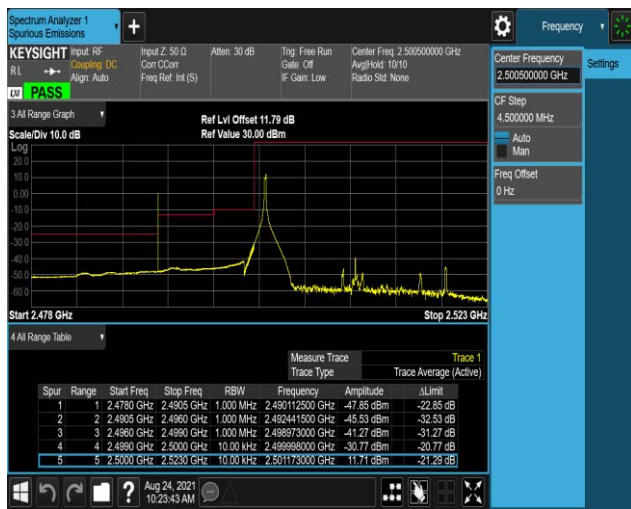
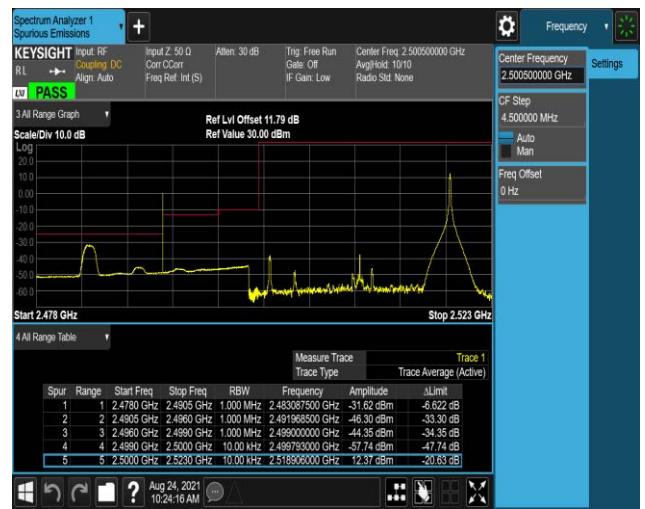


Band7-20MHz-QPSK-20850-1RB#0



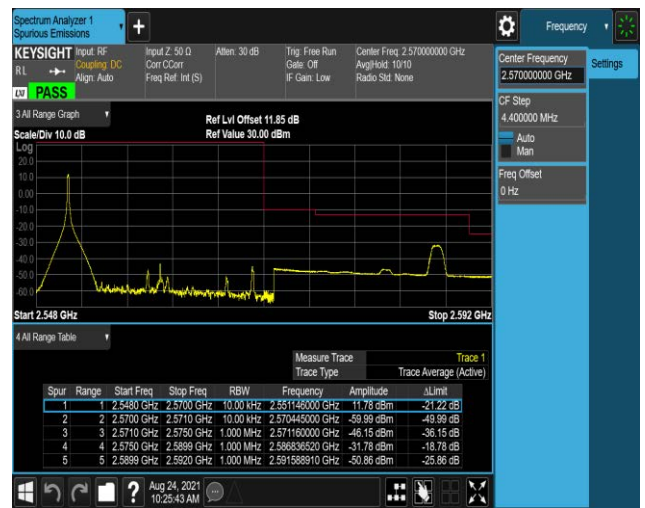
Band7-20MHz-QPSK-20850-1RB#99



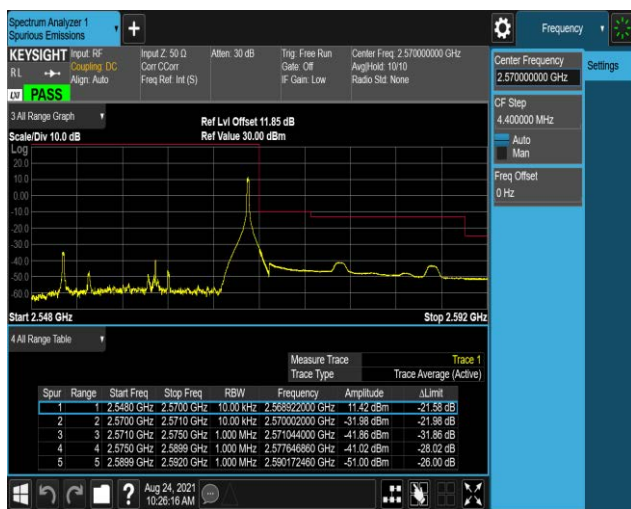
Band7-20MHz-QPSK-20850-100RB#0



Band7-20MHz-QPSK-21350-1RB#0



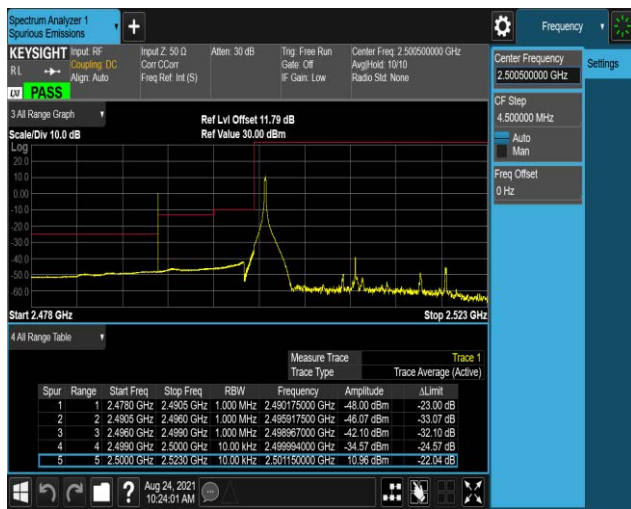
Band7-20MHz-QPSK-21350-1RB#99



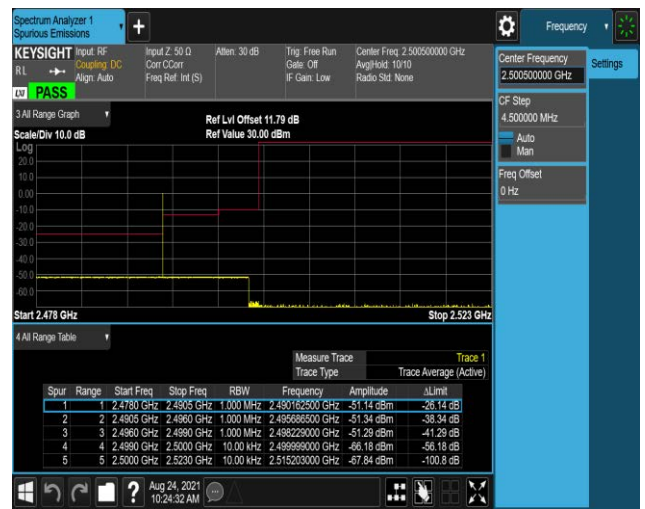
Band7-20MHz-QPSK-21350-100RB#0



Band7-20MHz-16QAM-20850-1RB#0



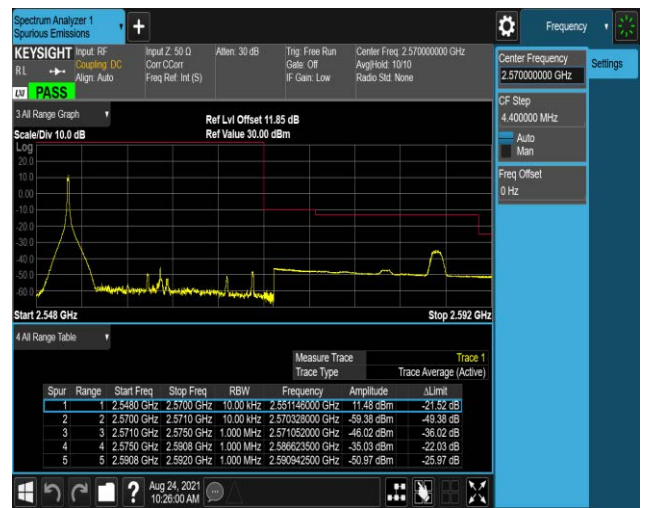
Band7-20MHz-16QAM-20850-1RB#99



Band7-20MHz-16QAM-20850-100RB#0



Band7-20MHz-16QAM-21350-1RB#0



Band7-20MHz-16QAM-21350-1RB#99



Band7-20MHz-16QAM-21350-100RB#0



Appendix E: Conducted Spurious Emission

Test Result (worst case)

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band2	1.4MHz	QPSK	18607	1RB#0	30~1000MHz	-37.6	PASS
Band2	1.4MHz	QPSK	18607	1RB#0	1000~20000MHz	-38.82	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	30~1000MHz	-38.32	PASS
Band2	1.4MHz	QPSK	18900	1RB#0	1000~20000MHz	-37.87	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	30~1000MHz	-36.53	PASS
Band2	1.4MHz	QPSK	19193	1RB#0	1000~20000MHz	-38.69	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	30~1000MHz	-37.34	PASS
Band2	1.4MHz	16QAM	18607	1RB#0	1000~20000MHz	-37.69	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	30~1000MHz	-38.13	PASS
Band2	1.4MHz	16QAM	18900	1RB#0	1000~20000MHz	-38.79	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	30~1000MHz	-38.08	PASS
Band2	1.4MHz	16QAM	19193	1RB#0	1000~20000MHz	-38.92	PASS
Band2	20MHz	QPSK	18700	1RB#0	30~1000MHz	-36.75	PASS
Band2	20MHz	QPSK	18700	1RB#0	1000~20000MHz	-38.6	PASS
Band2	20MHz	QPSK	18900	1RB#0	30~1000MHz	-37.92	PASS
Band2	20MHz	QPSK	18900	1RB#0	1000~20000MHz	-38.22	PASS
Band2	20MHz	QPSK	19100	1RB#0	30~1000MHz	-36.89	PASS
Band2	20MHz	QPSK	19100	1RB#0	1000~20000MHz	-38.3	PASS
Band2	20MHz	16QAM	18700	1RB#0	30~1000MHz	-36.68	PASS
Band2	20MHz	16QAM	18700	1RB#0	1000~20000MHz	-37.83	PASS
Band2	20MHz	16QAM	18900	1RB#0	30~1000MHz	-37.78	PASS
Band2	20MHz	16QAM	18900	1RB#0	1000~20000MHz	-37.84	PASS
Band2	20MHz	16QAM	19100	1RB#0	30~1000MHz	-38.24	PASS
Band2	20MHz	16QAM	19100	1RB#0	1000~20000MHz	-38.39	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	30~1000MHz	-38.66	PASS
Band4	1.4MHz	QPSK	19957	1RB#0	1000~20000MHz	-23.21	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	30~1000MHz	-38.88	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	1000~20000MHz	-27.21	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	30~1000MHz	-37.78	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	1000~20000MHz	-30.04	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	30~1000MHz	-36.68	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	1000~20000MHz	-23.31	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	30~1000MHz	-38.76	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	1000~20000MHz	-27.55	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	30~1000MHz	-36.79	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	1000~20000MHz	-31.42	PASS

Band4	20MHz	QPSK	20050	1RB#0	30~1000MHz	-38.99	PASS
Band4	20MHz	QPSK	20050	1RB#0	1000~20000MHz	-22.94	PASS
Band4	20MHz	QPSK	20175	1RB#0	30~1000MHz	-38.54	PASS
Band4	20MHz	QPSK	20175	1RB#0	1000~20000MHz	-26.48	PASS
Band4	20MHz	QPSK	20300	1RB#0	30~1000MHz	-37.29	PASS
Band4	20MHz	QPSK	20300	1RB#0	1000~20000MHz	-27.02	PASS
Band4	20MHz	16QAM	20050	1RB#0	30~1000MHz	-37.69	PASS
Band4	20MHz	16QAM	20050	1RB#0	1000~20000MHz	-25.57	PASS
Band4	20MHz	16QAM	20175	1RB#0	30~1000MHz	-38.25	PASS
Band4	20MHz	16QAM	20175	1RB#0	1000~20000MHz	-29.06	PASS
Band4	20MHz	16QAM	20300	1RB#0	30~1000MHz	-38.89	PASS
Band4	20MHz	16QAM	20300	1RB#0	1000~20000MHz	-28.98	PASS
Band7	5MHz	QPSK	20775	1RB#0	30~1000MHz	-47.86	PASS
Band7	5MHz	QPSK	20775	1RB#0	1000~27000MHz	-34.96	PASS
Band7	5MHz	QPSK	21100	1RB#0	30~1000MHz	-48.07	PASS
Band7	5MHz	QPSK	21100	1RB#0	1000~27000MHz	-34.3	PASS
Band7	5MHz	QPSK	21425	1RB#0	30~1000MHz	-48.25	PASS
Band7	5MHz	QPSK	21425	1RB#0	1000~27000MHz	-35.49	PASS
Band7	5MHz	16QAM	20775	1RB#0	30~1000MHz	-49.03	PASS
Band7	5MHz	16QAM	20775	1RB#0	1000~27000MHz	-35.12	PASS
Band7	5MHz	16QAM	21100	1RB#0	30~1000MHz	-49.17	PASS
Band7	5MHz	16QAM	21100	1RB#0	1000~27000MHz	-34.44	PASS
Band7	5MHz	16QAM	21425	1RB#0	30~1000MHz	-47.63	PASS
Band7	5MHz	16QAM	21425	1RB#0	1000~27000MHz	-35.2	PASS
Band7	20MHz	QPSK	20850	1RB#0	30~1000MHz	-48.67	PASS
Band7	20MHz	QPSK	20850	1RB#0	1000~27000MHz	-34.9	PASS
Band7	20MHz	QPSK	21100	1RB#0	30~1000MHz	-46.94	PASS
Band7	20MHz	QPSK	21100	1RB#0	1000~27000MHz	-35.99	PASS
Band7	20MHz	QPSK	21350	1RB#0	30~1000MHz	-47.62	PASS
Band7	20MHz	QPSK	21350	1RB#0	1000~27000MHz	-35.7	PASS
Band7	20MHz	16QAM	20850	1RB#0	30~1000MHz	-46.97	PASS
Band7	20MHz	16QAM	20850	1RB#0	1000~27000MHz	-36.4	PASS
Band7	20MHz	16QAM	21100	1RB#0	30~1000MHz	-48.49	PASS
Band7	20MHz	16QAM	21100	1RB#0	1000~27000MHz	-35.72	PASS
Band7	20MHz	16QAM	21350	1RB#0	30~1000MHz	-47.44	PASS
Band7	20MHz	16QAM	21350	1RB#0	1000~27000MHz	-34.43	PASS

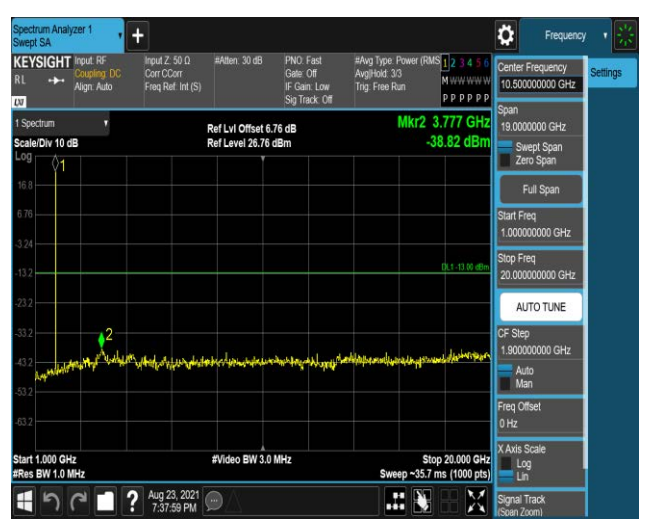
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

Band2-1.4MHz-QPSK-18607:30~1000MHz



Band2-1.4MHz-QPSK-18607:1000~20000MHz



Band2-1.4MHz-QPSK-18900:30~1000MHz



Band2-1.4MHz-QPSK-18900:1000~20000MHz



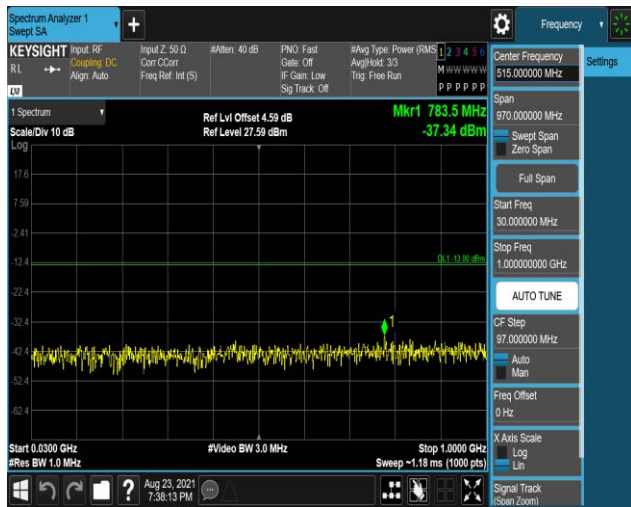
Band2-1.4MHz-QPSK-19193:30~1000MHz



Band2-1.4MHz-QPSK-19193:1000~20000MHz



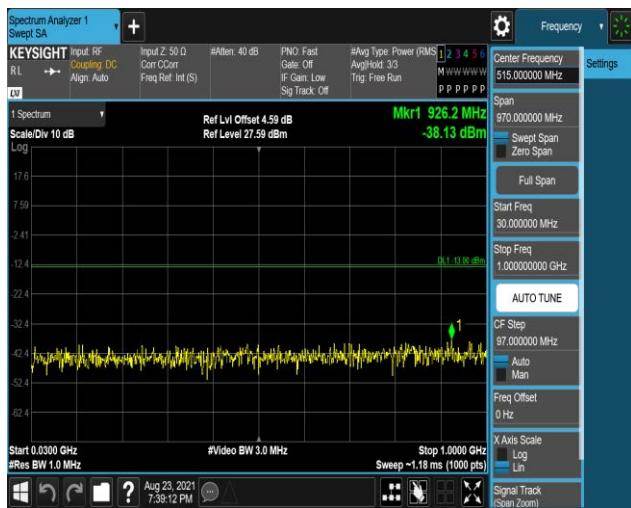
Band2-1.4MHz-16QAM-18607:30~1000MHz



Band2-1.4MHz-16QAM-18607:1000~20000MHz



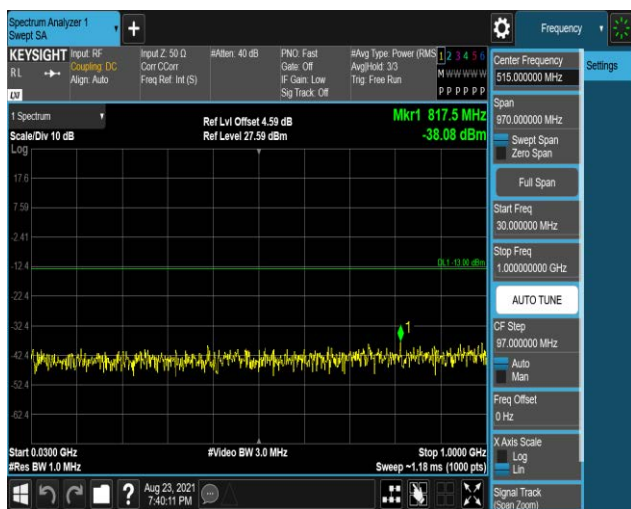
Band2-1.4MHz-16QAM-18900:30~1000MHz



Band2-1.4MHz-16QAM-18900:1000~20000MHz



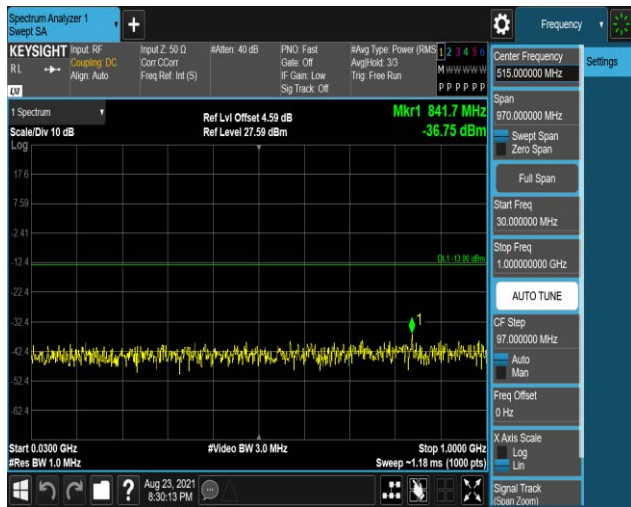
Band2-1.4MHz-16QAM-19193:30~1000MHz



Band2-1.4MHz-16QAM-19193:1000~20000MHz



Band2-20MHz-QPSK-18700:30~1000MHz



Band2-20MHz-QPSK-18700:1000~20000MHz



Band2-20MHz-QPSK-18900:30~1000MHz



Band2-20MHz-QPSK-18900:1000~20000MHz



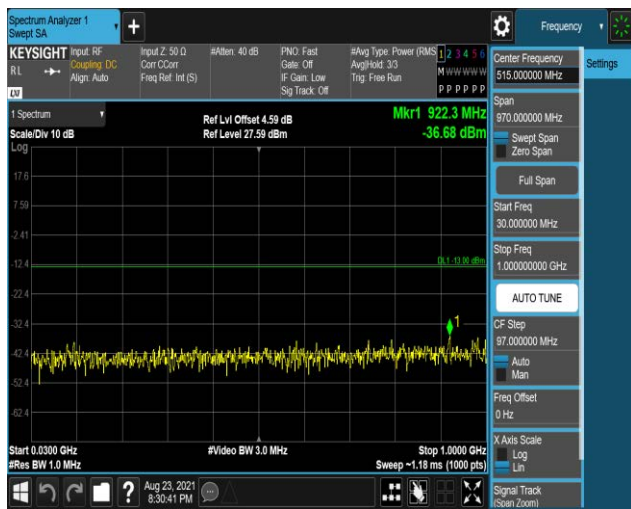
Band2-20MHz-QPSK-19100:30~1000MHz



Band2-20MHz-QPSK-19100:1000~20000MHz



Band2-20MHz-16QAM-18700:30~1000MHz



Band2-20MHz-16QAM-18700:1000~20000MHz



Band2-20MHz-16QAM-18900:30~1000MHz



Band2-20MHz-16QAM-18900:1000~20000MHz



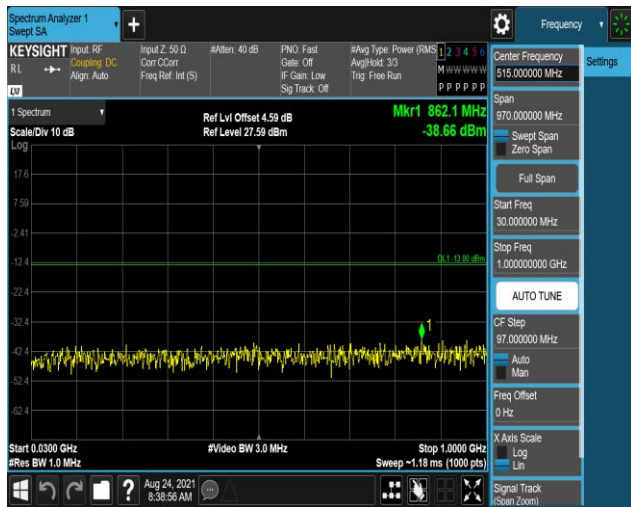
Band2-20MHz-16QAM-19100:30~1000MHz



Band2-20MHz-16QAM-19100:1000~20000MHz



Band4-1.4MHz-QPSK-19957:30~1000MHz



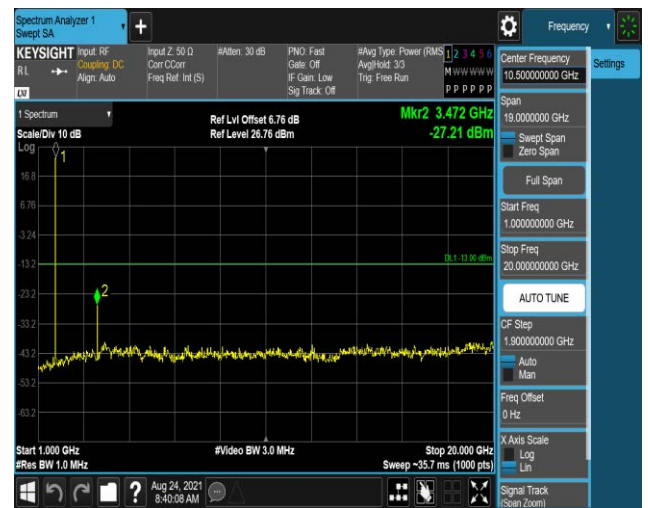
Band4-1.4MHz-QPSK-19957:1000~20000MHz



Band4-1.4MHz-QPSK-20175:30~1000MHz



Band4-1.4MHz-QPSK-20175:1000~20000MHz



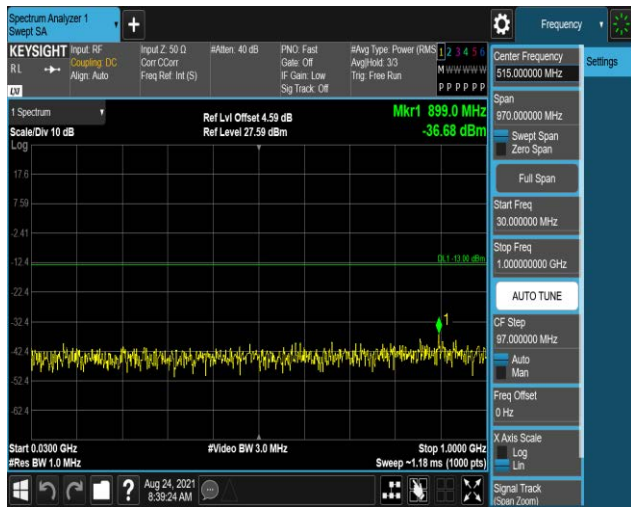
Band4-1.4MHz-QPSK-20393:30~1000MHz



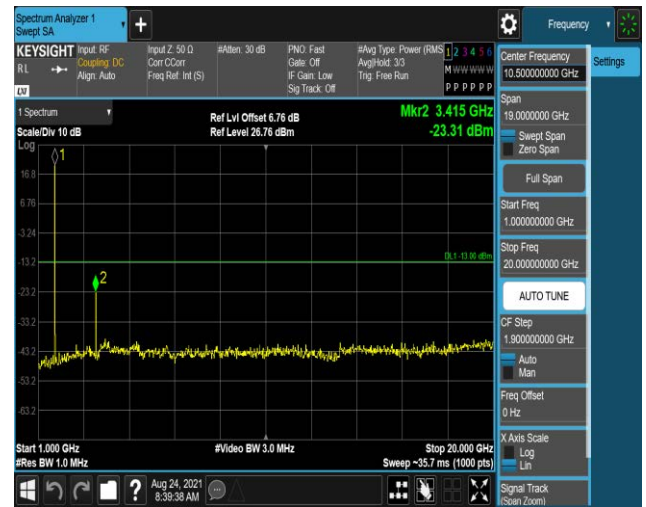
Band4-1.4MHz-QPSK-20393:1000~20000MHz



Band4-1.4MHz-16QAM-19957:30~1000MHz



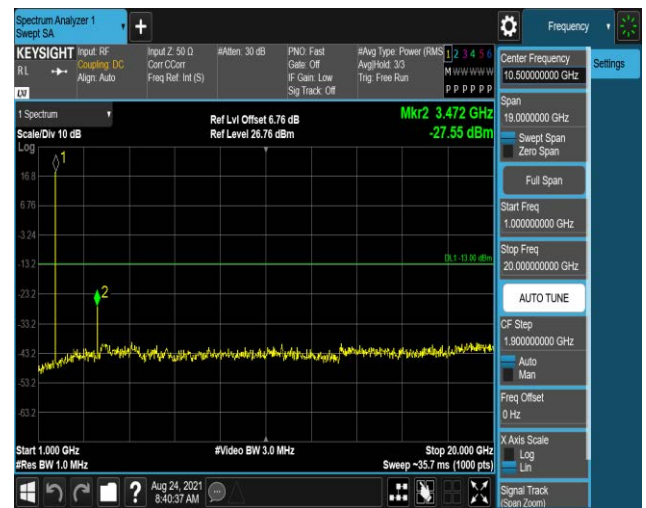
Band4-1.4MHz-16QAM-19957:1000~20000MHz



Band4-1.4MHz-16QAM-20175:30~1000MHz



Band4-1.4MHz-16QAM-20175:1000~20000MHz



Band4-1.4MHz-16QAM-20393:30~1000MHz



Band4-1.4MHz-16QAM-20393:1000~20000MHz



Band4-20MHz-QPSK-20050:30~1000MHz



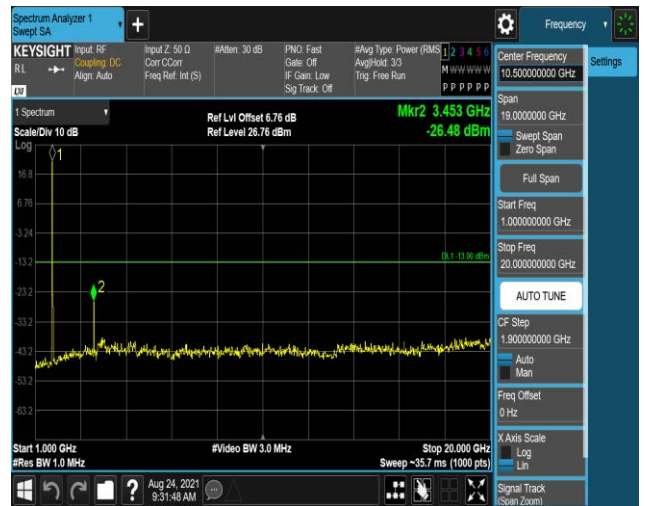
Band4-20MHz-QPSK-20050:1000~20000MHz



Band4-20MHz-QPSK-20175:30~1000MHz



Band4-20MHz-QPSK-20175:1000~20000MHz



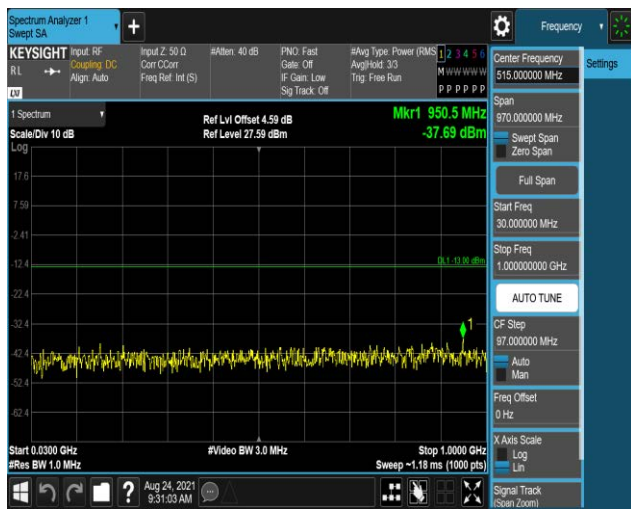
Band4-20MHz-QPSK-20300:30~1000MHz



Band4-20MHz-QPSK-20300:1000~20000MHz



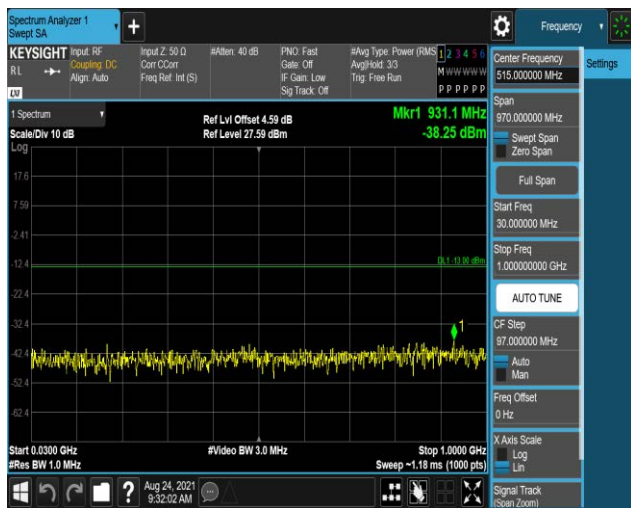
Band4-20MHz-16QAM-20050:30~1000MHz



Band4-20MHz-16QAM-20050:1000~20000MHz



Band4-20MHz-16QAM-20175:30~1000MHz



Band4-20MHz-16QAM-20175:1000~20000MHz



Band4-20MHz-16QAM-20300:30~1000MHz



Band4-20MHz-16QAM-20300:1000~20000MHz



Band7-5MHz-QPSK-20775:30~1000MHz



Band7-5MHz-QPSK-20775:1000~27000MHz



Band7-5MHz-QPSK-21100:30~1000MHz



Band7-5MHz-QPSK-21100:1000~27000MHz



Band7-5MHz-QPSK-21425:30~1000MHz



Band7-5MHz-QPSK-21425:1000~27000MHz



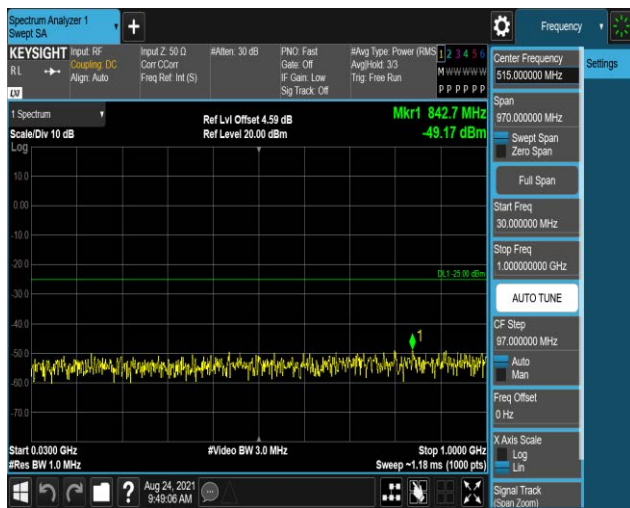
Band7-5MHz-16QAM-20775:30~1000MHz



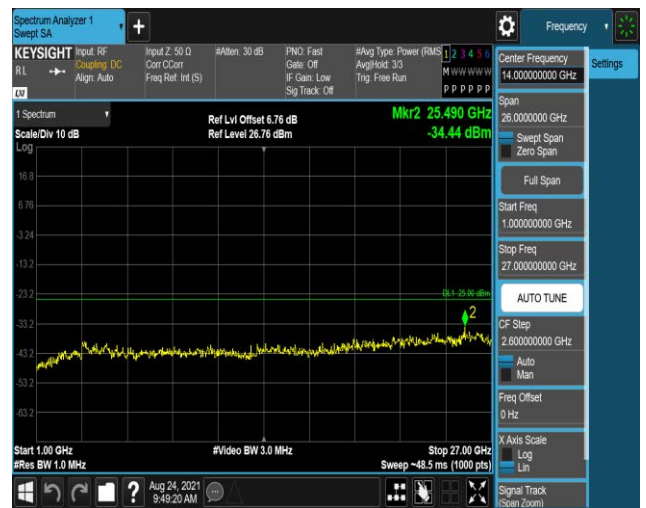
Band7-5MHz-16QAM-20775:1000~27000MHz



Band7-5MHz-16QAM-21100:30~1000MHz



Band7-5MHz-16QAM-21100:1000~27000MHz



Band7-5MHz-16QAM-21425:30~1000MHz



Band7-5MHz-16QAM-21425:1000~27000MHz



Band7-20MHz-QPSK-20850:30~1000MHz



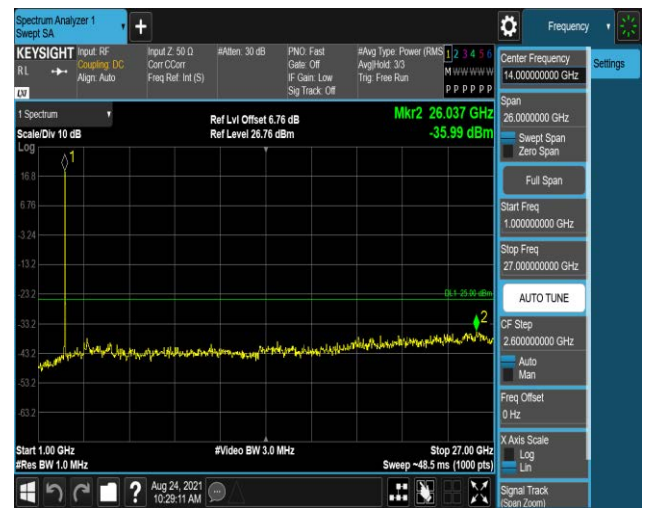
Band7-20MHz-QPSK-20850:1000~27000MHz



Band7-20MHz-QPSK-21100:30~1000MHz



Band7-20MHz-QPSK-21100:1000~27000MHz



Band7-20MHz-QPSK-21350:30~1000MHz



Band7-20MHz-QPSK-21350:1000~27000MHz



Band7-20MHz-16QAM-20850:30~1000MHz



Band7-20MHz-16QAM-20850:1000~27000MHz



Band7-20MHz-16QAM-21100:30~1000MHz



Band7-20MHz-16QAM-21100:1000~27000MHz



Band7-20MHz-16QAM-21350:30~1000MHz



Band7-20MHz-16QAM-21350:1000~27000MHz



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					
3.80	-30	-11.90	-0.004694	Within authorized band for Band 2	Pass
	-20	-14.49	-0.005716		
	-10	-13.55	-0.005345		
	0	-4.86	-0.001917		
	10	-19.21	-0.007578		
	20	-16.79	-0.006623		
	30	-16.81	-0.006631		
	40	-9.34	-0.003684		
	50	-16.24	-0.006406		
16QAM					
3.80	-30	-22.30	-0.008797	Within authorized band for Band 2	Pass
	-20	-16.44	-0.006485		
	-10	-17.88	-0.007053		
	0	-19.11	-0.007538		
	10	-18.21	-0.007183		
	20	-16.65	-0.006568		
	30	-21.69	-0.008556		
	40	-14.26	-0.005625		
	50	-17.12	-0.006753		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-6.12	-0.003255	Within authorized band for Band 2	Pass
	3.80	-13.07	-0.006952		
	4.35	-6.87	-0.003654		
16QAM					
25	3.50	-9.58	-0.005096	Within authorized band for Band 2	Pass
	3.85	-10.43	-0.005548		
	4.35	-4.88	-0.002596		

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					
3.80	-30	-15.95	-0.008484	Within authorized band for Band 4	Pass
	-20	-12.89	-0.006856		
	-10	-14.02	-0.007457		
	0	-15.54	-0.008266		
	10	-12.70	-0.006755		
	20	-18.22	-0.009691		
	30	-11.03	-0.005867		
	40	-12.56	-0.006681		
	50	-9.13	-0.004856		
16QAM					
3.80	-30	-12.19	-0.006484	Within authorized band for Band 4	Pass
	-20	-4.76	-0.002532		
	-10	-11.12	-0.005915		
	0	-14.98	-0.007968		
	10	-14.93	-0.007941		
	20	-14.10	-0.007500		
	30	-12.43	-0.006612		
	40	-17.85	-0.009495		
	50	-11.54	-0.006138		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-8.04	-0.004641	Within authorized band for Band 4	Pass
	3.80	-15.39	-0.008883		
	4.35	-5.24	-0.003025		
16QAM					
25	3.50	-13.95	-0.008052	Within authorized band for Band 4	Pass
	3.80	-10.43	-0.006020		
	4.35	-10.17	-0.005870		

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					
3.80	-30	5.41	0.003123	Within authorized band for Band 7	Pass
	-20	-7.50	-0.004329		
	-10	-6.84	-0.003948		
	0	-4.95	-0.002857		
	10	7.32	0.004225		
	20	-4.23	-0.002442		
	30	-8.67	-0.005004		
	40	7.60	0.004387		
	50	-9.86	-0.005691		
16QAM					
3.80	-30	-12.32	-0.007111	Within authorized band for Band 7	Pass
	-20	-6.81	-0.003931		
	-10	-6.29	-0.003631		
	0	-17.04	-0.009835		
	10	-11.42	-0.006592		
	20	-12.59	-0.007267		
	30	3.73	0.002153		
	40	-10.49	-0.006055		
	50	-17.18	-0.009916		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-21.41	-0.008446	Within authorized band for Band 7	Pass
	3.80	-23.85	-0.009408		
	4.35	-20.91	-0.008249		
16QAM					
25	3.50	-5.64	-0.002225	Within authorized band for Band 7	Pass
	3.80	-19.11	-0.007538		
	4.35	-19.81	-0.007815		

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
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

