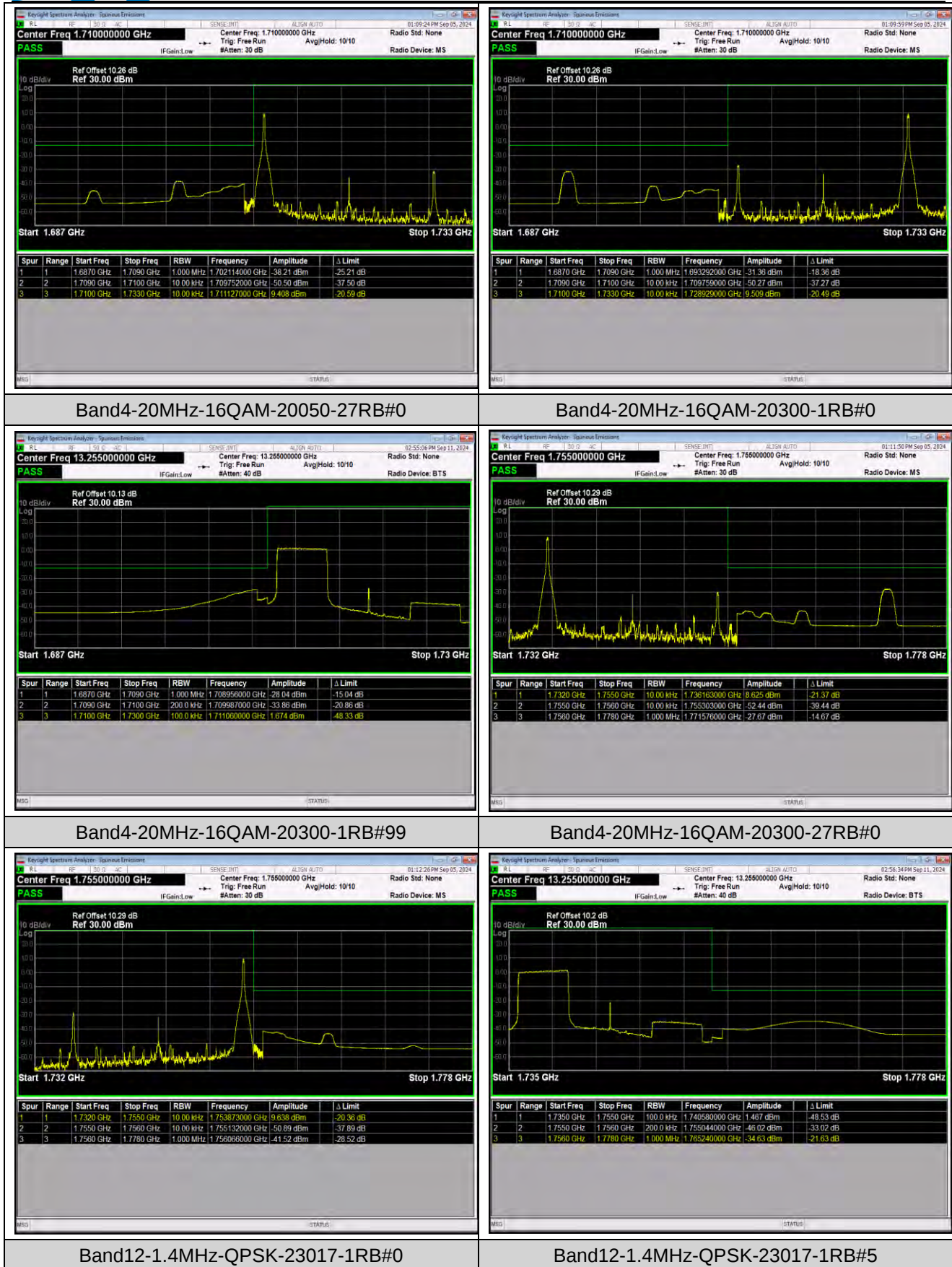




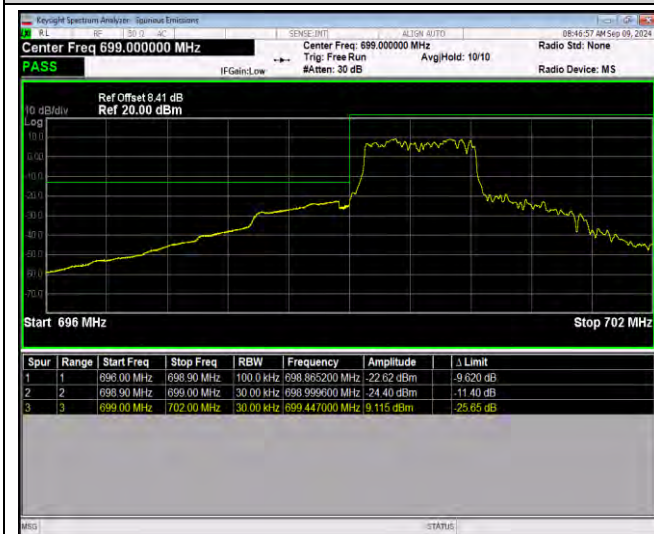




Band12-1.4MHz-QPSK-23017-6RB#0



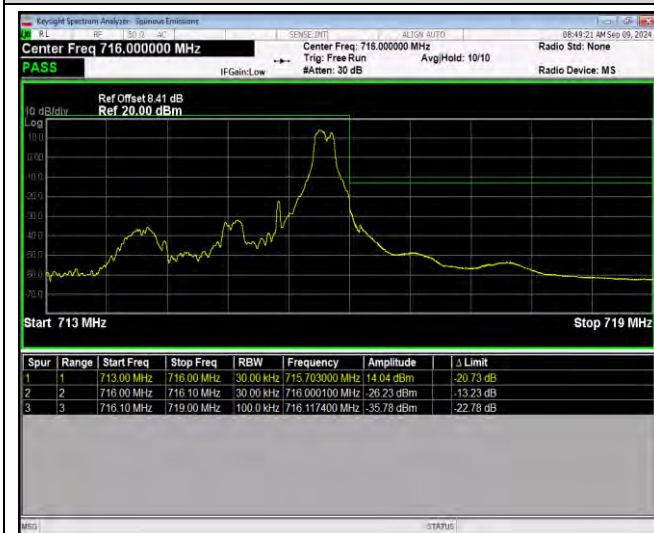
Band12-1.4MHz-QPSK-23173-1RB#0



Band12-1.4MHz-QPSK-23173-1RB#5



Band12-1.4MHz-QPSK-23173-6RB#0



Band12-1.4MHz-16QAM-23017-1RB#0



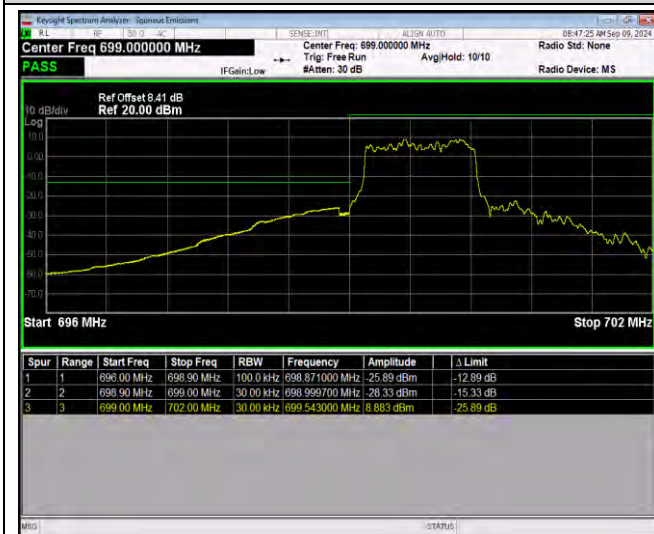
Band12-1.4MHz-16QAM-23017-1RB#5



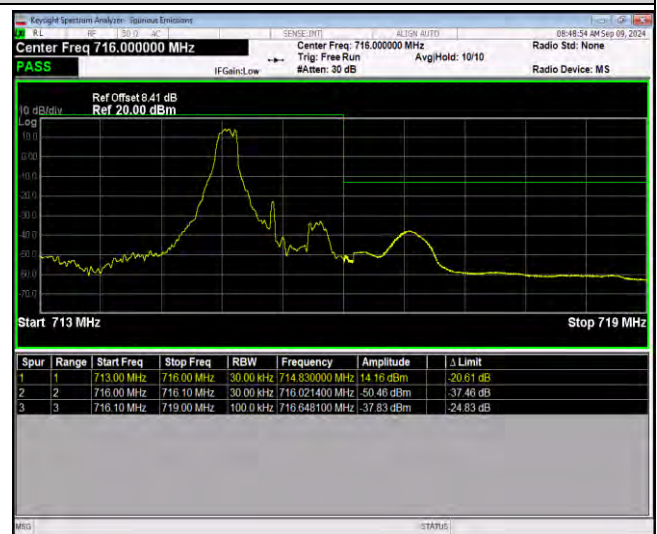
Band12-1.4MHz-16QAM-23017-6RB#0



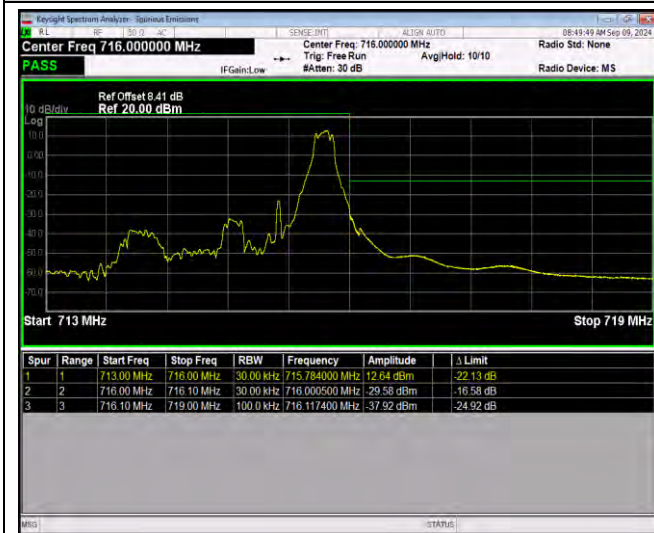
Band12-1.4MHz-16QAM-23173-1RB#0



Band12-1.4MHz-16QAM-23173-1RB#5



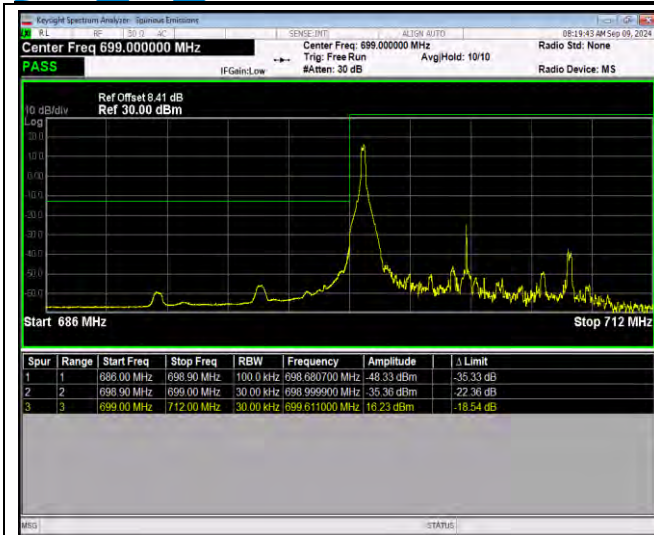
Band12-1.4MHz-16QAM-23173-6RB#0



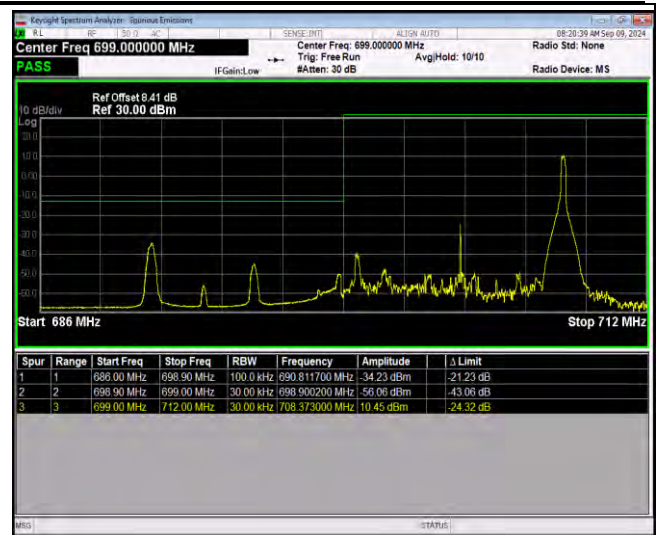
Band12-10MHz-QPSK-23060-1RB#0



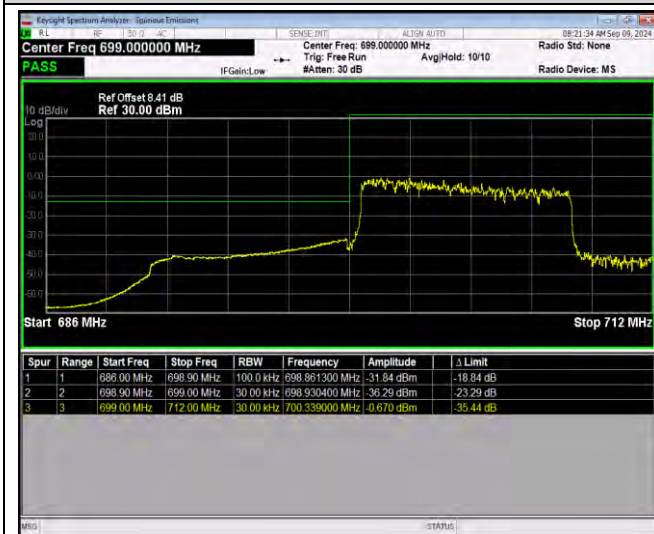
Band12-10MHz-QPSK-23060-1RB#49



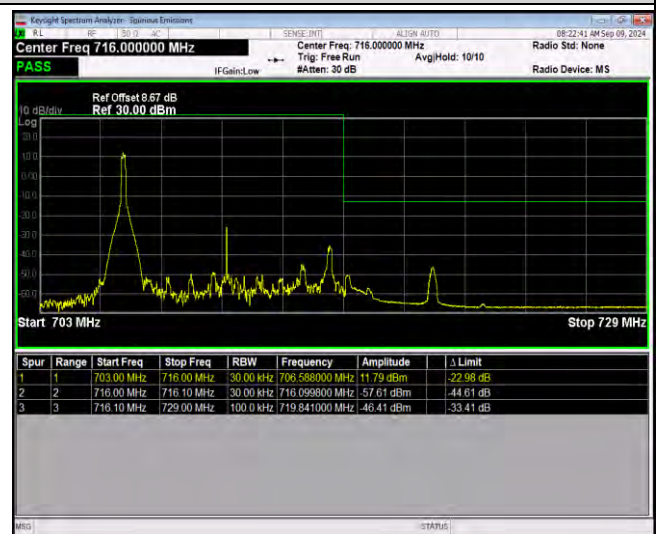
Band12-10MHz-QPSK-23060-50RB#0



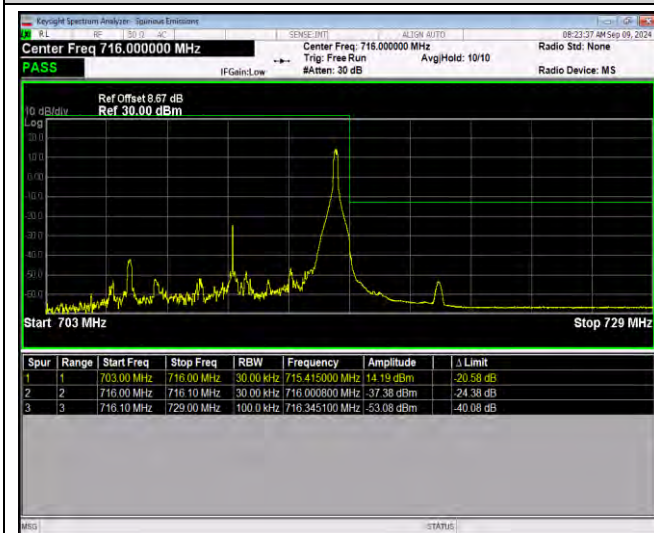
Band12-10MHz-QPSK-23130-1RB#0



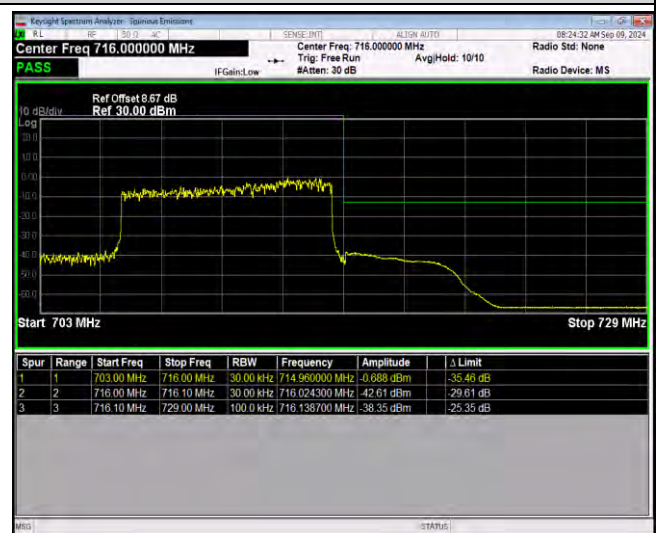
Band12-10MHz-QPSK-23130-1RB#49



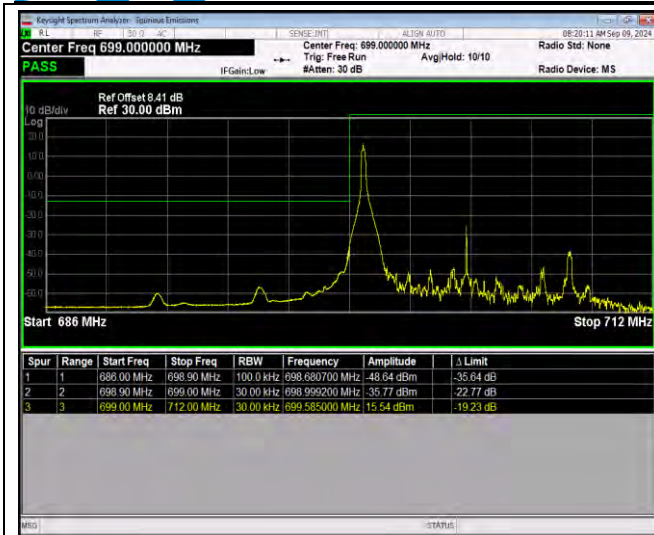
Band12-10MHz-QPSK-23130-50RB#0



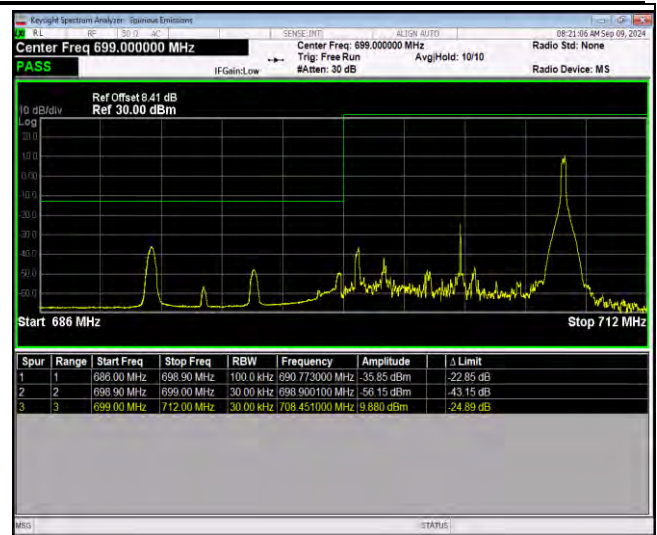
Band12-10MHz-16QAM-23060-1RB#0



Band12-10MHz-16QAM-23060-1RB#49



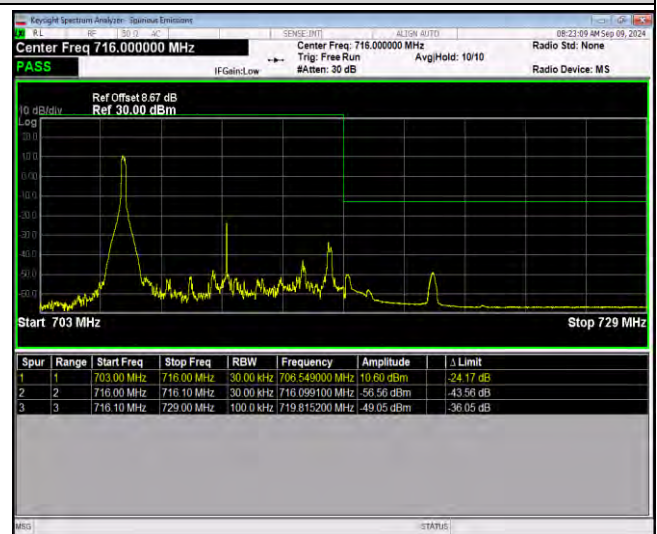
Band12-10MHz-16QAM-23060-27RB#0



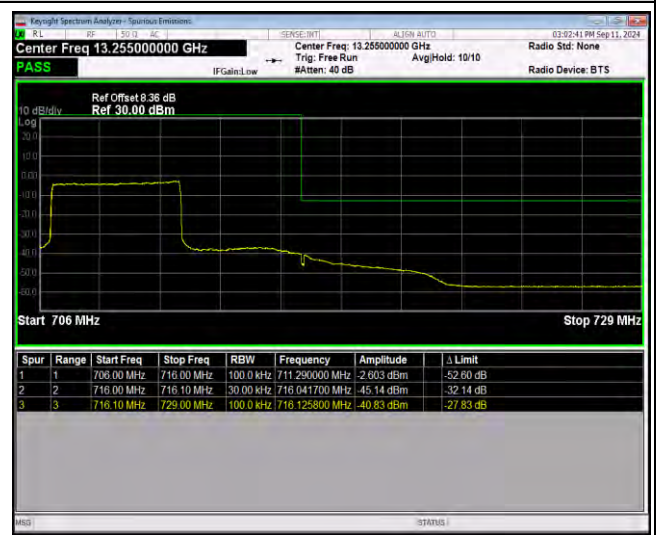
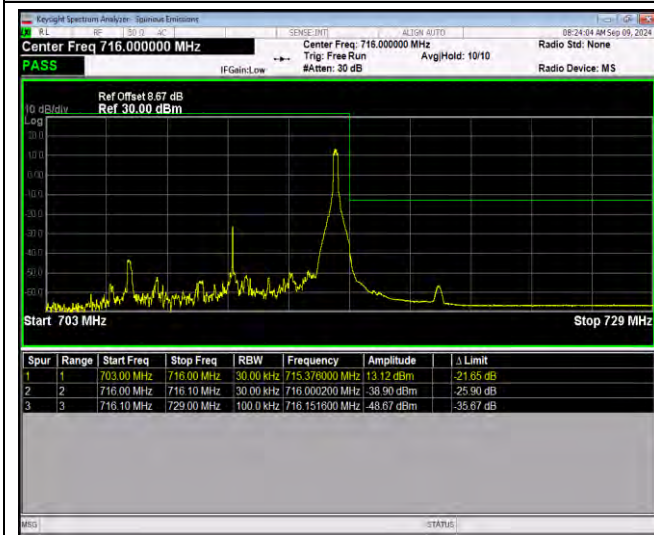
Band12-10MHz-16QAM-23130-1RB#0



Band12-10MHz-16QAM-23130-1RB#49



Band12-10MHz-16QAM-23130-27RB#0



Appendix E: Conducted Spurious Emission

Test Result

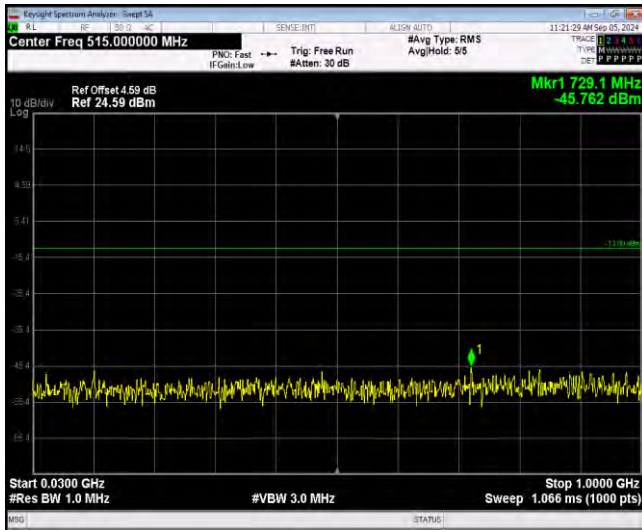
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	Range1:30~1000MHz	-45.76	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	Range2:1000~20000MHz	-34.9	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	Range1:30~1000MHz	-47.08	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	Range2:1000~20000MHz	-34.68	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	Range1:30~1000MHz	-47.04	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	Range2:1000~20000MHz	-34.85	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	Range1:30~1000MHz	-46.84	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	Range2:1000~20000MHz	-34.66	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	Range1:30~1000MHz	-45.34	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	Range2:1000~20000MHz	-34.49	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	Range1:30~1000MHz	-47	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	Range2:1000~20000MHz	-34.38	PASS
Band4	20MHz	QPSK	20050	1RB#0	Range1:30~1000MHz	-47.09	PASS
Band4	20MHz	QPSK	20050	1RB#0	Range2:1000~20000MHz	-34.93	PASS
Band4	20MHz	QPSK	20175	1RB#0	Range1:30~1000MHz	-46.23	PASS
Band4	20MHz	QPSK	20175	1RB#0	Range2:1000~20000MHz	-34.59	PASS
Band4	20MHz	QPSK	20300	1RB#0	Range1:30~1000MHz	-46.58	PASS
Band4	20MHz	QPSK	20300	1RB#0	Range2:1000~20000MHz	-34.73	PASS
Band4	20MHz	16QAM	20050	1RB#0	Range1:30~1000MHz	-45.28	PASS
Band4	20MHz	16QAM	20050	1RB#0	Range2:1000~20000MHz	-34.66	PASS
Band4	20MHz	16QAM	20175	1RB#0	Range1:30~1000MHz	-46.14	PASS
Band4	20MHz	16QAM	20175	1RB#0	Range2:1000~20000MHz	-34.07	PASS
Band4	20MHz	16QAM	20300	1RB#0	Range1:30~1000MHz	-45.31	PASS
Band4	20MHz	16QAM	20300	1RB#0	Range2:1000~20000MHz	-33.89	PASS
Band12	1.4MHz	QPSK	23017	1RB#0	Range1:30~1000MHz	-46.07	PASS
Band12	1.4MHz	QPSK	23017	1RB#0	Range2:1000~10000MHz	-41.74	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-45.94	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-40.36	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	Range1:30~1000MHz	-45.37	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	Range2:1000~10000MHz	-40.34	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	Range1:30~1000MHz	-45.55	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	Range2:1000~10000MHz	-40.89	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-45.21	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-40.92	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	Range1:30~1000MHz	-44.88	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	Range2:1000~10000MHz	-41.02	PASS
Band12	10MHz	QPSK	23060	1RB#0	Range1:30~1000MHz	-45.48	PASS
Band12	10MHz	QPSK	23060	1RB#0	Range2:1000~10000MHz	-41.04	PASS

Band12	10MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-45.42	PASS
Band12	10MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-41.25	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range1:30~1000MHz	-46.53	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range2:1000~10000MHz	-40.67	PASS
Band12	10MHz	16QAM	23060	1RB#0	Range1:30~1000MHz	-45.32	PASS
Band12	10MHz	16QAM	23060	1RB#0	Range2:1000~10000MHz	-41.75	PASS
Band12	10MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-45.74	PASS
Band12	10MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-40.84	PASS
Band12	10MHz	16QAM	23130	1RB#0	Range1:30~1000MHz	-46.61	PASS
Band12	10MHz	16QAM	23130	1RB#0	Range2:1000~10000MHz	-41.37	PASS

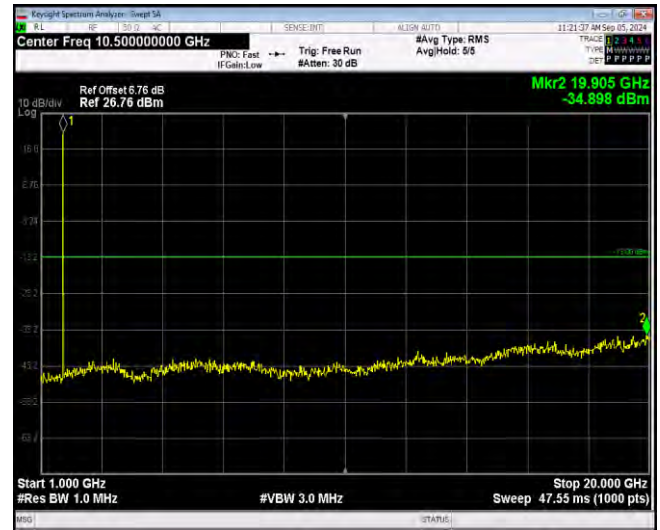
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

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



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



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

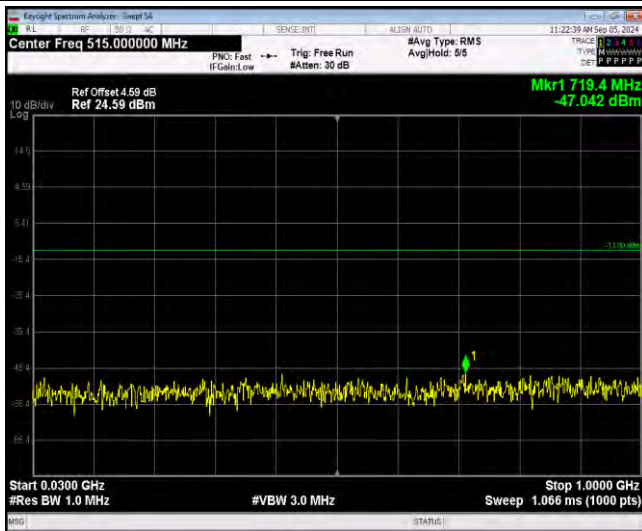


Band4-1.4MHz-QPSK-20175-1RB#0-Range2:1000~20000 MHz



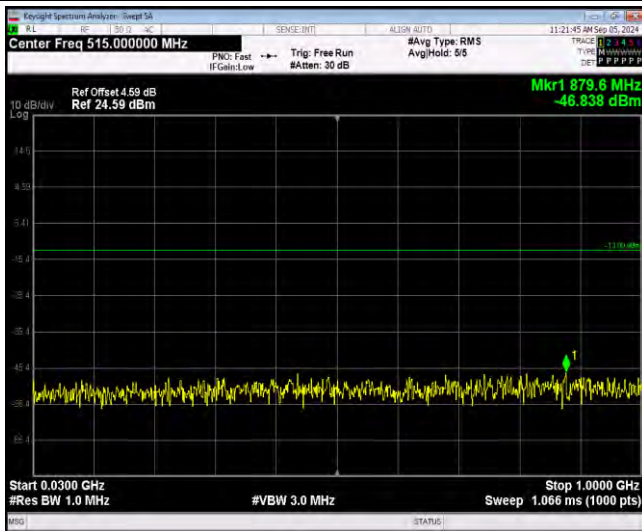
Band4-1.4MHz-QPSK-20393-1RB#0-Range1:30~1000MHz

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



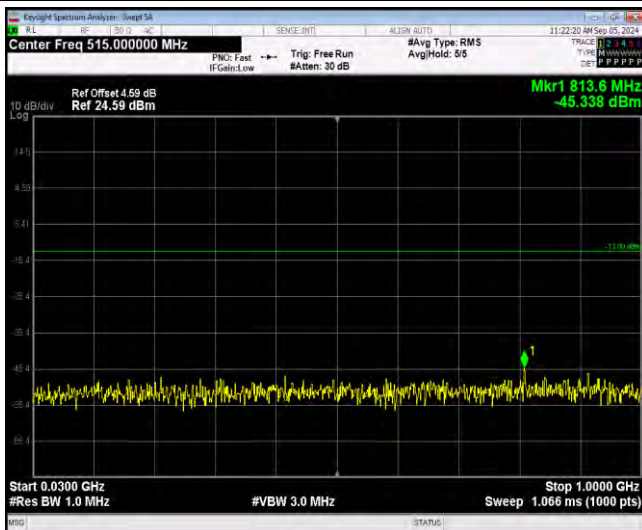
Band4-1.4MHz-16QAM-19957-1RB#0-Range1:30~1000M
Hz

Band4-1.4MHz-16QAM-19957-1RB#0-Range2:1000~2000
OMHz



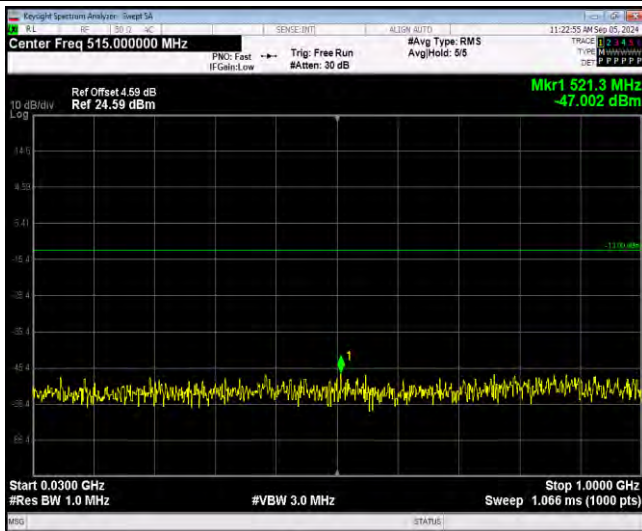
Band4-1.4MHz-16QAM-20175-1RB#0-Range1:30~1000M
Hz

Band4-1.4MHz-16QAM-20175-1RB#0-Range2:1000~2000
OMHz



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

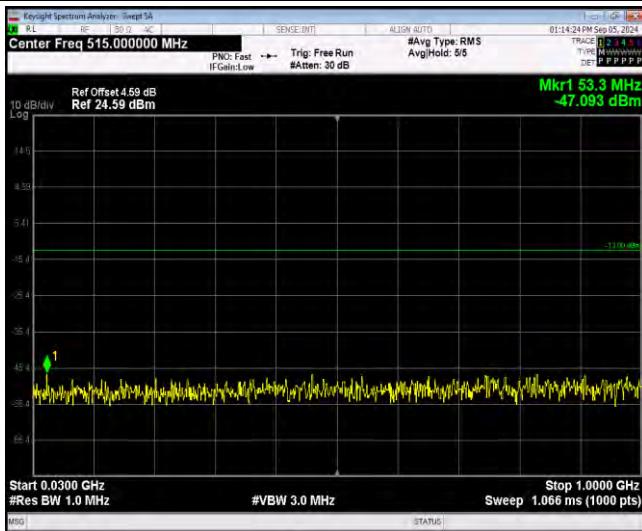
Band4-1.4MHz-16QAM-20393-1RB#0-Range2:1000~2000
OMHz



Band4-20MHz-QPSK-20050-1RB#0-Range1:30~1000MHz



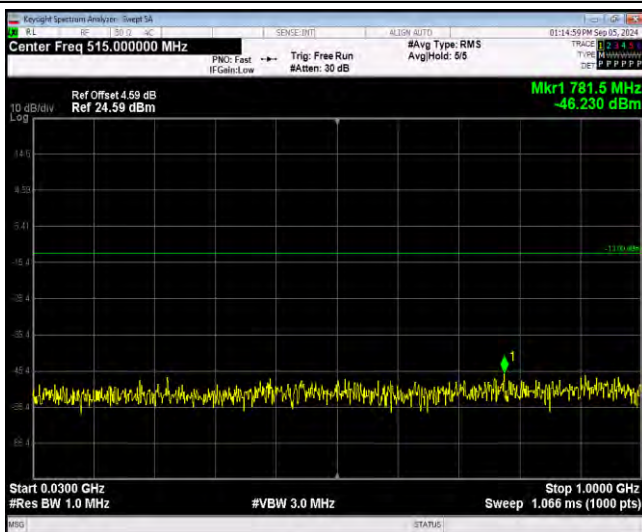
Band4-20MHz-QPSK-20050-1RB#0-Range2:1000~20000 MHz



Band4-20MHz-QPSK-20175-1RB#0-Range1:30~1000MHz



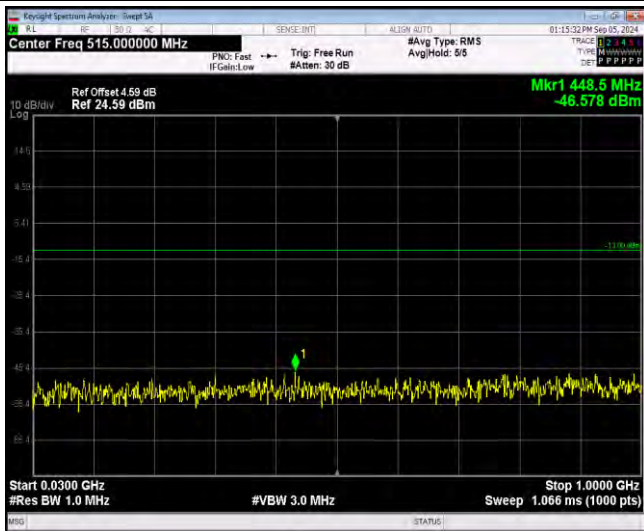
Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000 MHz



Band4-20MHz-QPSK-20300-1RB#0-Range1:30~1000MHz



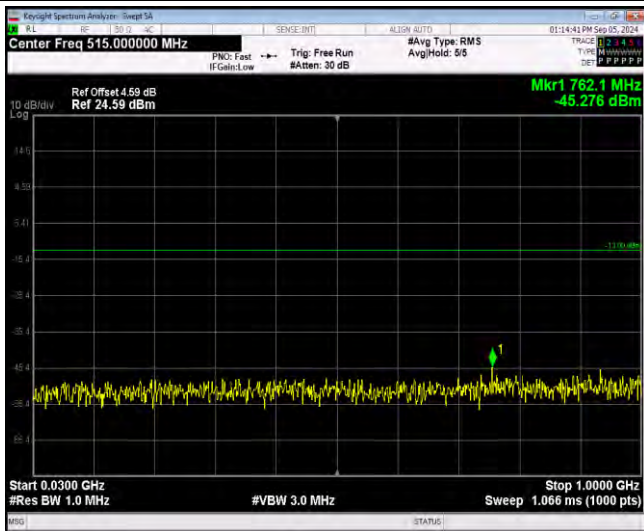
Band4-20MHz-QPSK-20300-1RB#0-Range2:1000~20000 MHz



Band4-20MHz-16QAM-20050-1RB#0-Range1:30~1000MH
Z



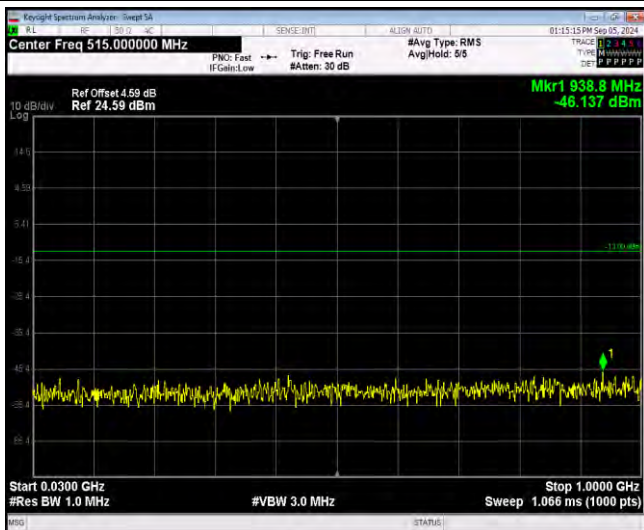
Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~20000
MHz



Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MH
Z



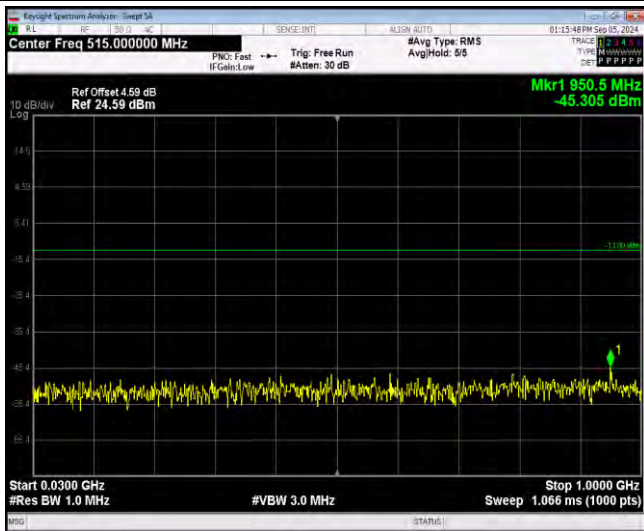
Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~20000
MHz



Band4-20MHz-16QAM-20300-1RB#0-Range1:30~1000MH
Z



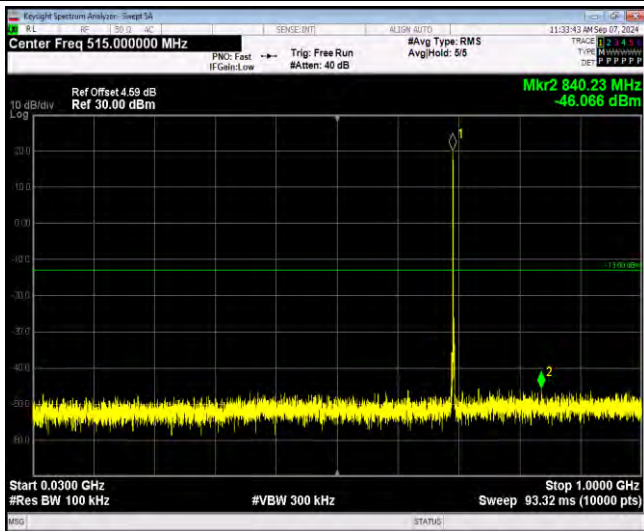
Band4-20MHz-16QAM-20300-1RB#0-Range2:1000~20000
MHz



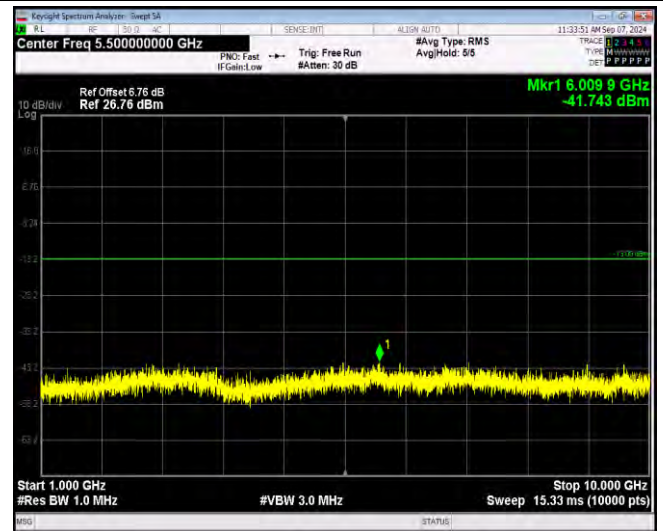
Band12-1.4MHz-QPSK-23017-1RB#0-Range1:30~1000MH
Z



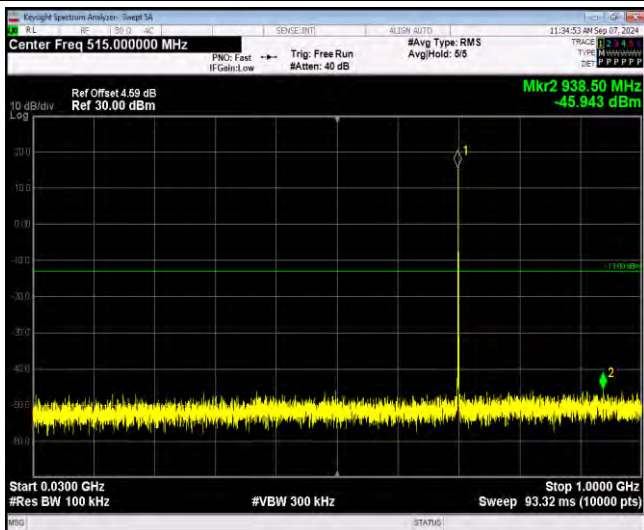
Band12-1.4MHz-QPSK-23017-1RB#0-Range2:1000~1000
OMHz



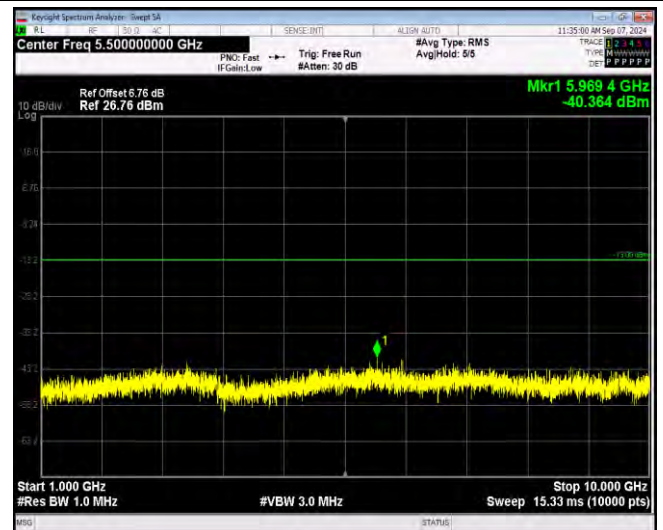
Band12-1.4MHz-QPSK-23095-1RB#0-Range1:30~1000MH
Z



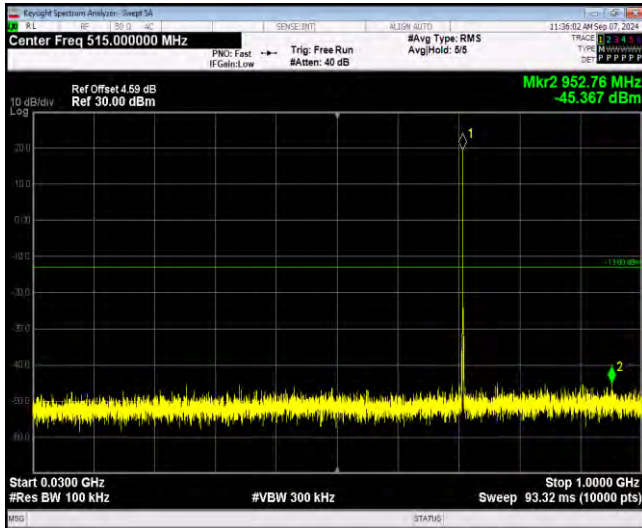
Band12-1.4MHz-QPSK-23095-1RB#0-Range2:1000~1000
OMHz



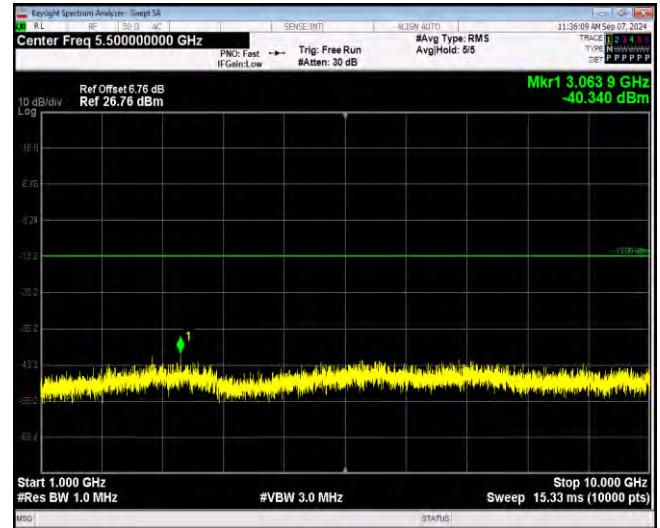
Band12-1.4MHz-QPSK-23173-1RB#0-Range1:30~1000MH
Z



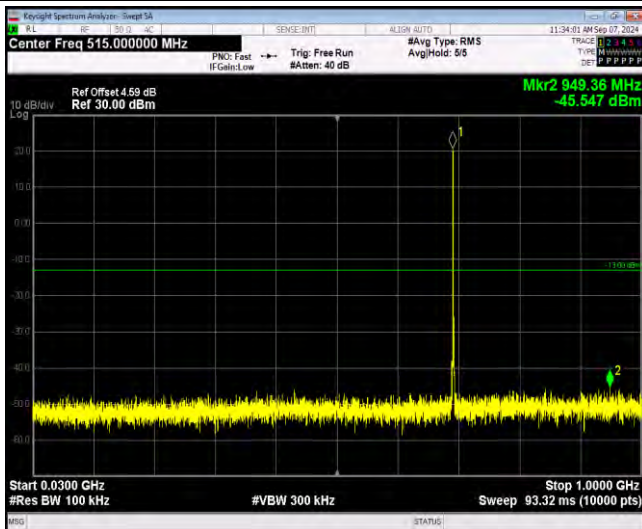
Band12-1.4MHz-QPSK-23173-1RB#0-Range2:1000~1000
OMHz



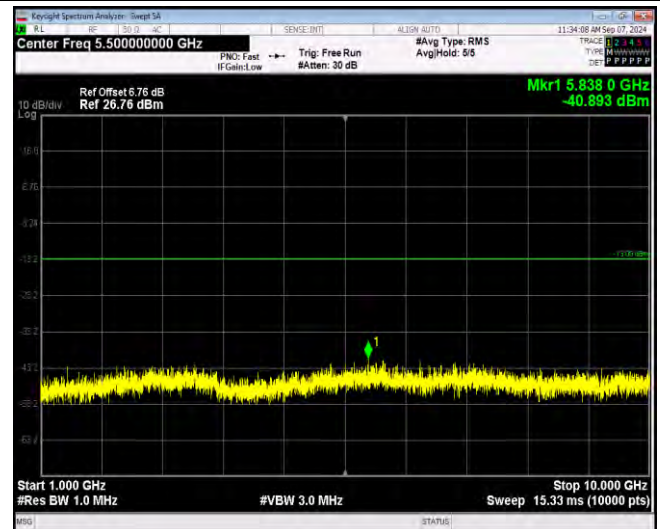
Band12-1.4MHz-16QAM-23017-1RB#0-Range1:30~1000M
Hz



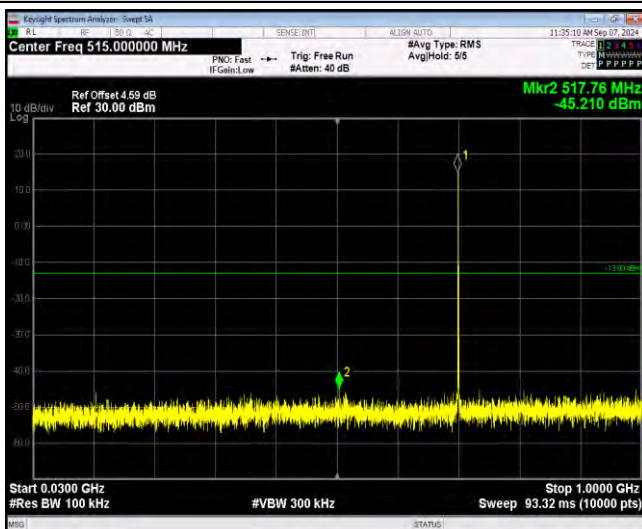
Band12-1.4MHz-16QAM-23017-1RB#0-Range2:1000~100
00MHz



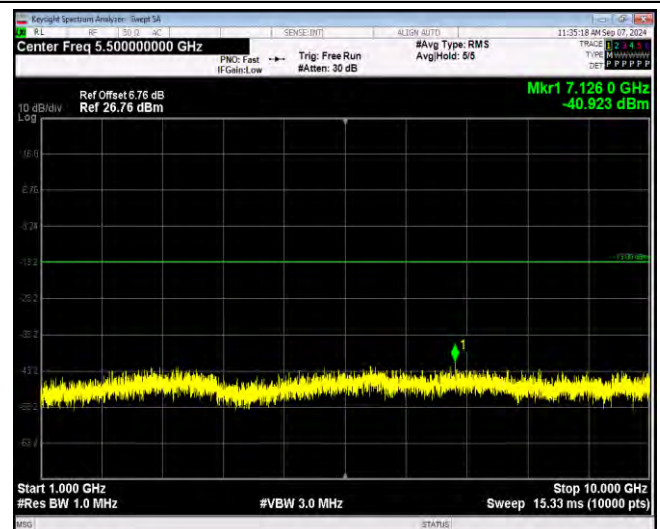
Band12-1.4MHz-16QAM-23095-1RB#0-Range1:30~1000M
Hz



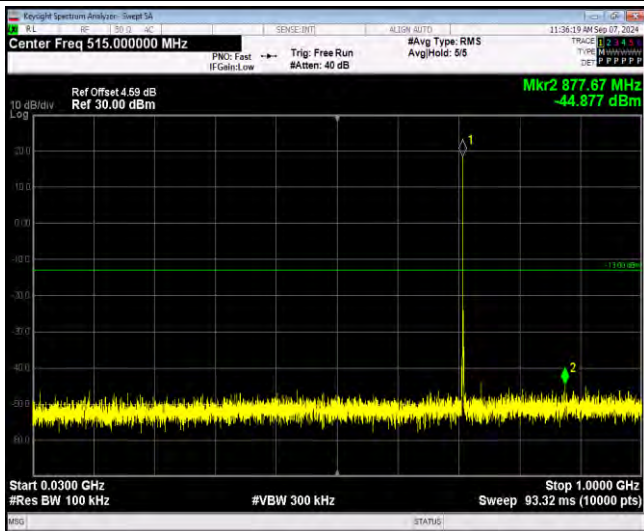
Band12-1.4MHz-16QAM-23095-1RB#0-Range2:1000~100
00MHz



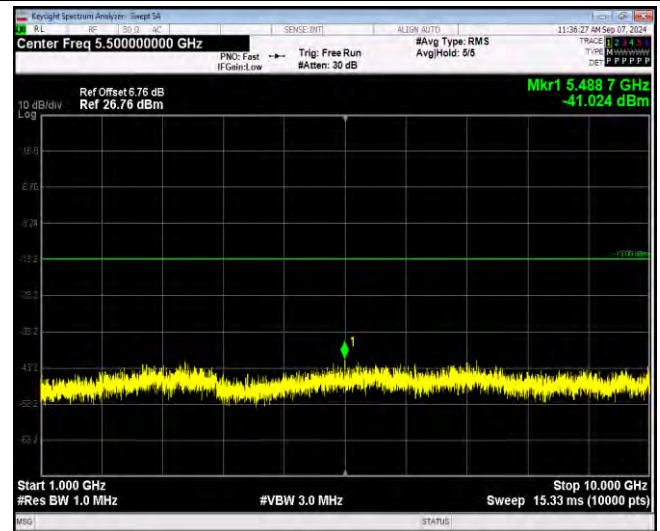
Band12-1.4MHz-16QAM-23173-1RB#0-Range1:30~1000M
Hz



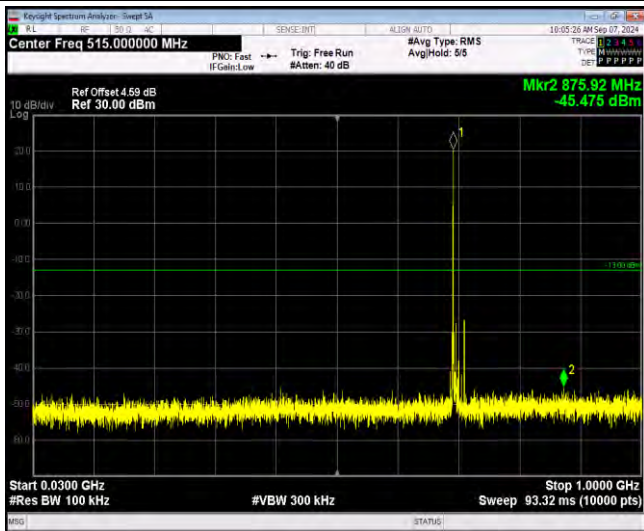
Band12-1.4MHz-16QAM-23173-1RB#0-Range2:1000~100
00MHz



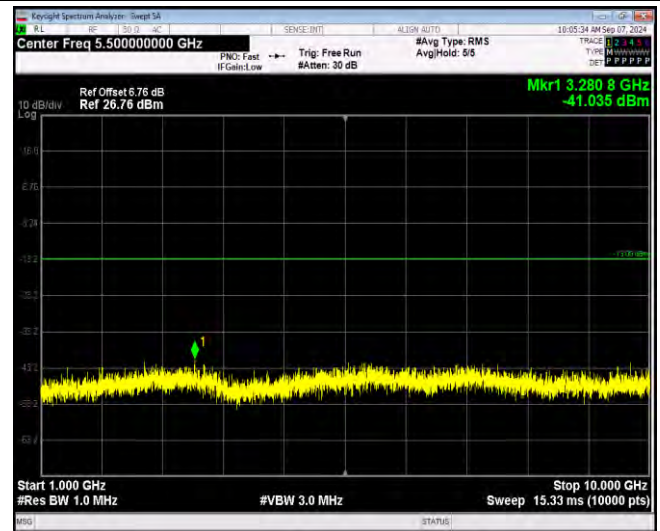
Band12-10MHz-QPSK-23060-1RB#0-Range1:30~1000MH
Z



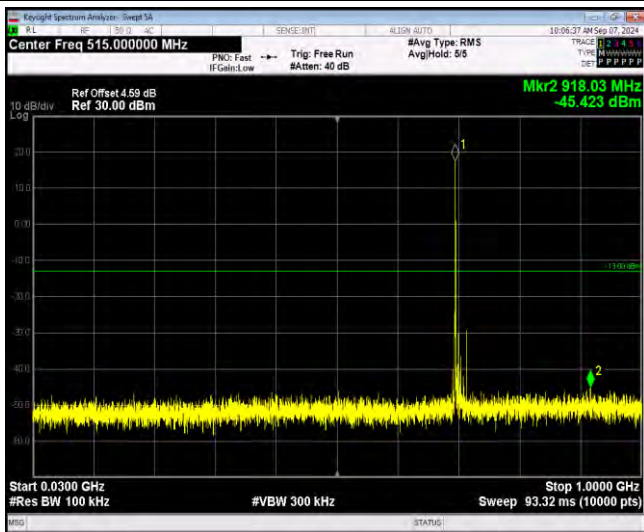
Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000
MHz



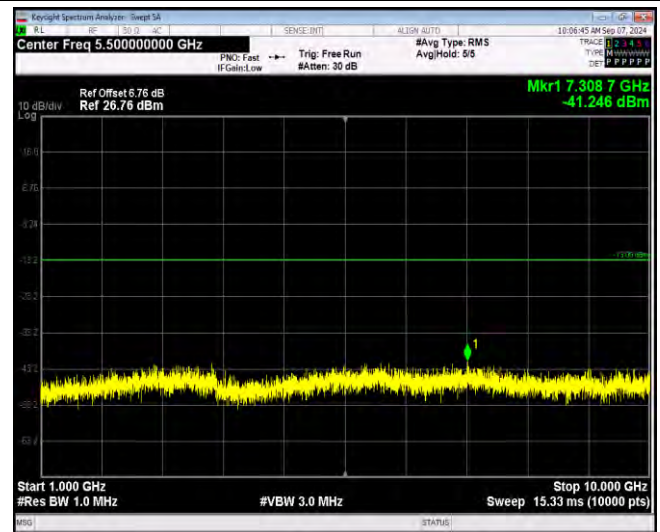
Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MH
Z



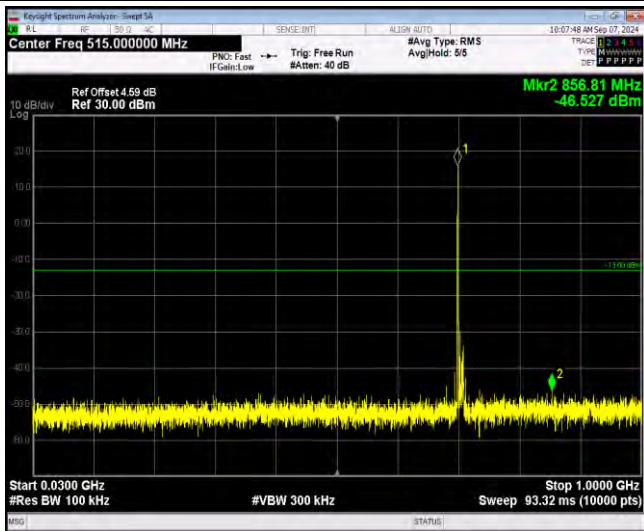
Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000
MHz



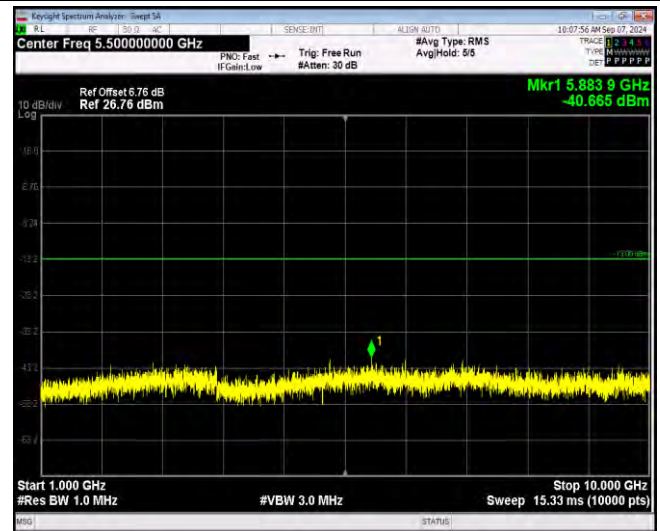
Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MH
Z



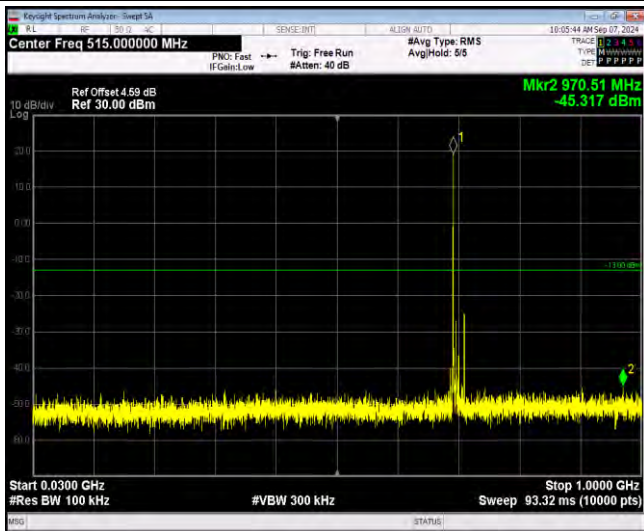
Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000
MHz



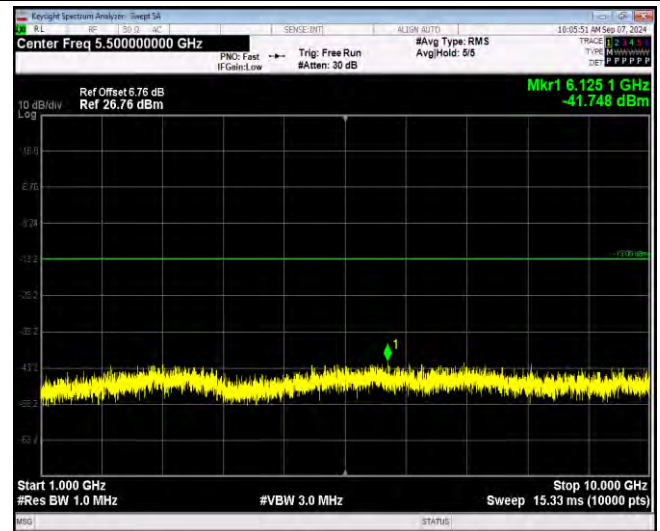
Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000M
Hz



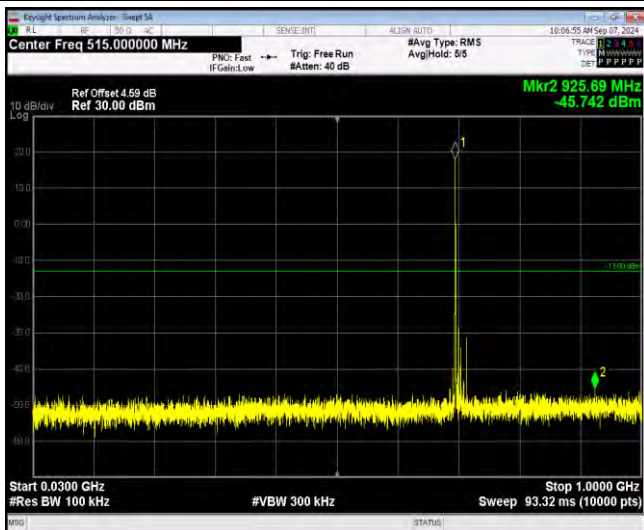
Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~1000
OMHz



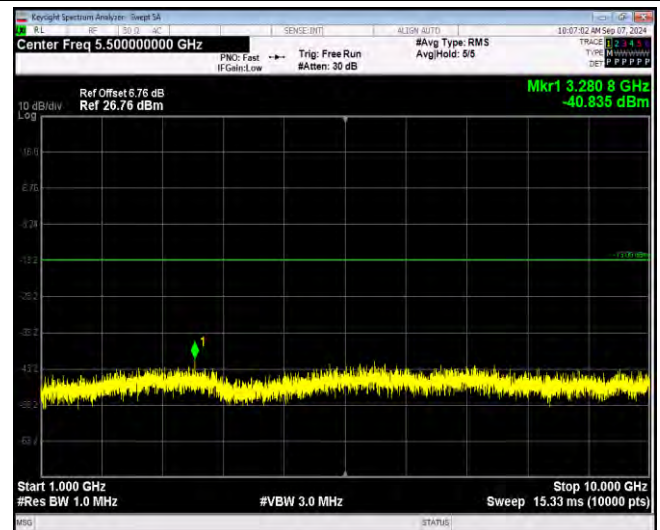
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000M
Hz



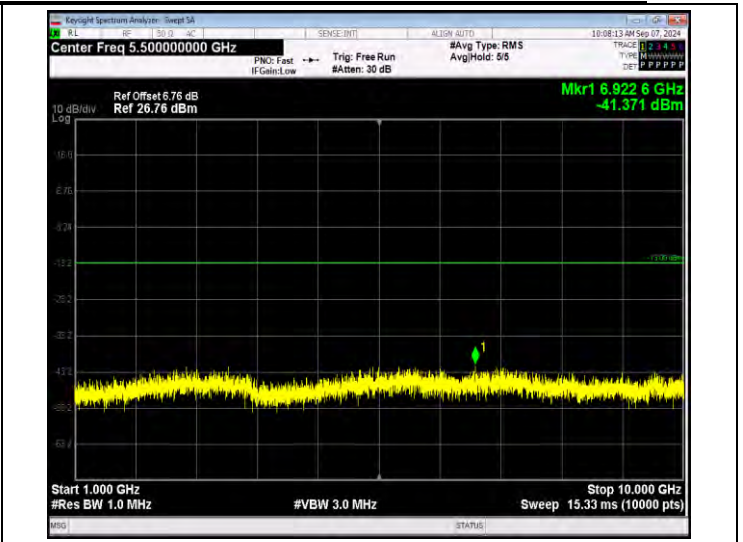
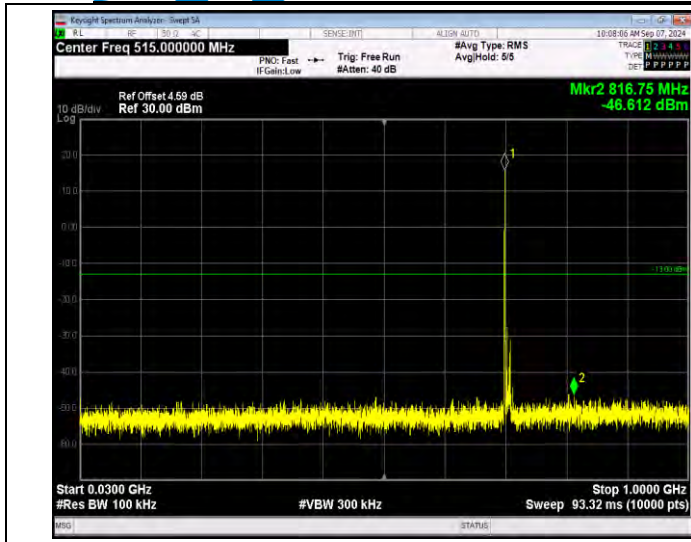
Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~1000
OMHz



Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000M
Hz



Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~1000
OMHz



Appendix F: Frequency Stability

Test Result

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	-23.36	-0.013483	Within authorized band for Band 4	Pass
	-20	-25.99	-0.015001		
	-10	-26.49	-0.015290		
	0	-20.10	-0.011602		
	10	24.30	0.014026		
	20	25.15	0.014517		
	30	16.09	0.009287		
	40	24.00	0.013853		
	50	24.35	0.014055		
16QAM					
3.70	-30	26.78	0.015457	Within authorized band for Band 4	Pass
	-20	28.04	0.016185		
	-10	26.98	0.015573		
	0	24.35	0.014055		
	10	22.92	0.013229		
	20	26.36	0.015215		
	30	24.52	0.014153		
	40	25.98	0.014996		
	50	23.80	0.013737		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-24.09	-0.013905	Within authorized band for Band 4	Pass
	3.70	-27.07	-0.015625		
	4.25	-24.33	-0.014043		
16QAM					
25	3.50	24.86	0.014349	Within authorized band for Band 4	Pass
	3.70	24.91	0.014378		
	4.25	26.25	0.015152		
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	-28.47	-0.040240	Within authorized band for Band 12	Pass
	-20	-29.34	-0.041470		
	-10	-19.28	-0.027251		
	0	-17.47	-0.024693		
	10	-28.62	-0.040452		
	20	-26.26	-0.037117		
	30	-16.01	-0.022629		
	40	6.64	0.009385		
	50	26.64	0.037654		
16QAM					
3.70	-30	22.65	0.032014	Within authorized band for Band 12	Pass
	-20	18.17	0.025682		
	-10	14.33	0.020254		
	0	30.23	0.042728		
	10	22.77	0.032184		
	20	18.44	0.026064		
	30	28.78	0.040678		
	40	29.87	0.042219		
	50	28.08	0.039689		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-25.82	-0.036495	Within authorized band for Band 12	Pass
	3.70	-27.69	-0.039138		
	4.25	-29.61	-0.041852		
16QAM					
25	3.50	17.64	0.024933	Within authorized band for Band 12	Pass
	3.70	13.83	0.019548		
	4.25	16.37	0.023138		
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	Verdict
Band4	20MHz	QPSK	20175	100RB#0	PASS
Band4	20MHz	16QAM	20175	27RB#0	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS
Band12	10MHz	16QAM	23095	27RB#0	PASS

Test Graphs

