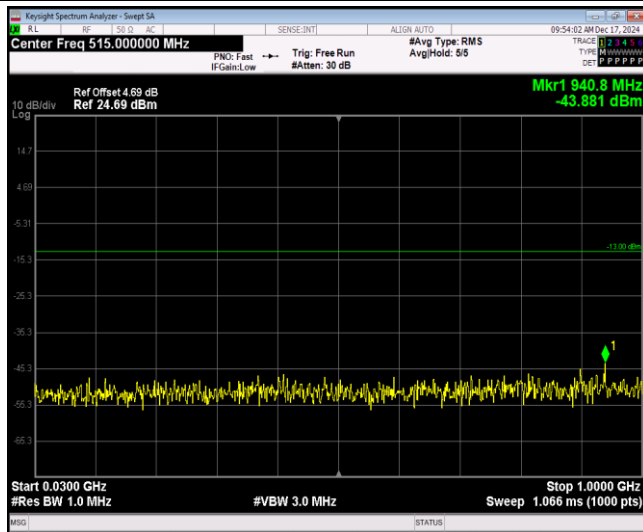
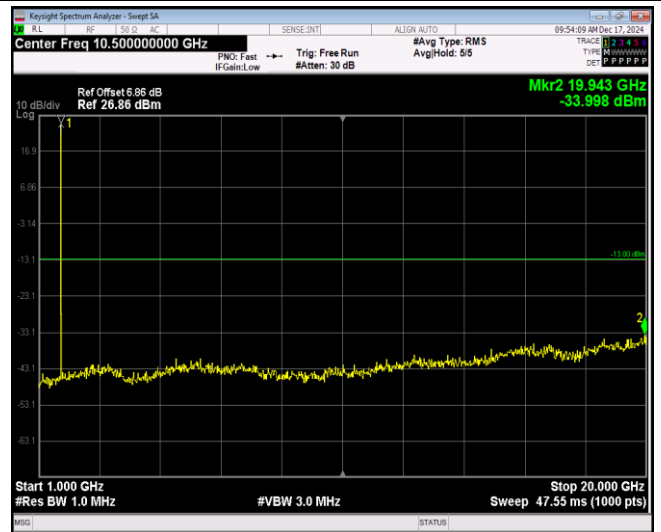


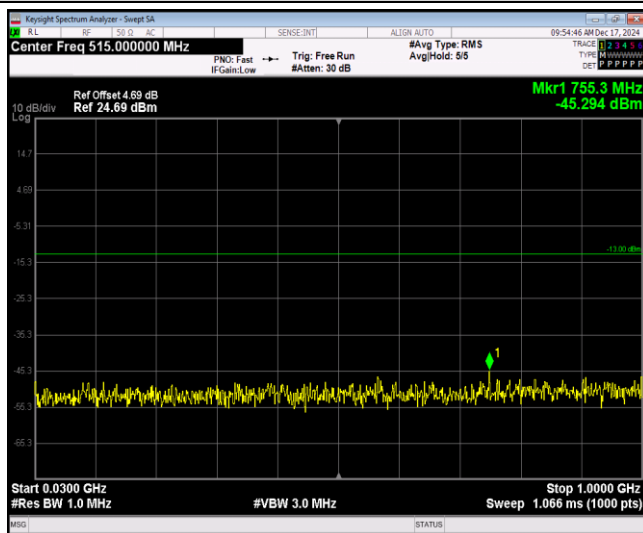
Band4-1.4MHz-16QAM-19957-1RB#0-Range1:30~1000MHz



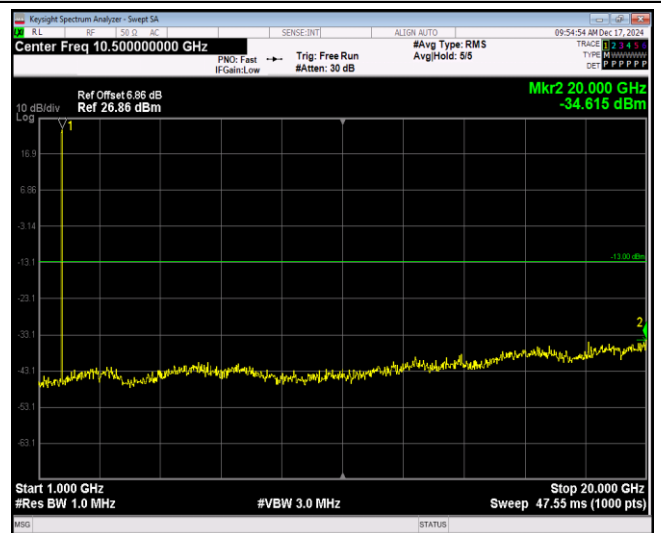
Band4-1.4MHz-16QAM-19957-1RB#0-Range2:1000~20000MHz



Band4-1.4MHz-16QAM-20175-1RB#0-Range1:30~1000MHz



Band4-1.4MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz

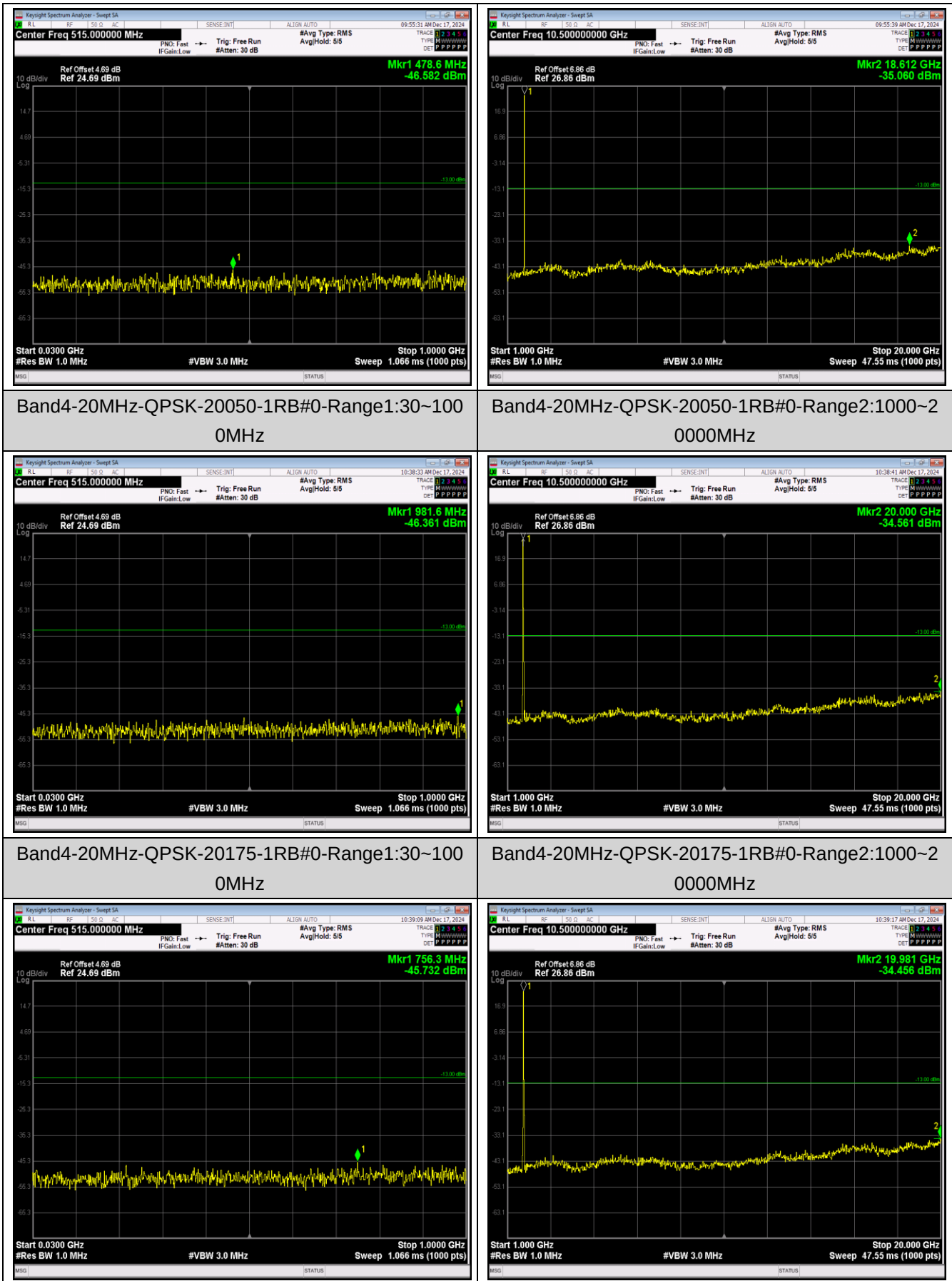


Band4-1.4MHz-16QAM-20393-1RB#0-Range1:30~1000MHz



Band4-1.4MHz-16QAM-20393-1RB#0-Range2:1000~20000MHz





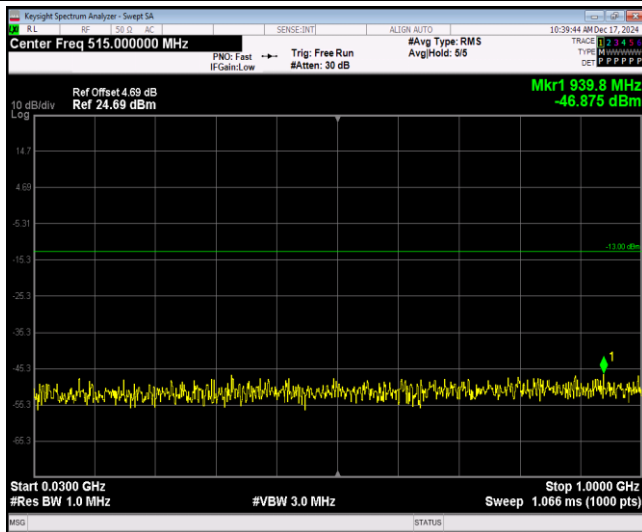
Band4-20MHz-QPSK-20050-1RB#0-Range1:30~100
0MHz

Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~2
0000MHz

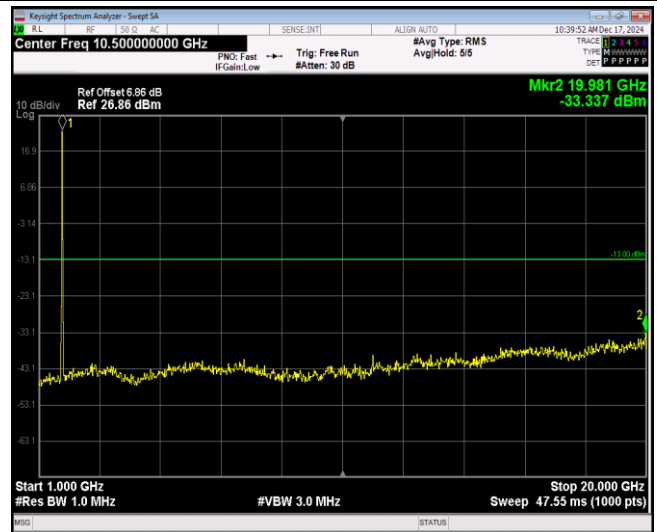
Band4-20MHz-QPSK-20175-1RB#0-Range1:30~100
0MHz

Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~2
0000MHz

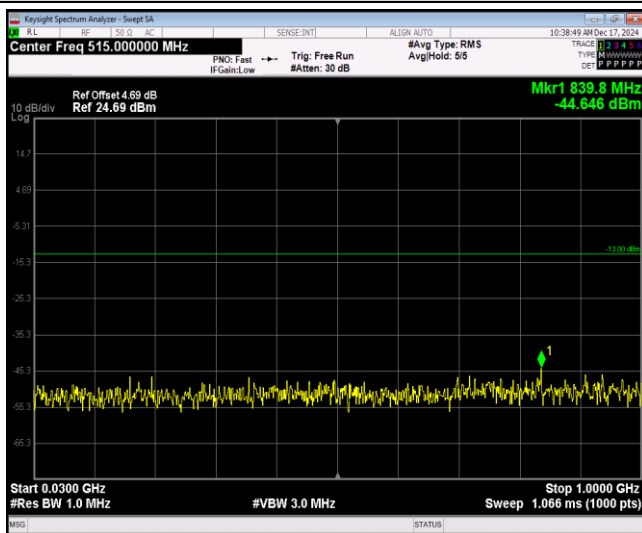
Band4-20MHz-QPSK-20300-1RB#0-Range1:30~100
0MHz



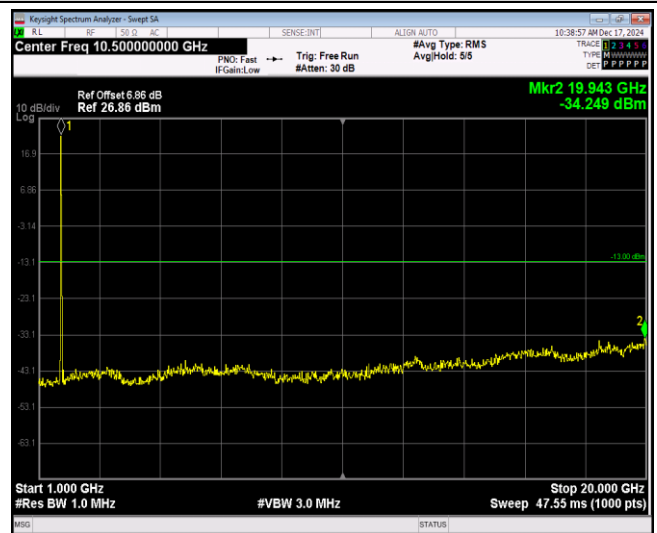
Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~2
0000MHz



Band4-20MHz-16QAM-20050-1RB#0-Range1:30~10
00MHz

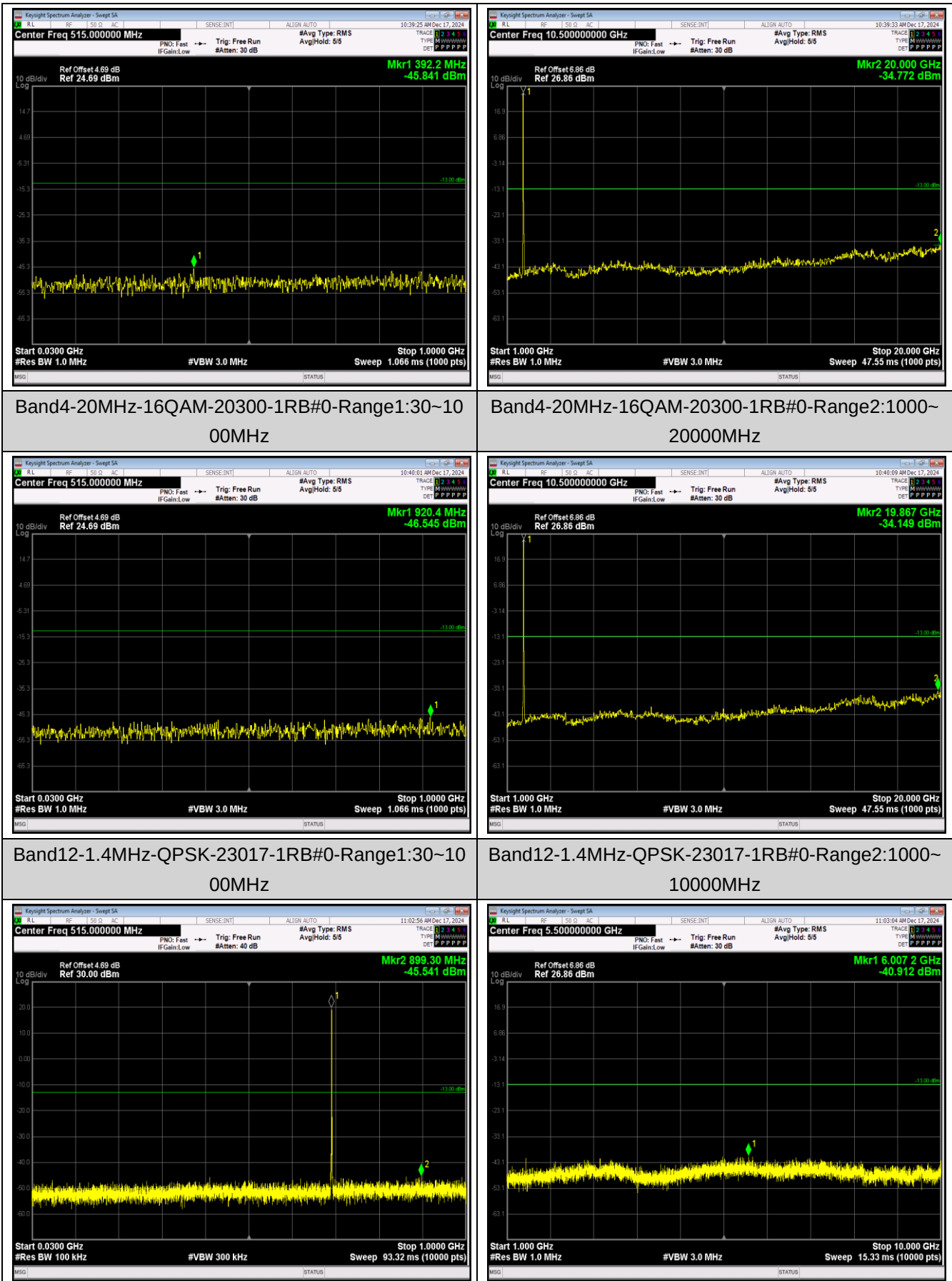


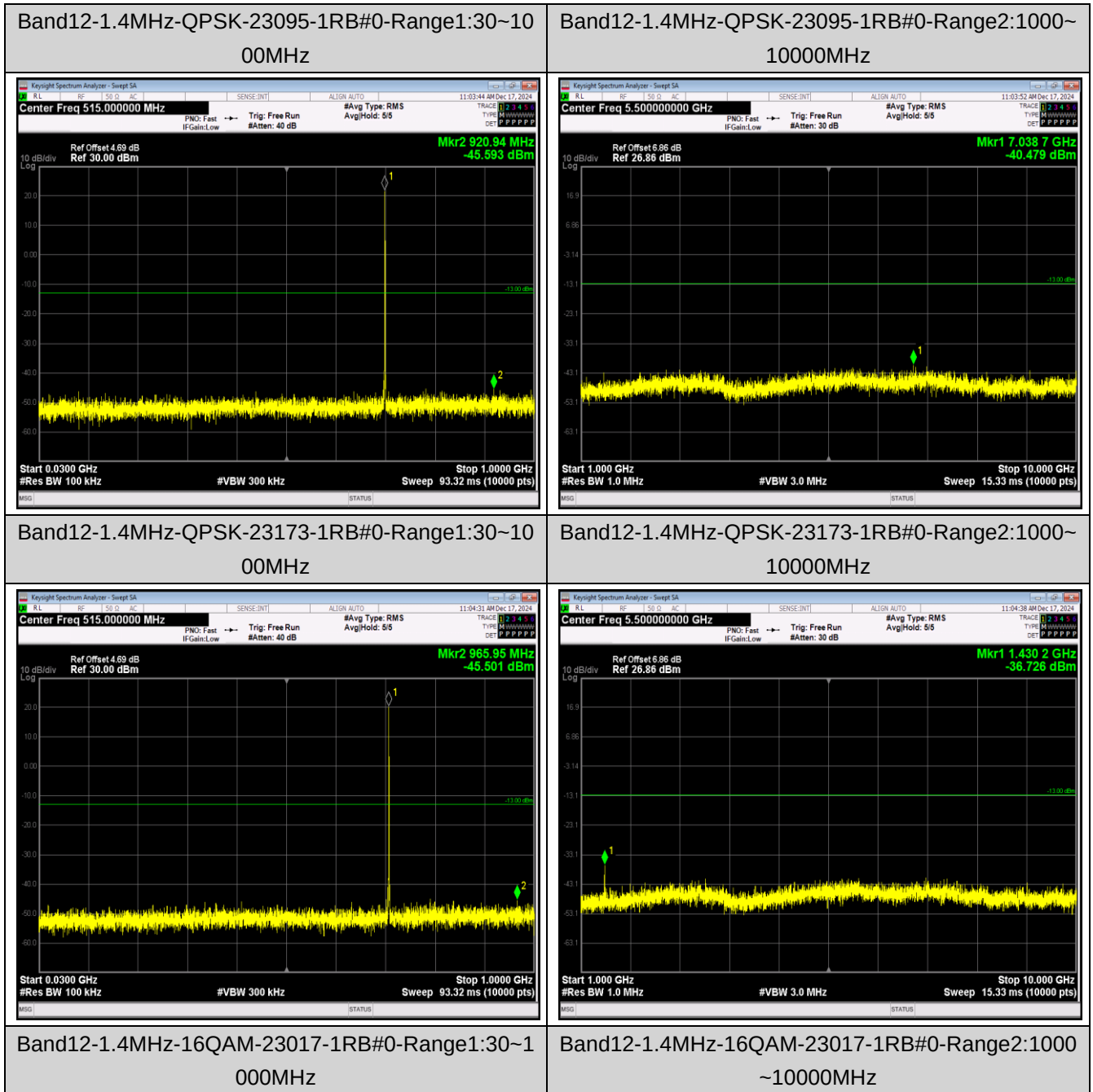
Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~
20000MHz

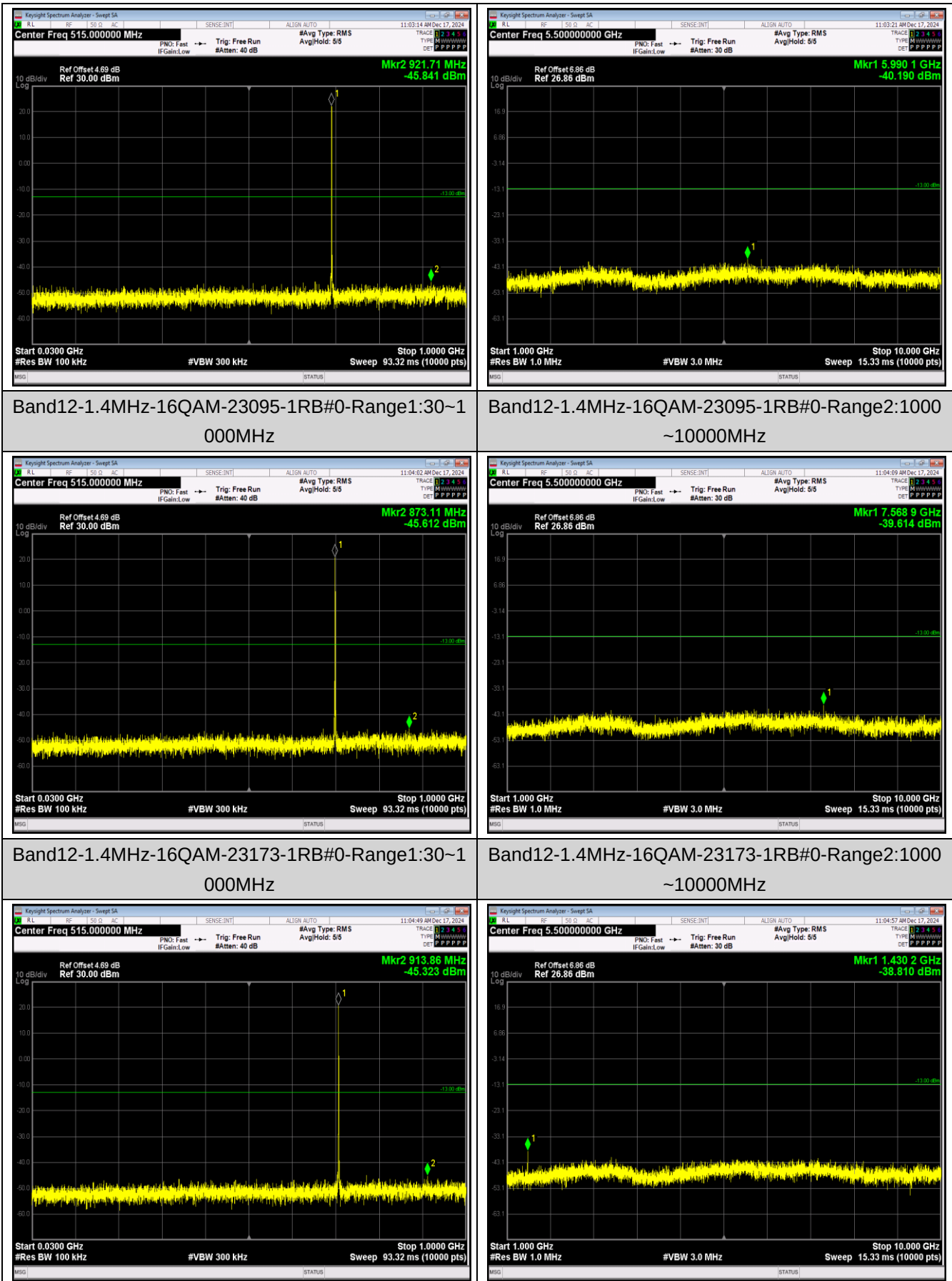


Band4-20MHz-16QAM-20175-1RB#0-Range1:30~10
00MHz

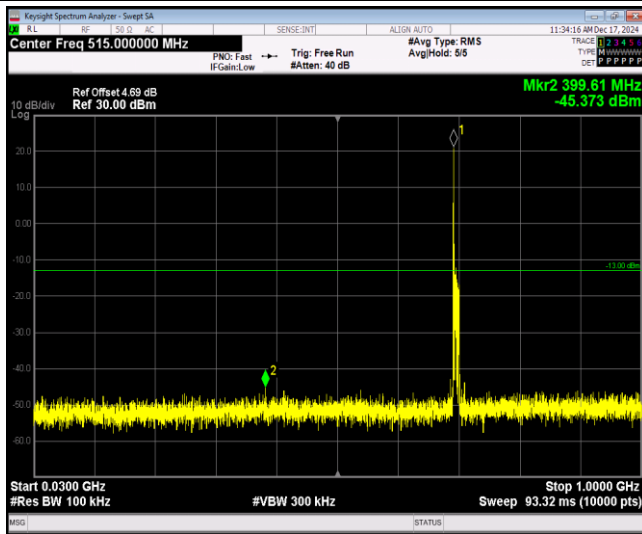
Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~
20000MHz



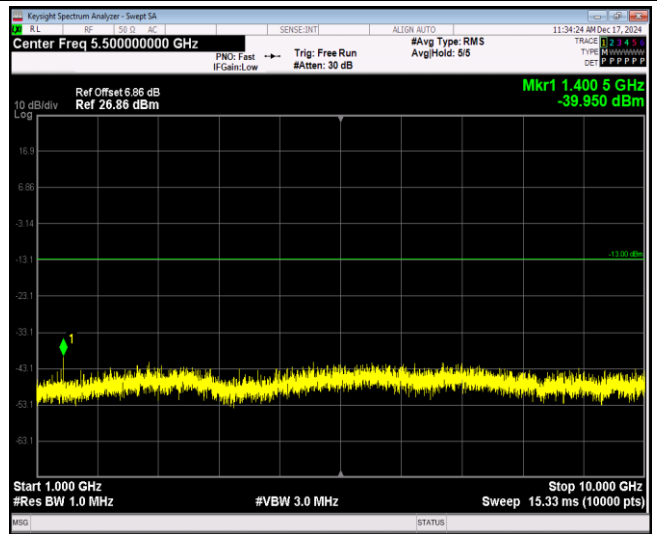




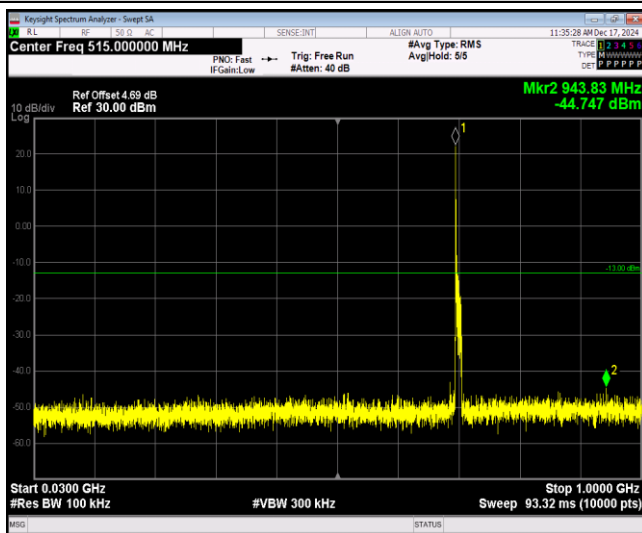
Band12-10MHz-QPSK-23060-1RB#0-Range1:30~1000MHz



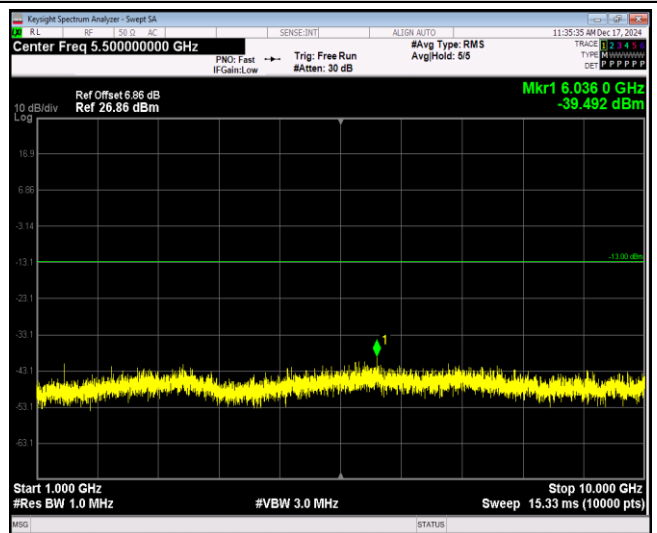
Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000MHz



Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



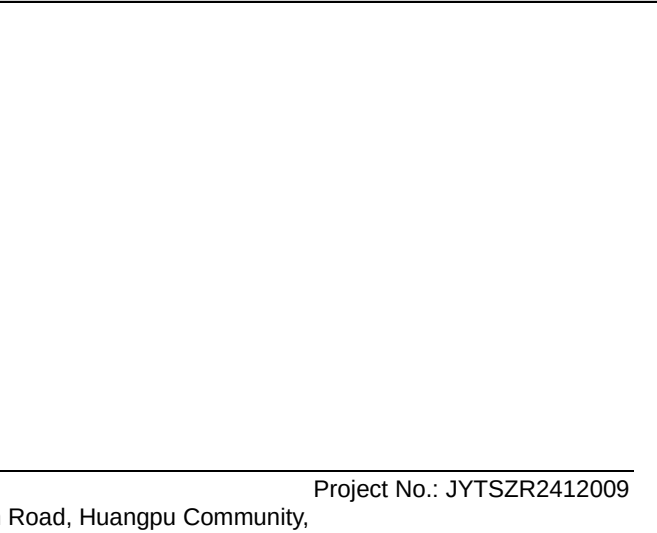
Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz

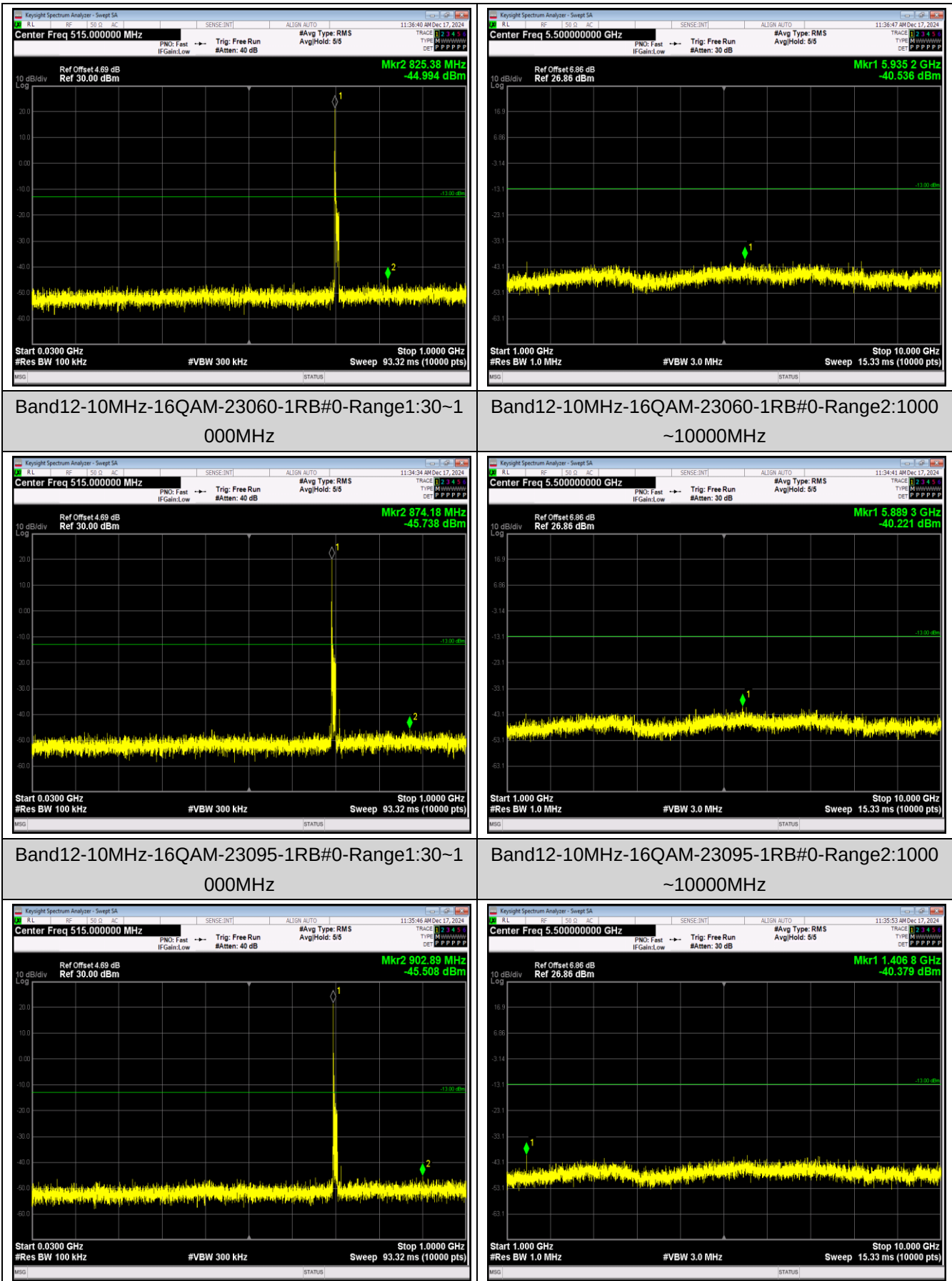


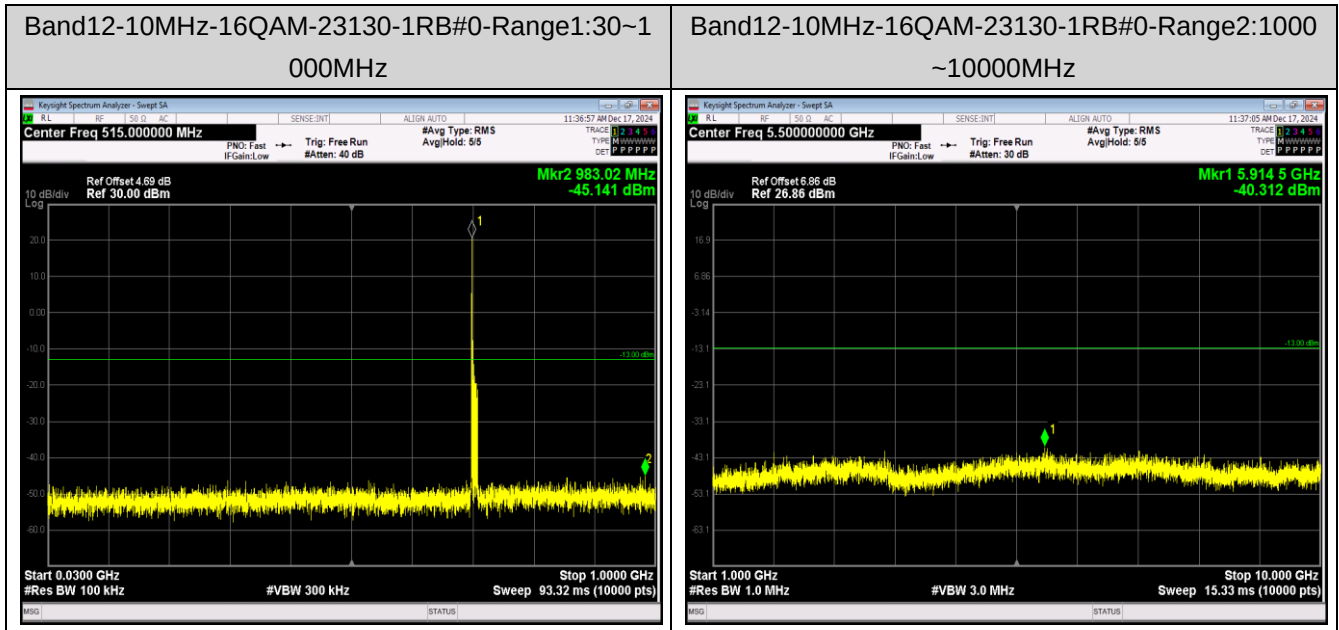
Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000MHz







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	36.62	0.019479	Within authorized band for Band 2	Pass
	-20	26.58	0.014138		
	-10	60.08	0.031957		
	0	30.36	0.016149		
	10	25.06	0.013330		
	20	51.13	0.027197		
	30	26.68	0.014191		
	40	20.37	0.010835		
	50	48.54	0.025819		
16QAM					
3.70	-30	31.84	0.016936	Within authorized band for Band 2	Pass
	-20	42.43	0.022569		
	-10	13.76	0.007319		
	0	22.26	0.011840		
	10	35.29	0.018771		
	20	47.86	0.025457		
	30	-5.04	-0.002681		
	40	18.85	0.010027		
	50	30.10	0.016011		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	22.30	0.011862	Within authorized band for Band 2	Pass
	3.70	-20.08	-0.010681		
	4.20	-13.22	-0.007032		
16QAM					
25	3.50	40.71	0.021654	Within authorized band for Band 2	Pass
	3.70	14.18	0.007543		
	4.20	19.96	0.010617		
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	23.53	0.013582	Within authorized band for Band 4	Pass
	-20	36.91	0.021304		
	-10	34.85	0.020115		
	0	38.51	0.022228		
	10	21.16	0.012214		
	20	34.50	0.019913		
	30	7.25	0.004185		
	40	8.15	0.004704		
	50	17.77	0.010257		
16QAM					
3.70	-30	43.23	0.024952	Within authorized band for Band 4	Pass
	-20	48.69	0.028104		
	-10	15.84	0.009143		
	0	20.86	0.012040		
	10	28.34	0.016358		
	20	33.89	0.019561		
	30	48.64	0.028075		
	40	14.62	0.008439		
	50	22.03	0.012716		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-10.21	-0.005893	Within authorized band for Band 4	Pass
	3.70	29.47	0.017010		
	4.20	35.69	0.020600		
16QAM					
25	3.50	17.97	0.010372	Within authorized band for Band 4	Pass
	3.70	27.52	0.015885		
	4.20	25.42	0.014672		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 Frequency=707.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	46.75	0.066078	Within authorized band for Band 12	Pass
	-20	34.92	0.049357		
	-10	28.21	0.039873		
	0	13.00	0.018375		
	10	40.30	0.056961		
	20	22.82	0.032254		
	30	47.75	0.067491		
	40	22.42	0.031689		
	50	41.74	0.058996		
16QAM					
3.70	-30	40.77	0.057625	Within authorized band for Band 12	Pass
	-20	43.97	0.062148		
	-10	-2.99	-0.004226		
	0	7.18	0.010148		
	10	12.06	0.017046		
	20	14.75	0.020848		
	30	19.56	0.027647		
	40	24.45	0.034558		
	50	27.11	0.038318		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	43.63	0.061668	Within authorized band for Band 12	Pass
	3.70	41.80	0.059081		
	4.20	50.38	0.071208		
16QAM					
25	3.50	30.37	0.042926	Within authorized band for Band 12	Pass
	3.70	18.67	0.026389		
	4.20	37.48	0.052975		
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
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS

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

Test Graphs

