

FCC LTE Band Test Data

FCC ID : 2BFI8-TIQMINIM5

Company: : Jinan Ant Zhonglian Information Technology Co., Ltd.

EUT : TIQ mini M5

Model Number : TIQ mini M5

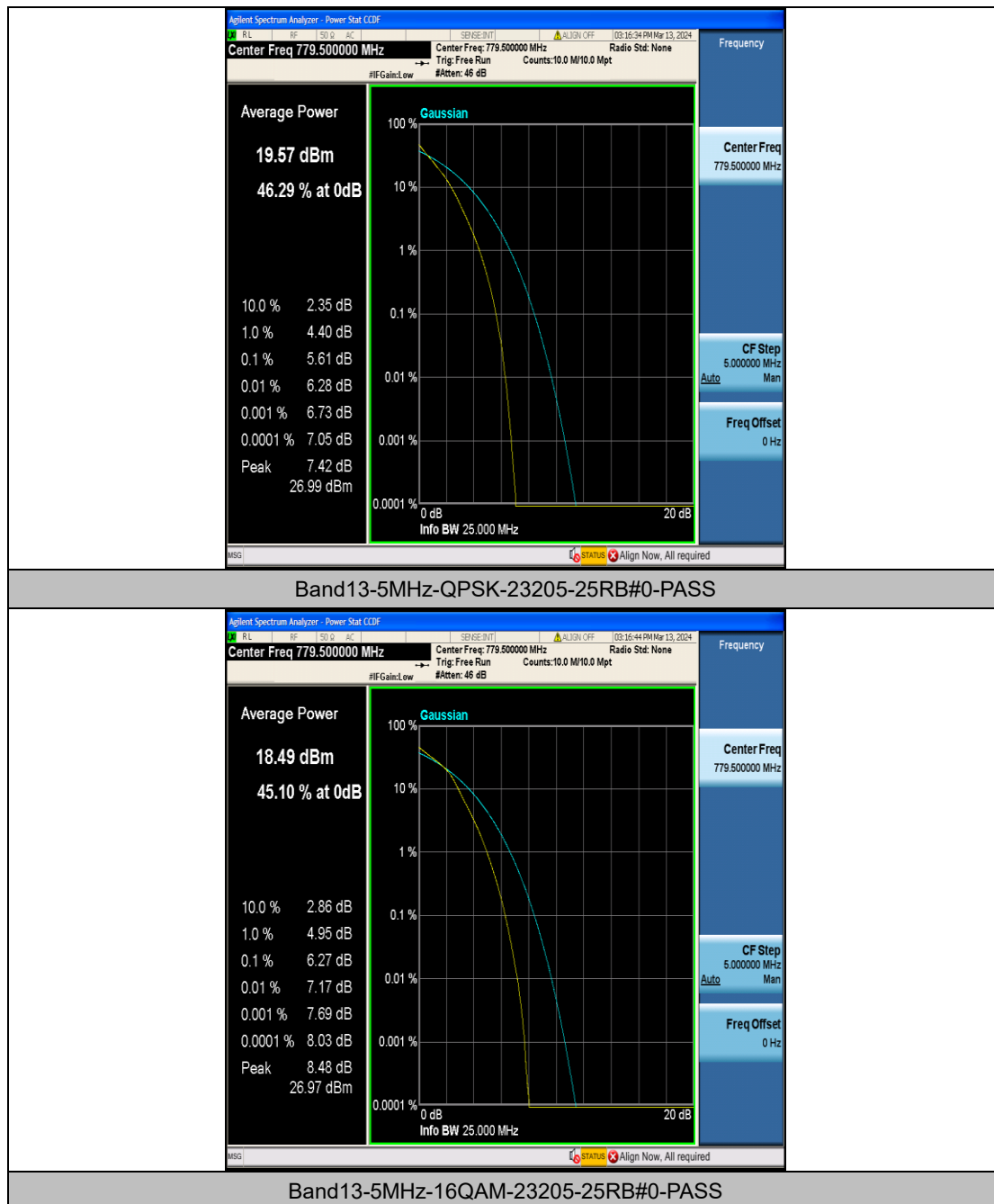
Reviewed By : Eric Wang

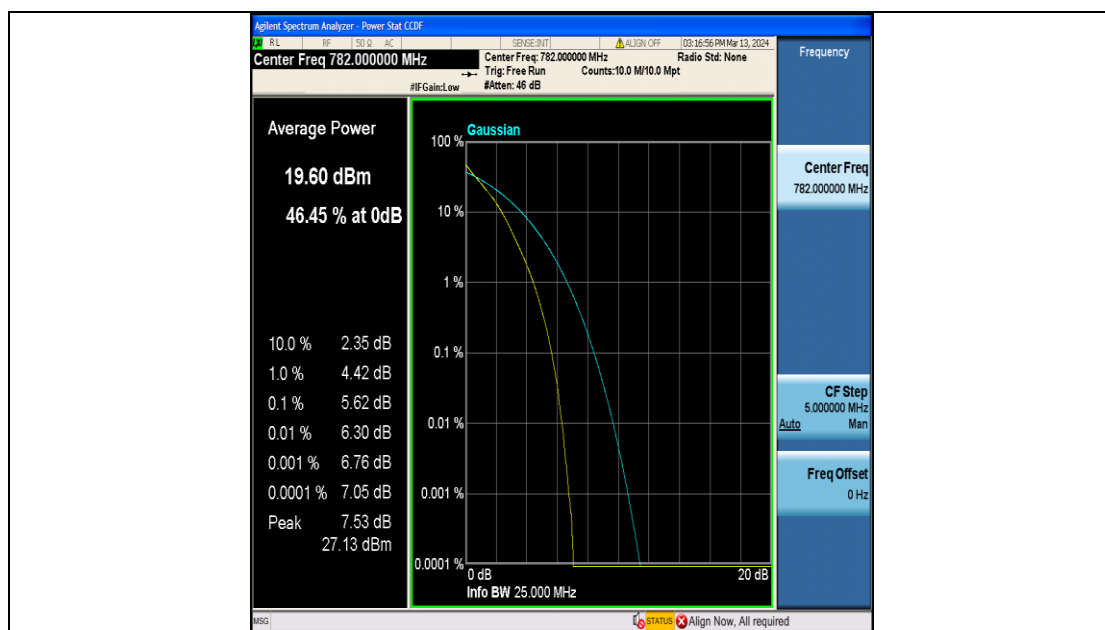
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

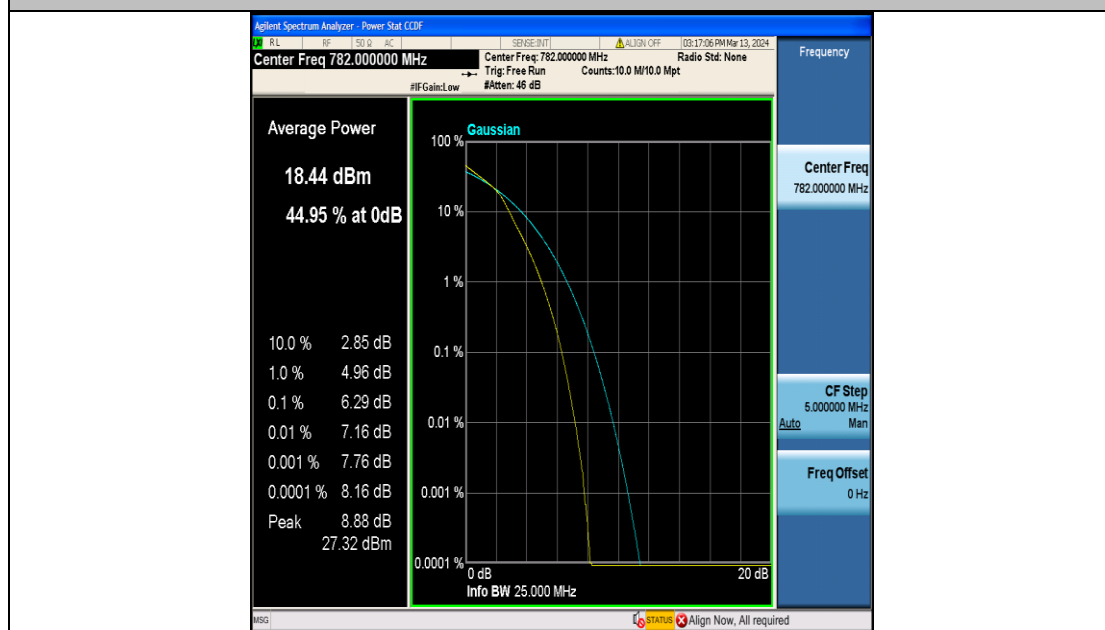
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	5.61	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.27	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.62	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.29	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.67	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.33	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.59	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.30	13	PASS

Test Graphs

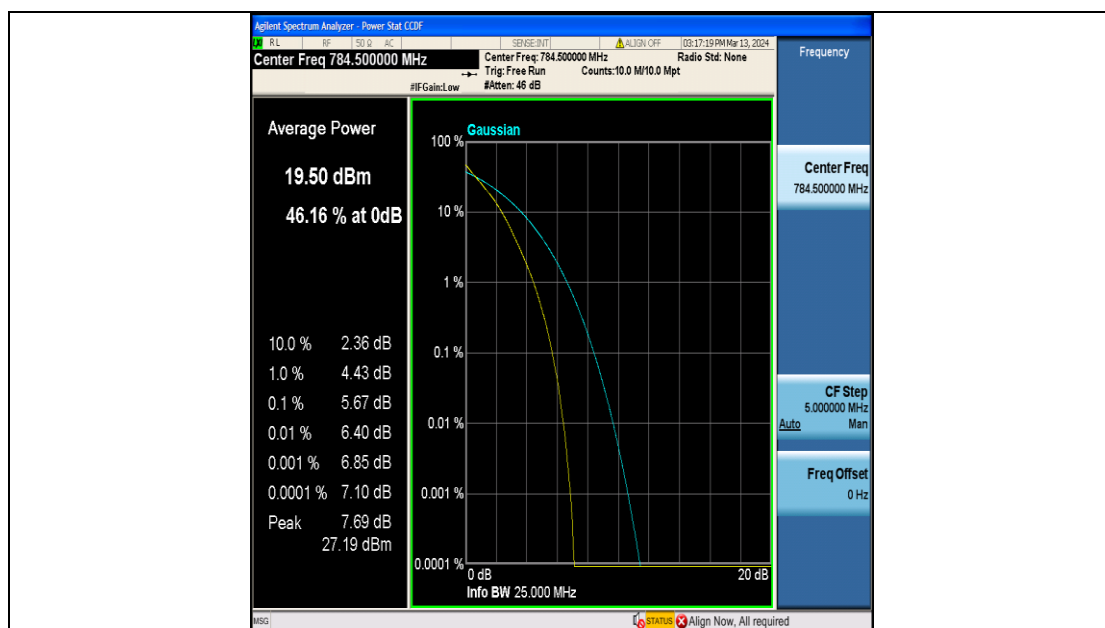




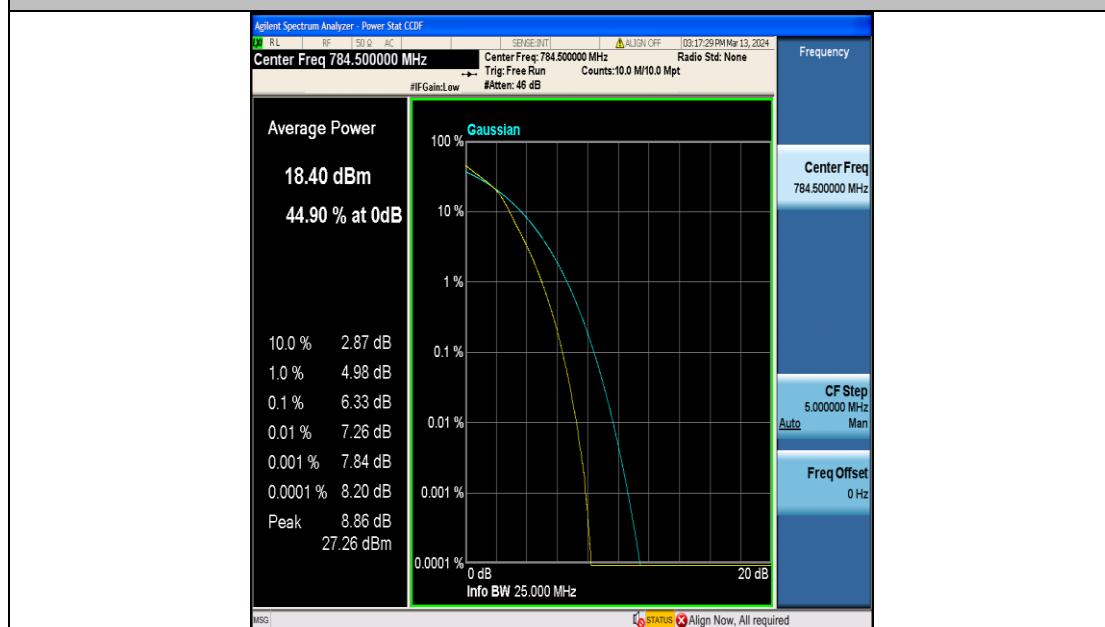
Band13-5MHz-QPSK-23230-25RB#0-PASS



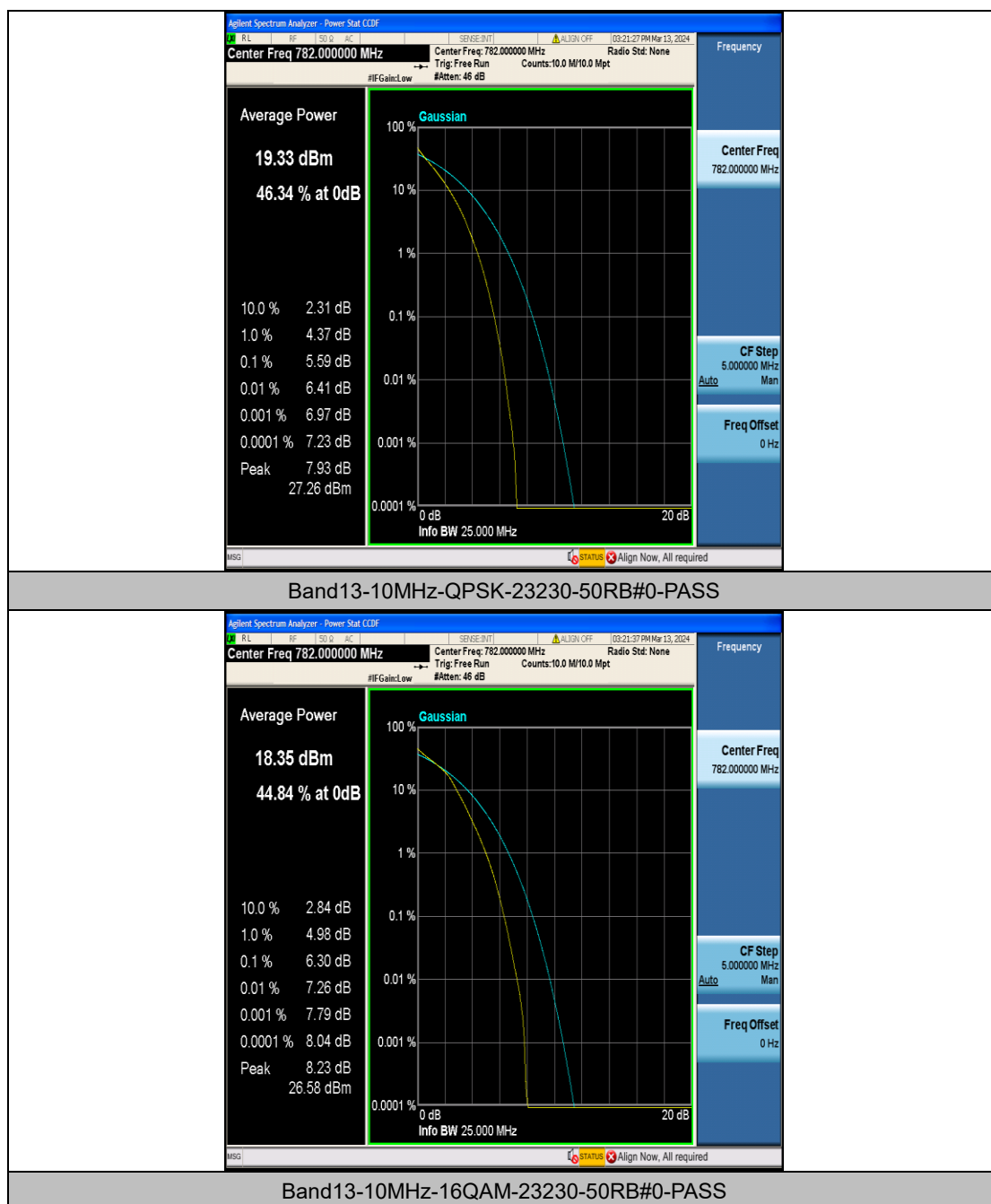
Band13-5MHz-16QAM-23230-25RB#0-PASS



Band13-5MHz-QPSK-23255-25RB#0-PASS



Band13-5MHz-16QAM-23255-25RB#0-PASS

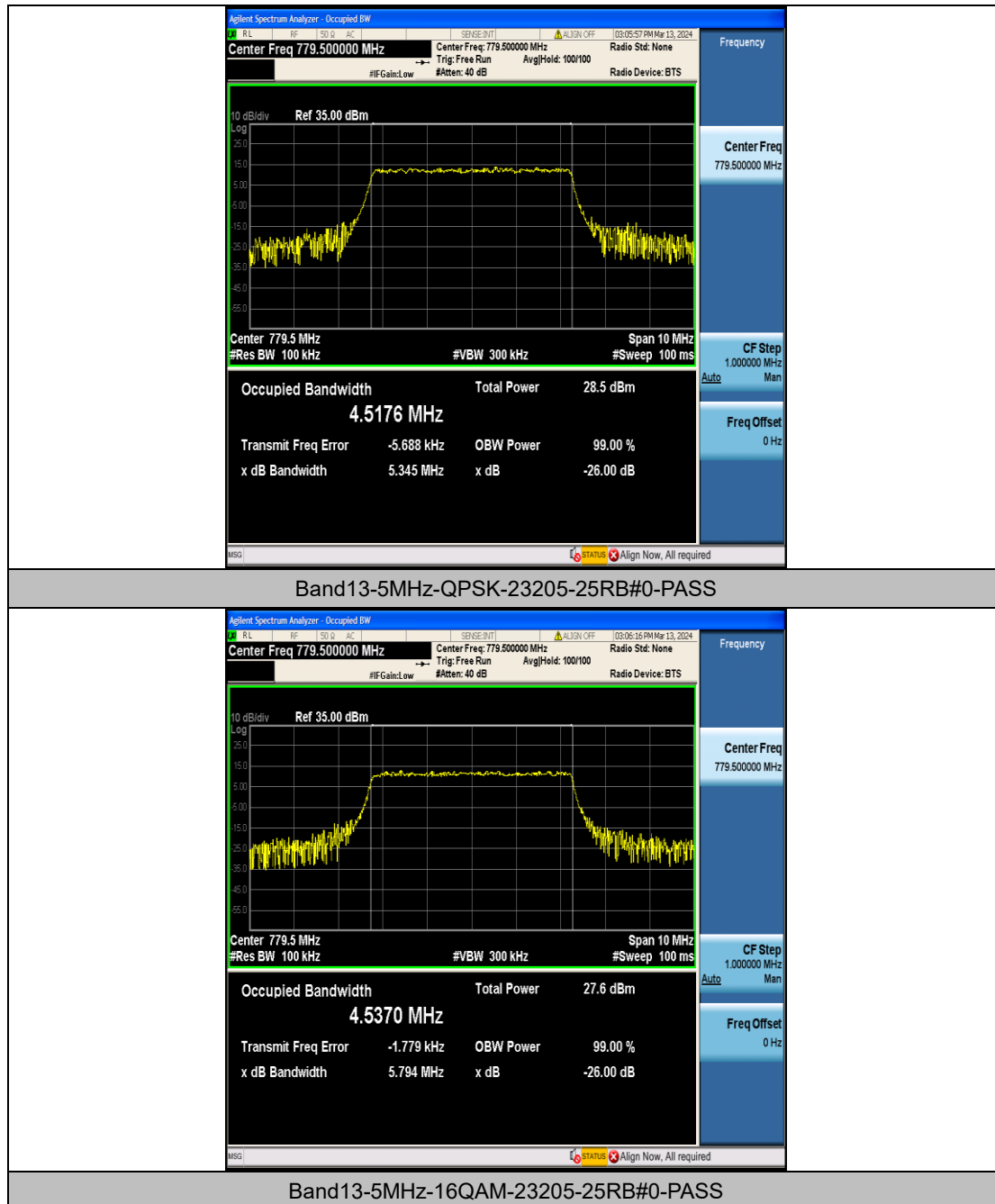


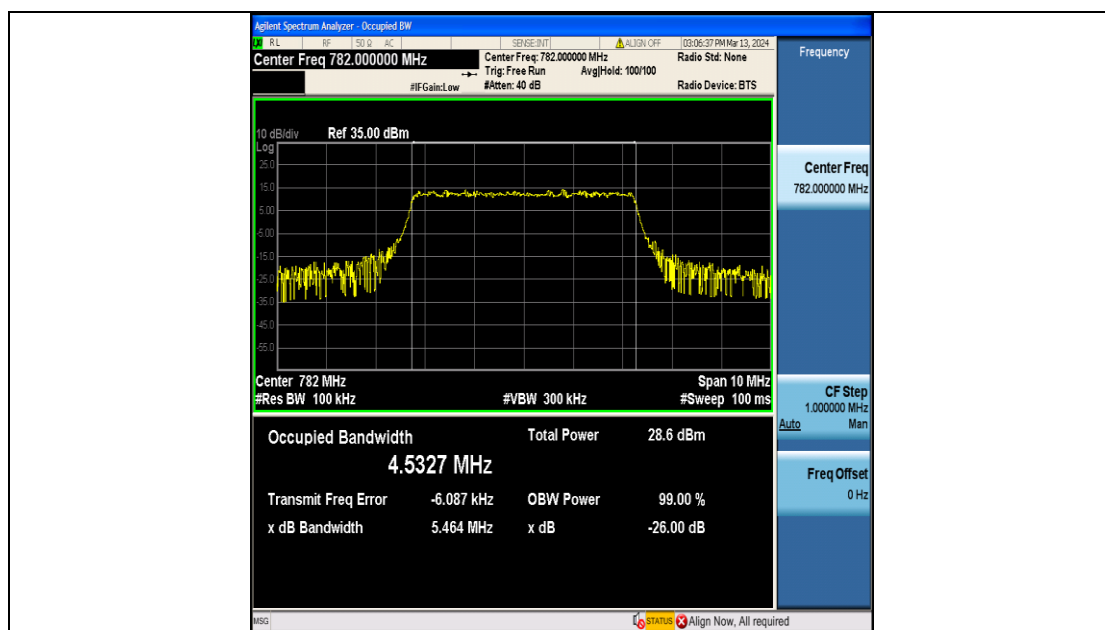
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

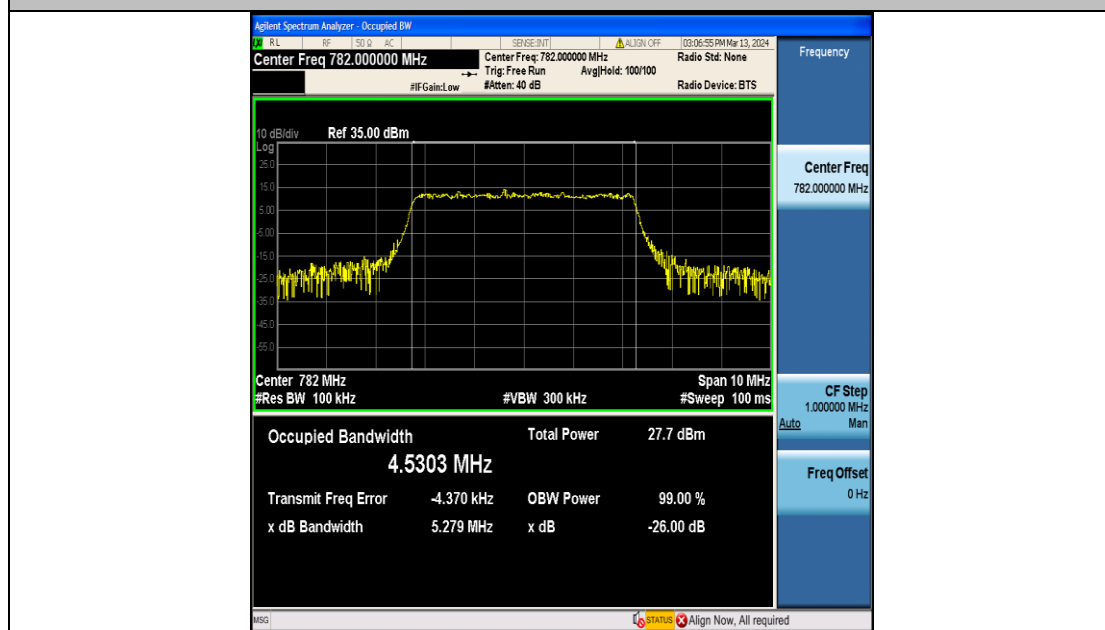
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5176	5.345	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5370	5.794	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5327	5.464	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5303	5.279	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5175	5.205	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5133	5.103	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0157	10.67	PASS
Band13	10MHz	16QAM	23230	50RB#0	9.0130	10.64	PASS

Test Graphs

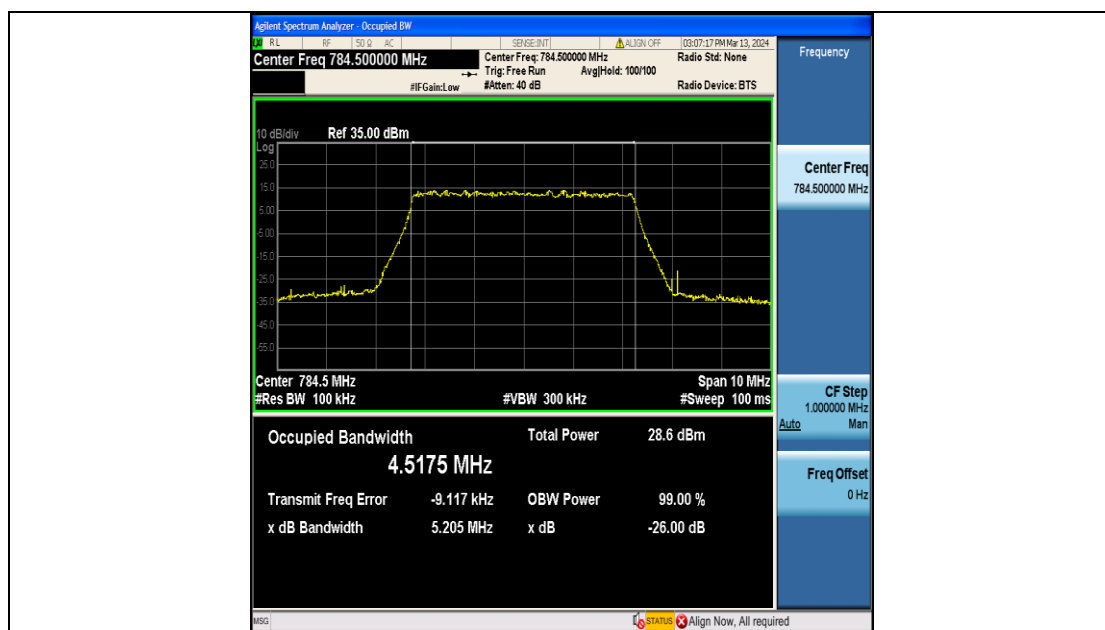




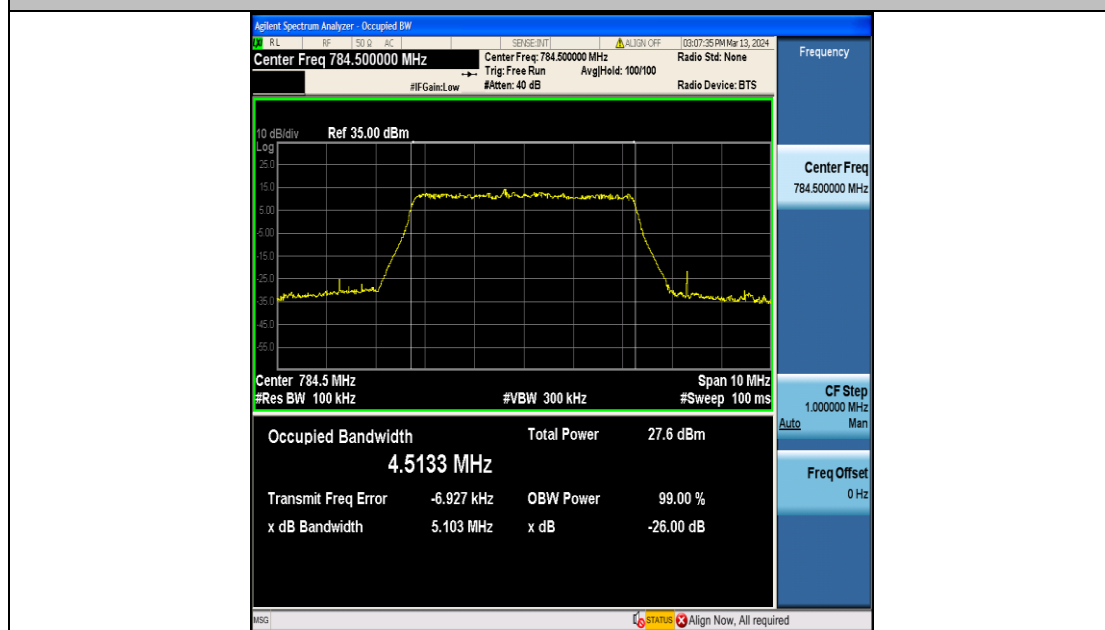
Band13-5MHz-QPSK-23230-25RB#0-PASS



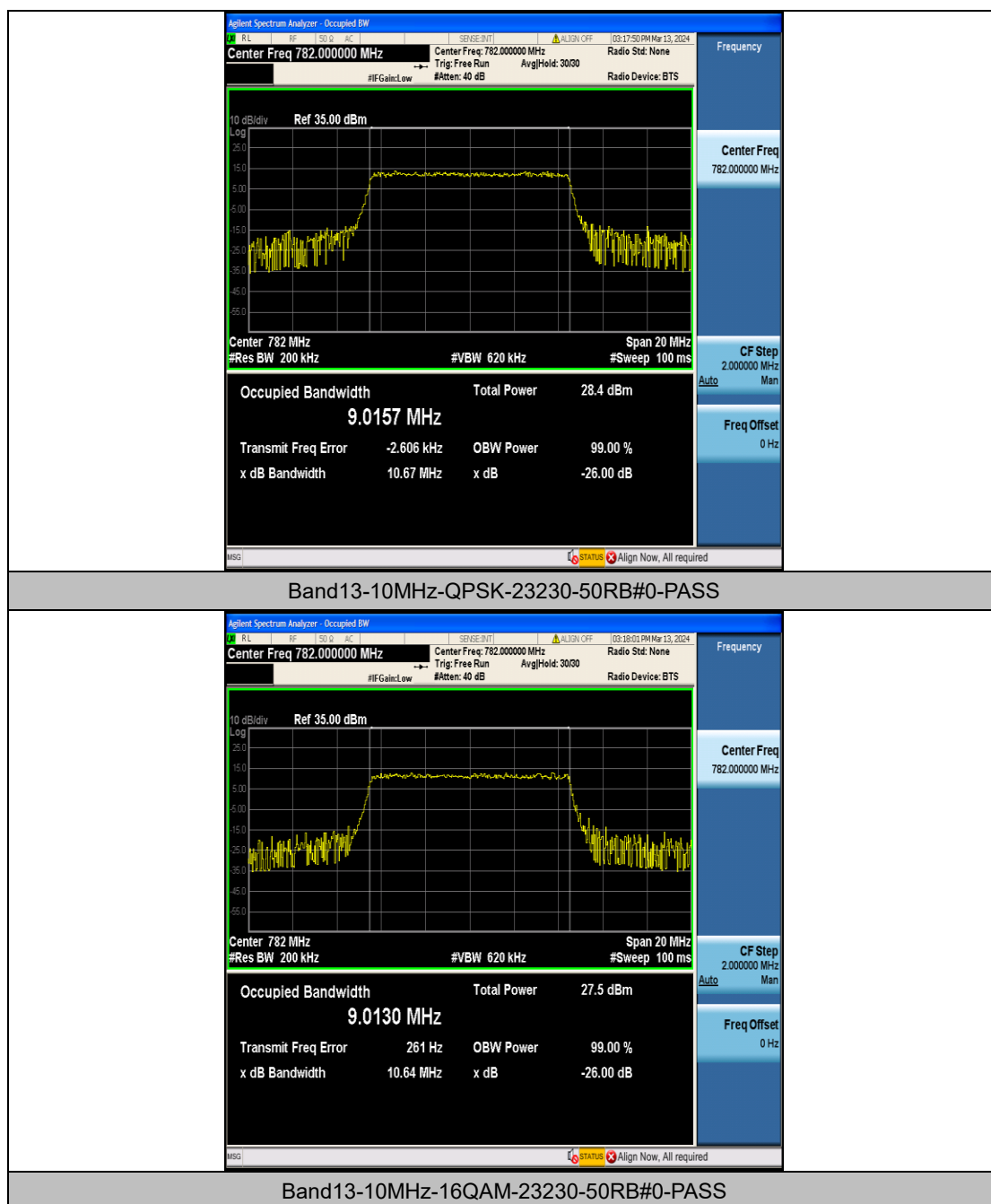
Band13-5MHz-16QAM-23230-25RB#0-PASS



Band13-5MHz-QPSK-23255-25RB#0-PASS



Band13-5MHz-16QAM-23255-25RB#0-PASS

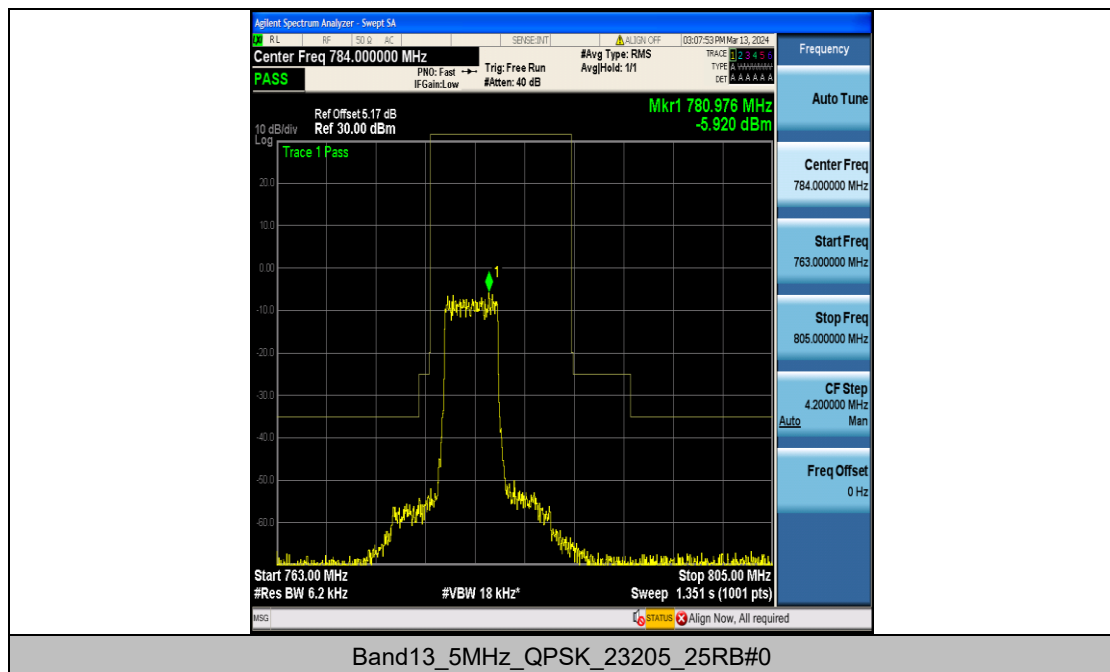


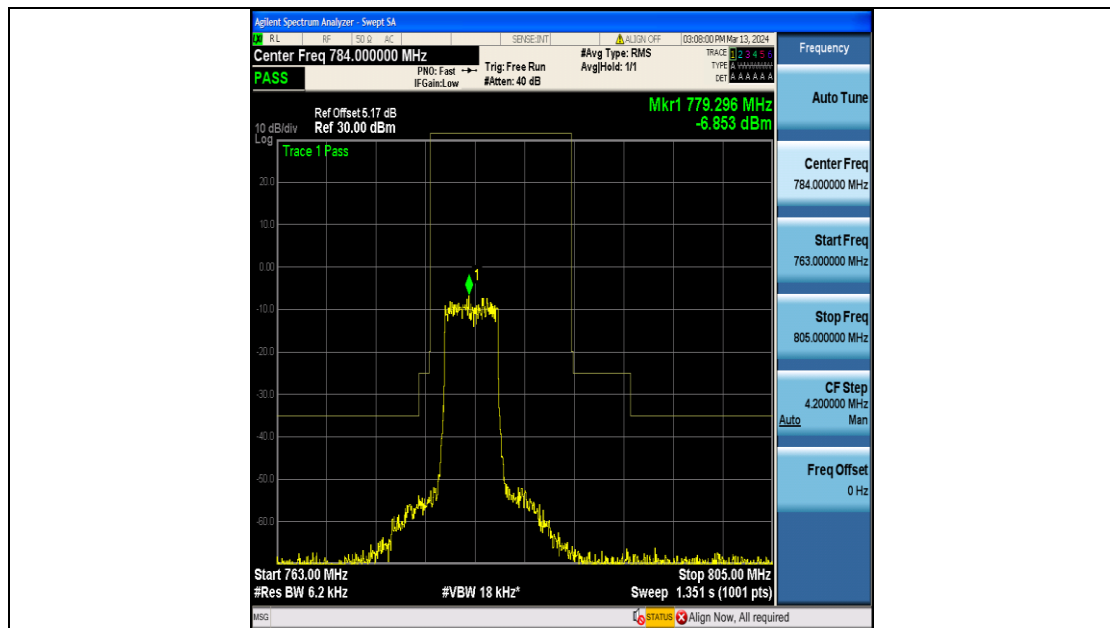
Appendix D: Band Edge

Test Result

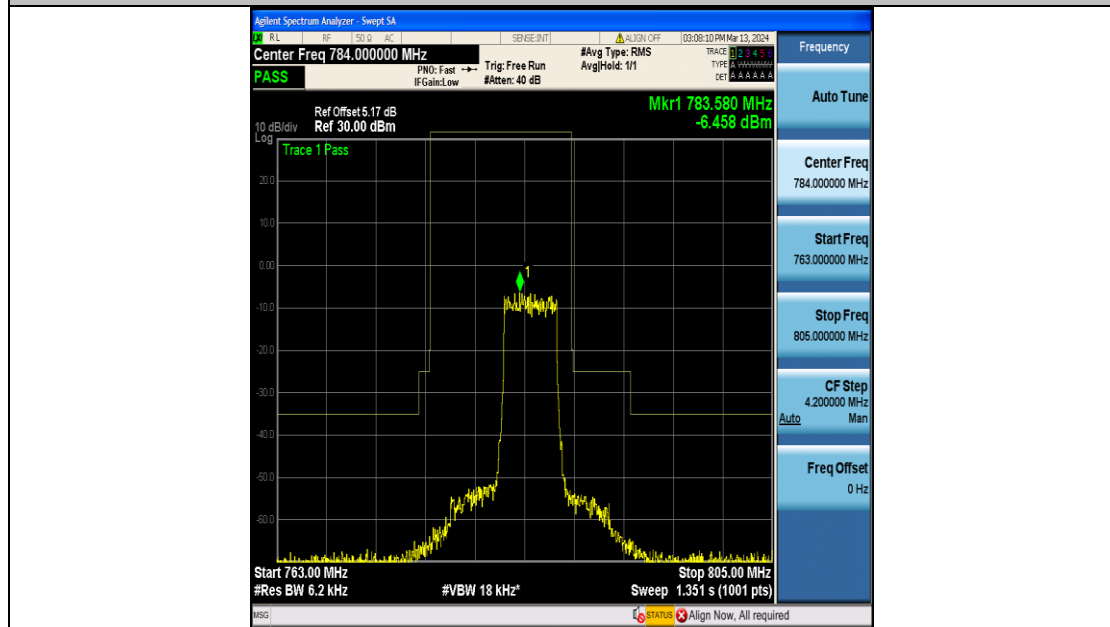
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-55.62	PASS
Band13	5MHz	16QAM	23205	25RB#0	-55.87	PASS
Band13	5MHz	QPSK	23255	25RB#0	-53.83	PASS
Band13	5MHz	16QAM	23255	25RB#0	-53.20	PASS
Band13	10MHz	QPSK	23230	50RB#0	-54.19	PASS
Band13	10MHz	16QAM	23230	50RB#0	-54.14	PASS

Test Graphs

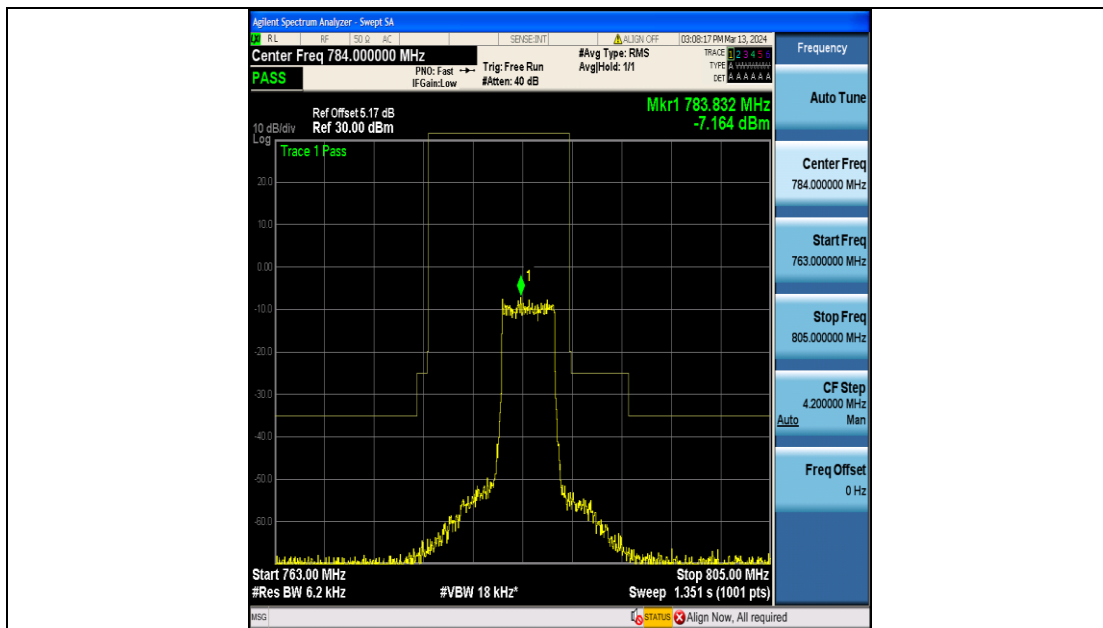




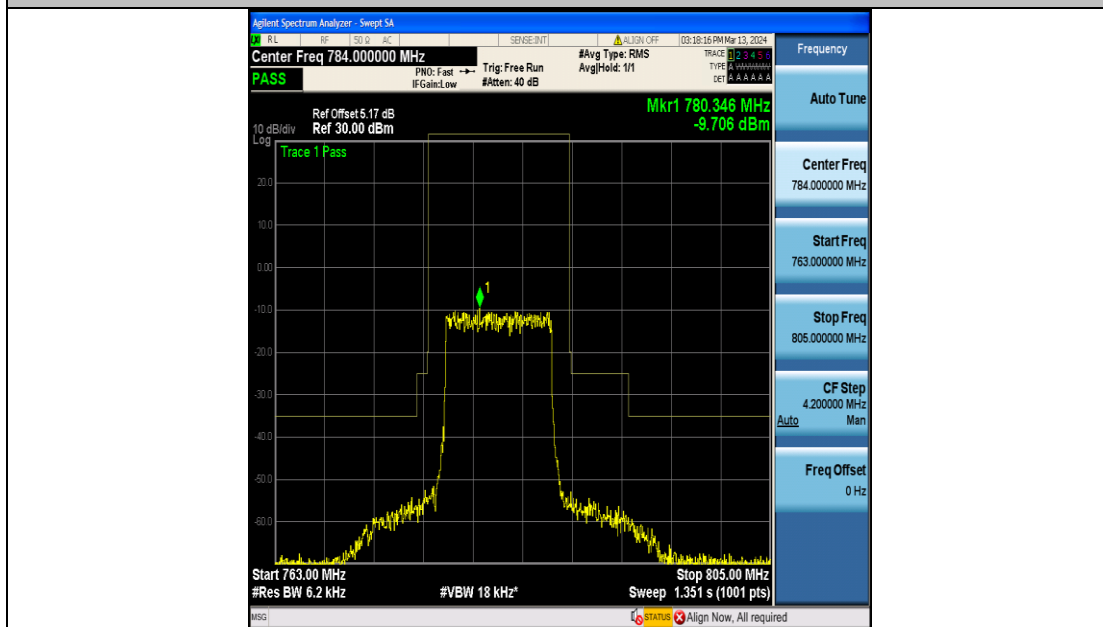
Band13_5MHz_16QAM_23205_25RB#0



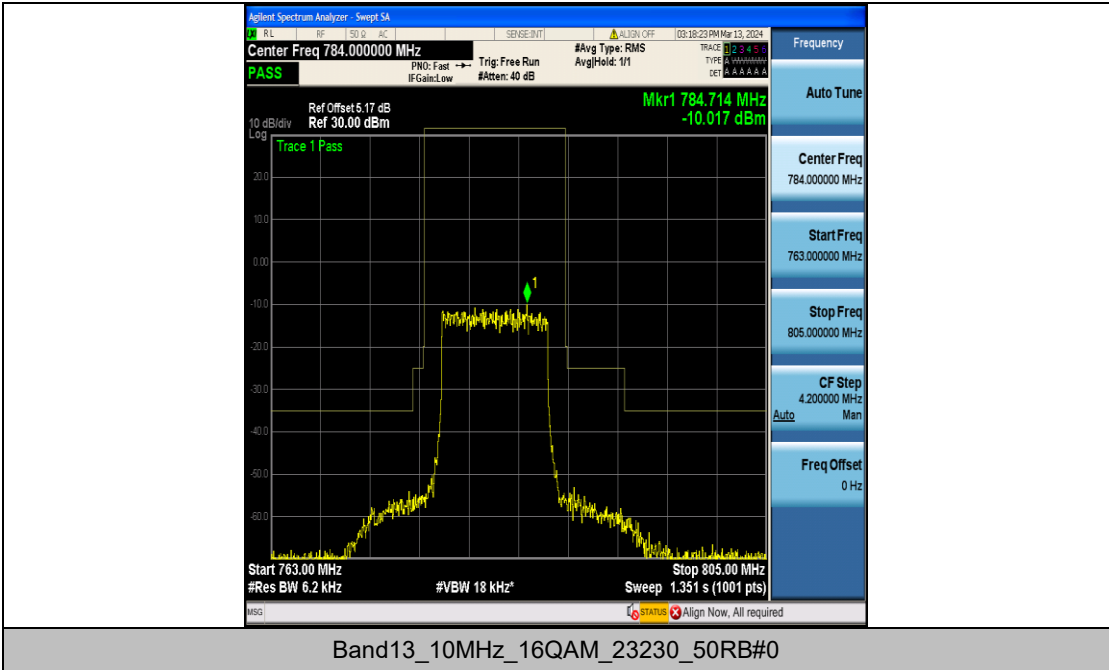
Band13_5MHz_QPSK_23255_25RB#0



Band13_5MHz_16QAM_23255_25RB#0



Band13_10MHz_QPSK_23230_50RB#0



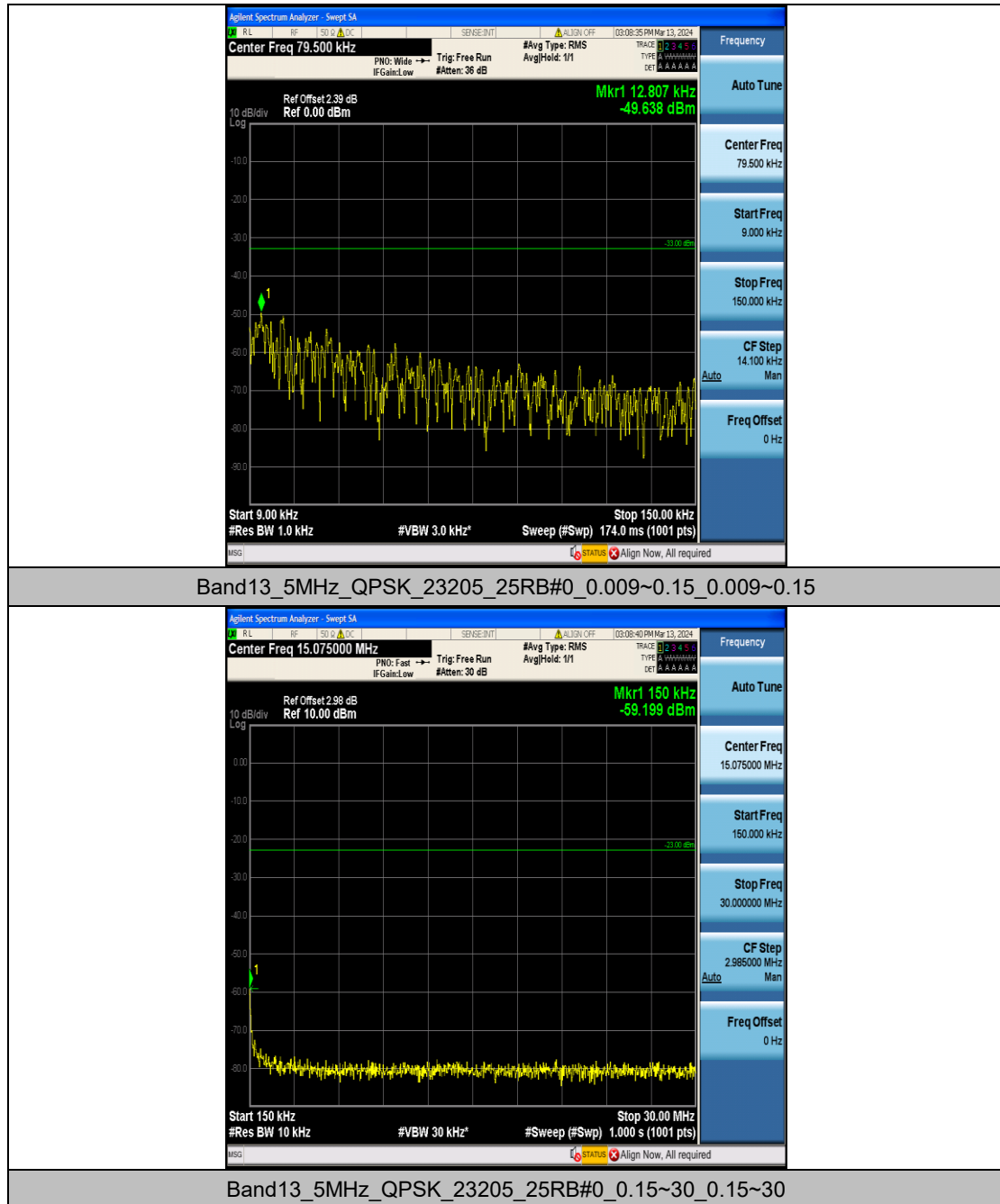
Appendix E: Conducted Spurious Emission

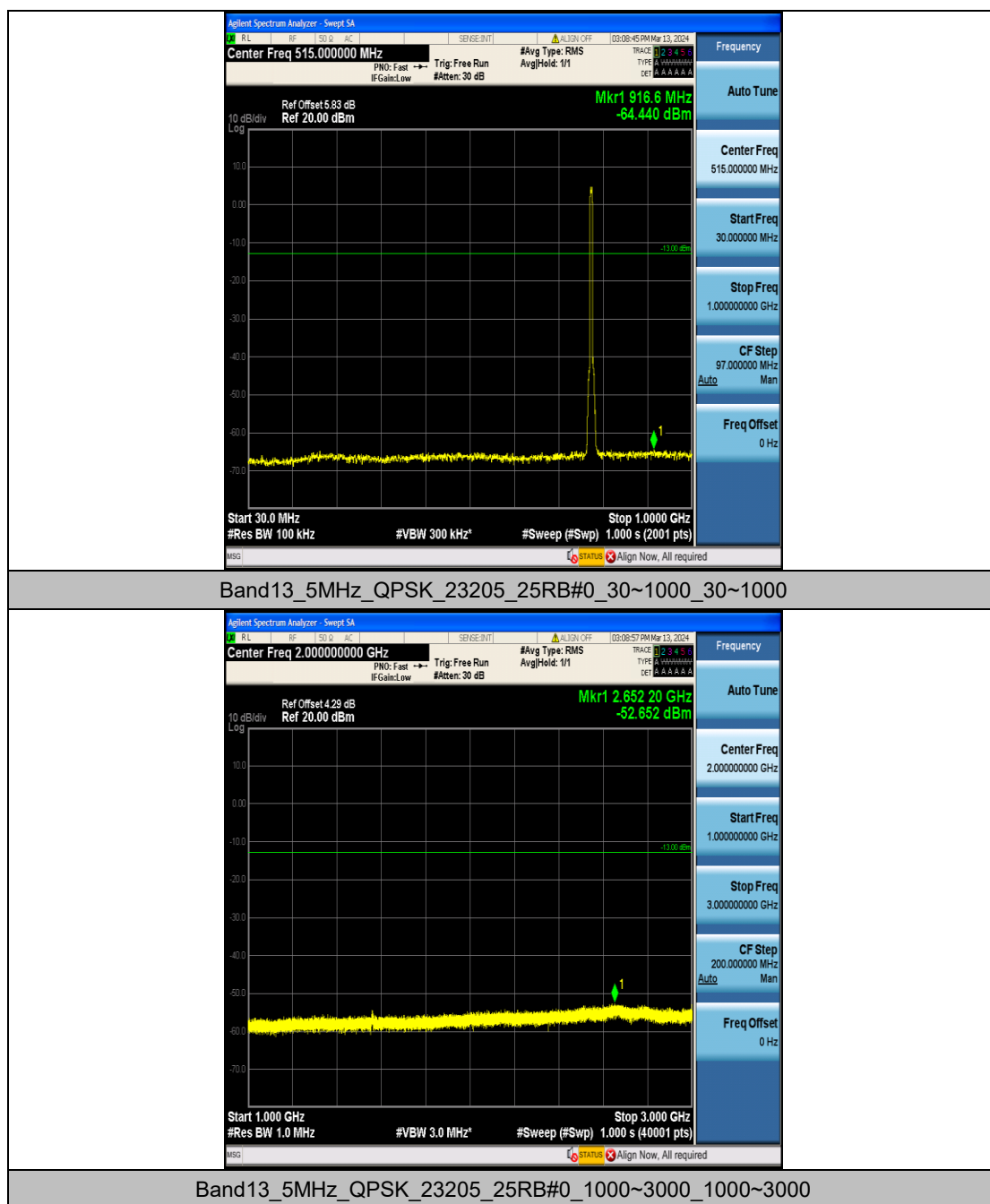
Test Result

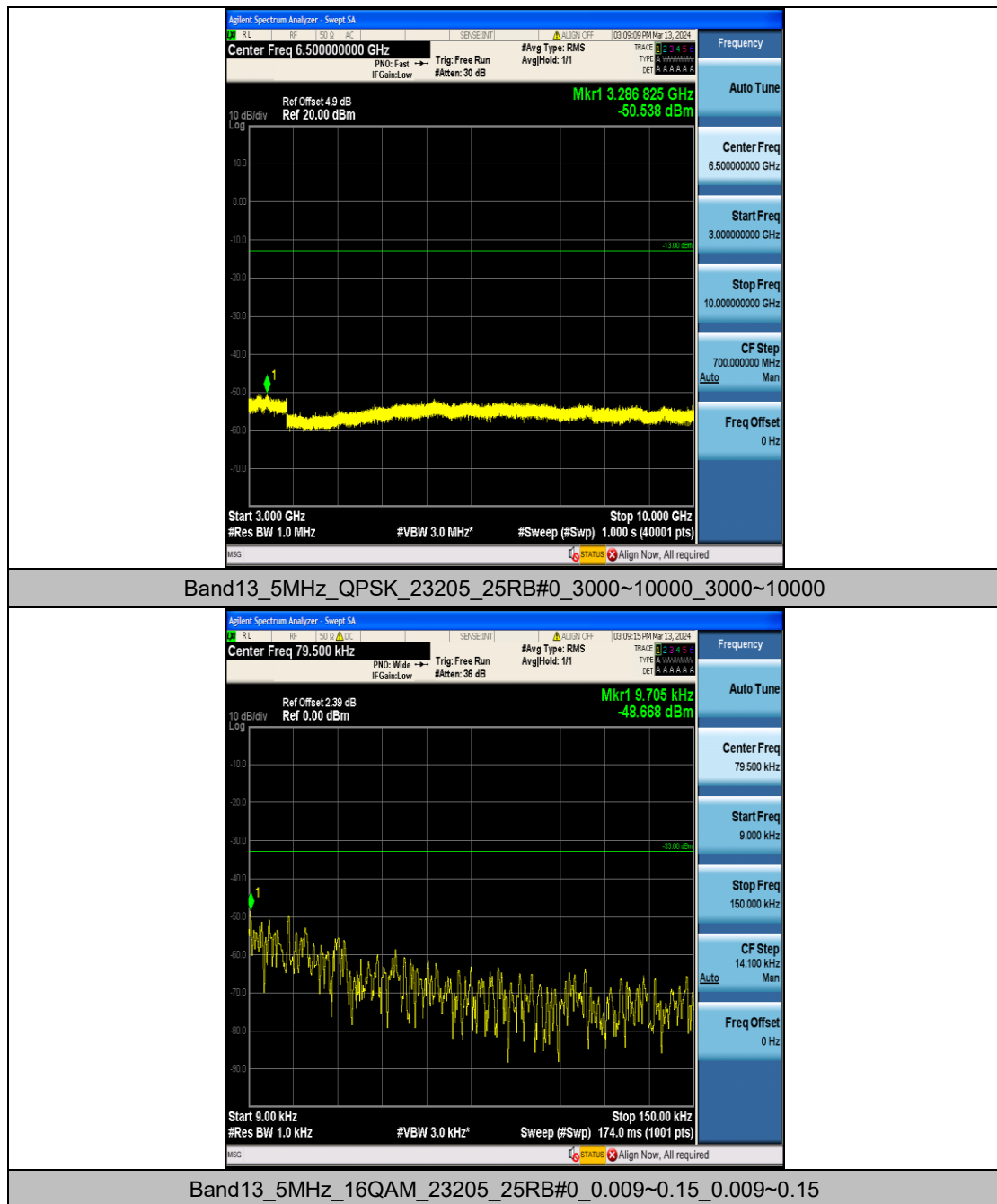
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	0.009~0.15	-49.64	PASS
Band13	5MHz	QPSK	23205	25RB#0	0.15~30	-59.20	PASS
Band13	5MHz	QPSK	23205	25RB#0	30~1000	-64.44	PASS
Band13	5MHz	QPSK	23205	25RB#0	1000~3000	-52.65	PASS
Band13	5MHz	QPSK	23205	25RB#0	3000~10000	-50.54	PASS
Band13	5MHz	16QAM	23205	25RB#0	0.009~0.15	-48.67	PASS
Band13	5MHz	16QAM	23205	25RB#0	0.15~30	-58.93	PASS
Band13	5MHz	16QAM	23205	25RB#0	30~1000	-63.98	PASS
Band13	5MHz	16QAM	23205	25RB#0	1000~3000	-52.47	PASS
Band13	5MHz	16QAM	23205	25RB#0	3000~10000	-50.00	PASS
Band13	5MHz	QPSK	23230	25RB#0	0.009~0.15	-45.76	PASS
Band13	5MHz	QPSK	23230	25RB#0	0.15~30	-58.99	PASS
Band13	5MHz	QPSK	23230	25RB#0	30~1000	-61.63	PASS
Band13	5MHz	QPSK	23230	25RB#0	1000~3000	-52.06	PASS
Band13	5MHz	QPSK	23230	25RB#0	3000~10000	-50.26	PASS
Band13	5MHz	16QAM	23230	25RB#0	0.009~0.15	-46.12	PASS
Band13	5MHz	16QAM	23230	25RB#0	0.15~30	-60.97	PASS
Band13	5MHz	16QAM	23230	25RB#0	30~1000	-54.30	PASS
Band13	5MHz	16QAM	23230	25RB#0	1000~3000	-52.76	PASS
Band13	5MHz	16QAM	23230	25RB#0	3000~10000	-50.30	PASS
Band13	5MHz	QPSK	23255	25RB#0	0.009~0.15	-48.59	PASS
Band13	5MHz	QPSK	23255	25RB#0	0.15~30	-57.79	PASS
Band13	5MHz	QPSK	23255	25RB#0	30~1000	-61.34	PASS
Band13	5MHz	QPSK	23255	25RB#0	1000~3000	-52.55	PASS
Band13	5MHz	QPSK	23255	25RB#0	3000~10000	-50.35	PASS
Band13	5MHz	16QAM	23255	25RB#0	0.009~0.15	-45.66	PASS
Band13	5MHz	16QAM	23255	25RB#0	0.15~30	-59.72	PASS
Band13	5MHz	16QAM	23255	25RB#0	30~1000	-53.44	PASS
Band13	5MHz	16QAM	23255	25RB#0	1000~3000	-52.56	PASS
Band13	5MHz	16QAM	23255	25RB#0	3000~10000	-50.11	PASS
Band13	10MHz	QPSK	23230	50RB#0	0.009~0.15	-45.59	PASS
Band13	10MHz	QPSK	23230	50RB#0	0.15~30	-60.94	PASS
Band13	10MHz	QPSK	23230	50RB#0	30~1000	-64.50	PASS
Band13	10MHz	QPSK	23230	50RB#0	1000~3000	-52.58	PASS
Band13	10MHz	QPSK	23230	50RB#0	3000~10000	-50.46	PASS
Band13	10MHz	16QAM	23230	50RB#0	0.009~0.15	-48.51	PASS

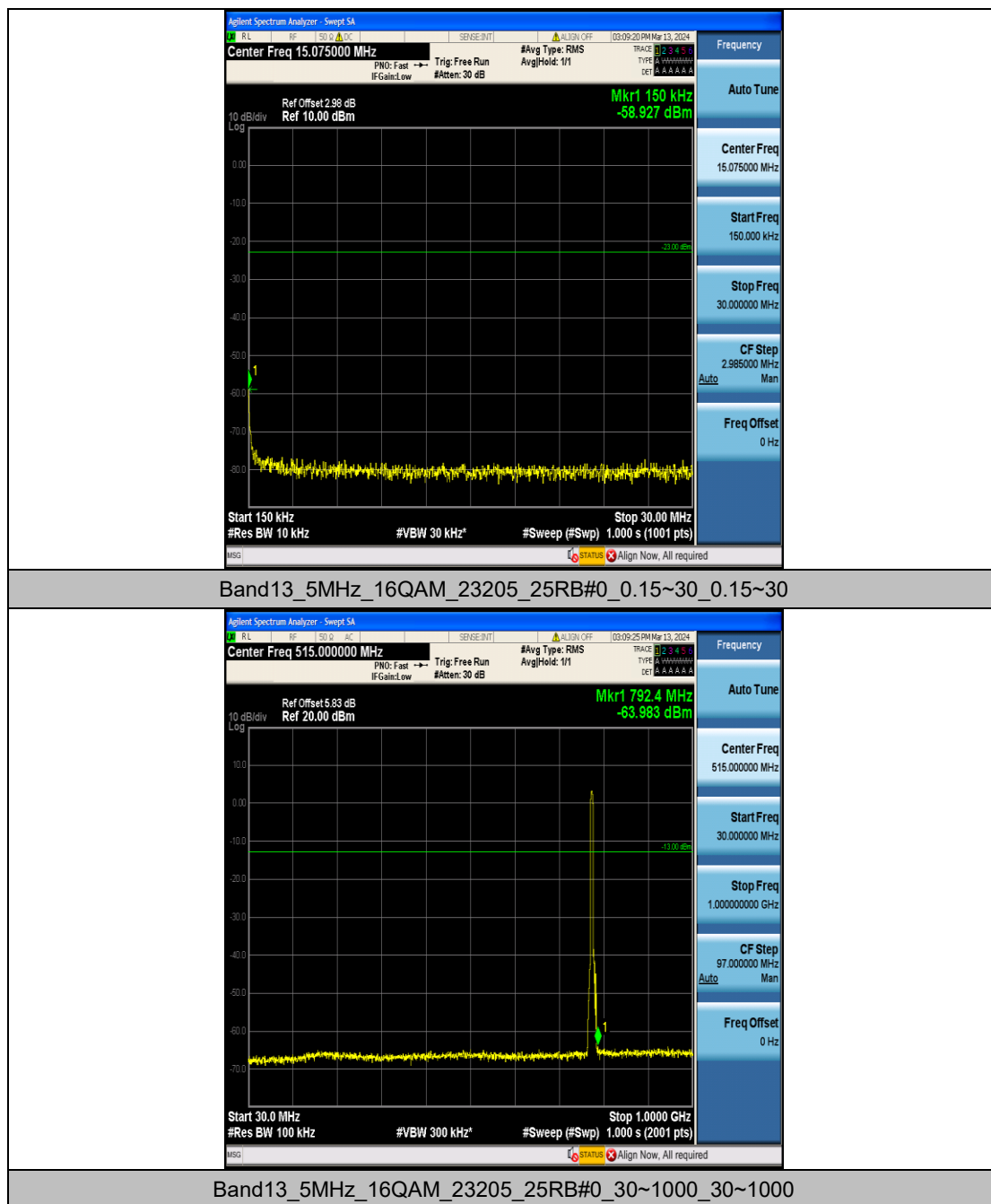
Band13	10MHz	16QAM	23230	50RB#0	0.15~30	-59.24	PASS
Band13	10MHz	16QAM	23230	50RB#0	30~1000	-64.51	PASS
Band13	10MHz	16QAM	23230	50RB#0	1000~3000	-52.47	PASS
Band13	10MHz	16QAM	23230	50RB#0	3000~10000	-49.74	PASS

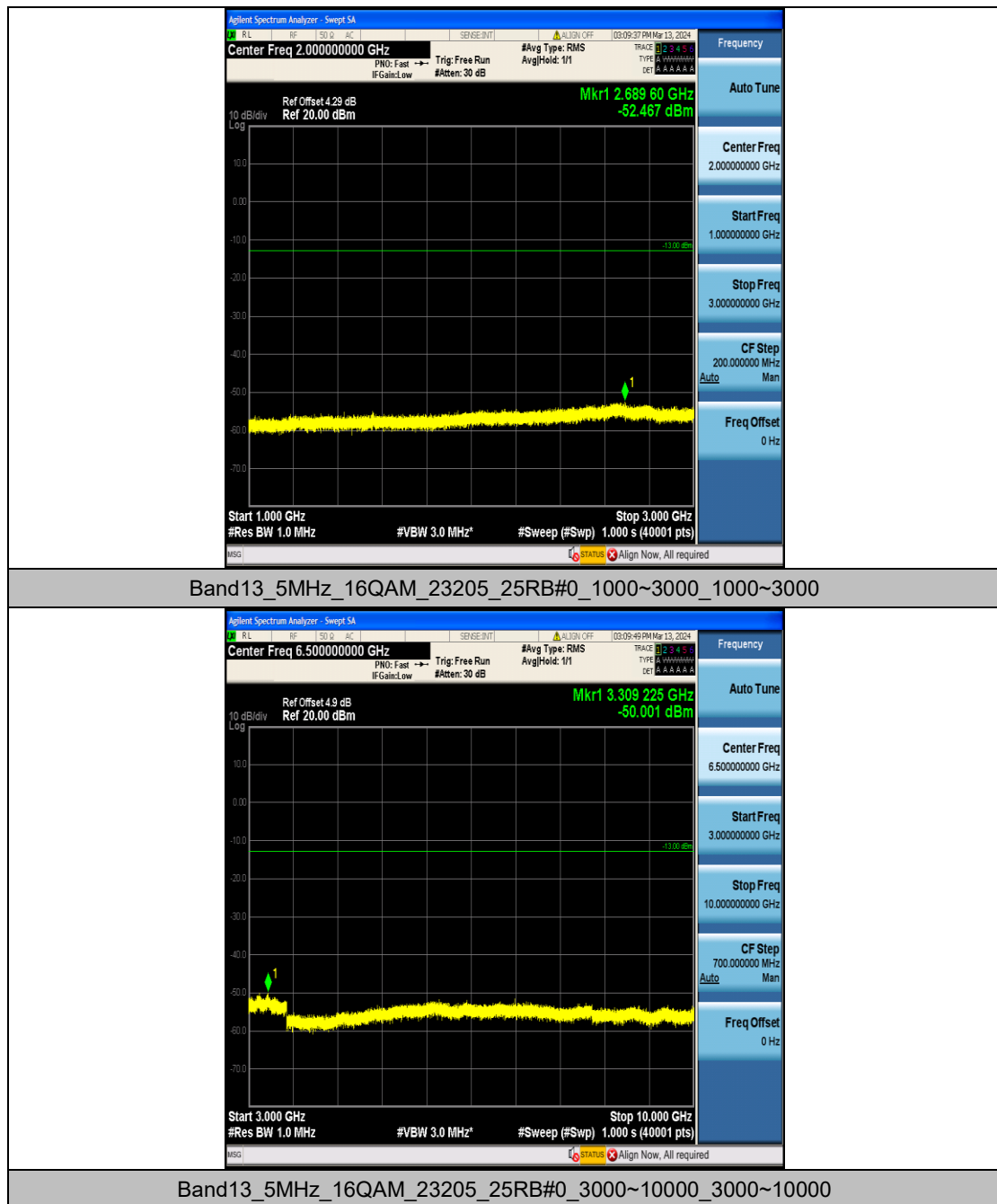
Test Graphs

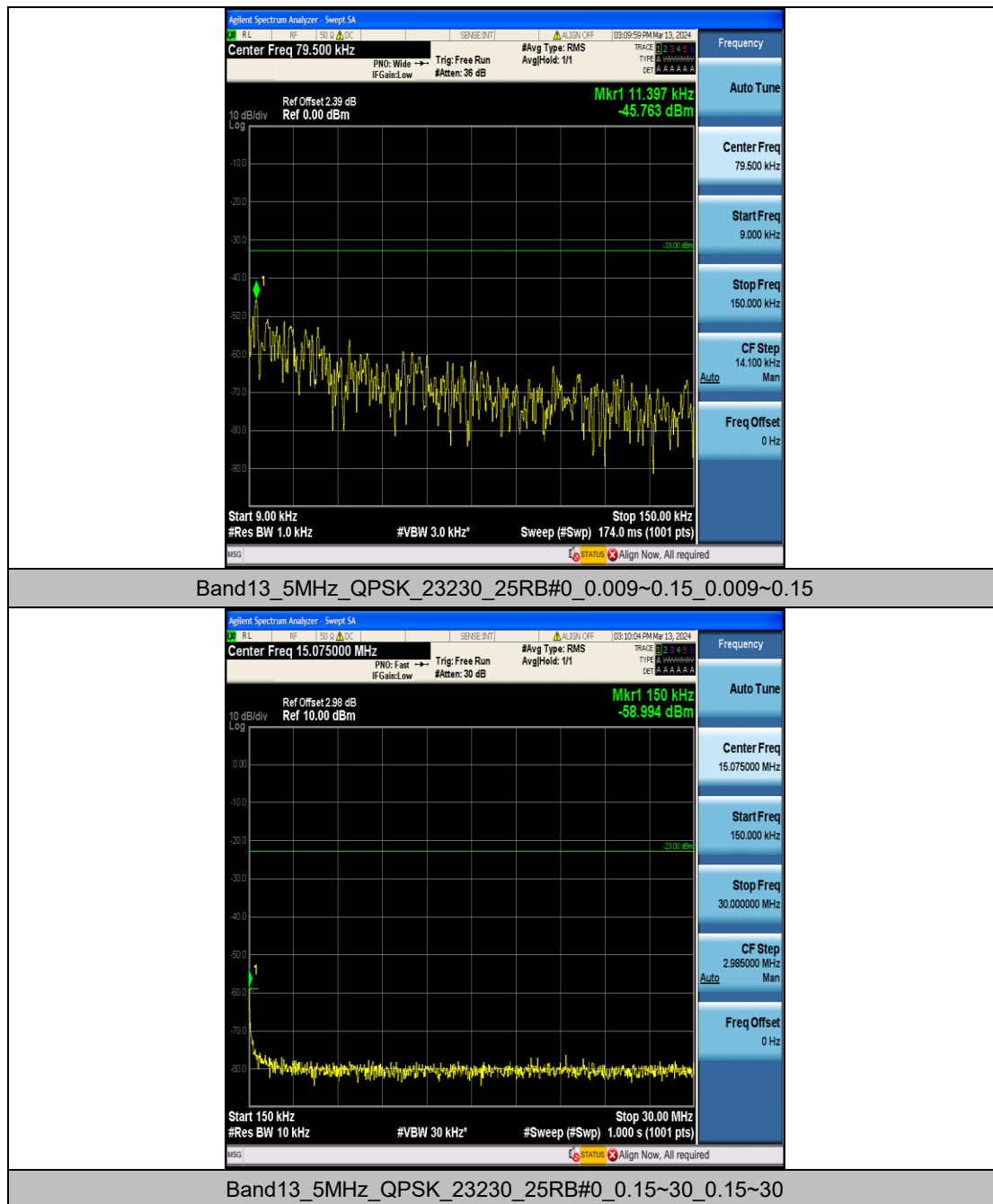


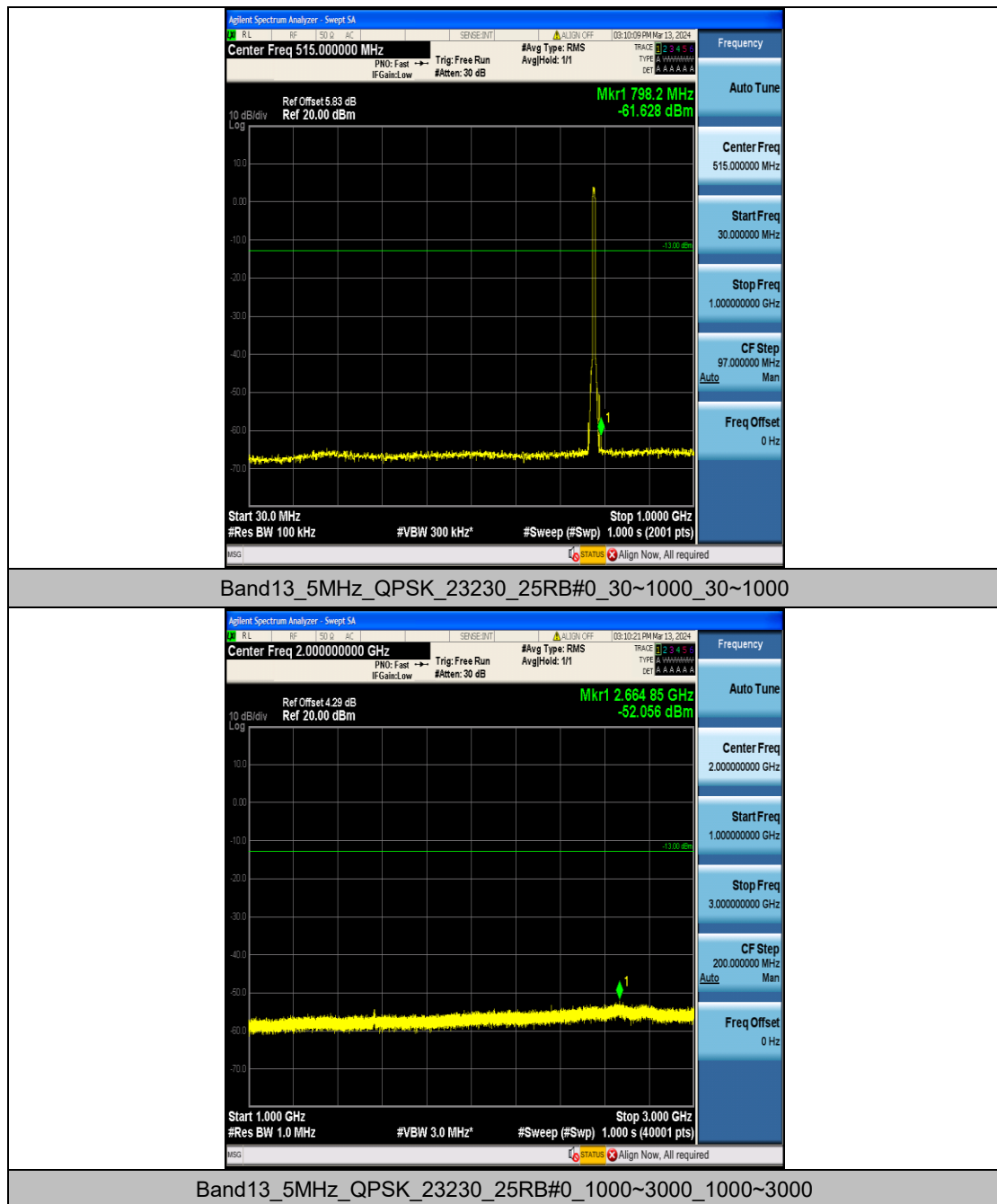


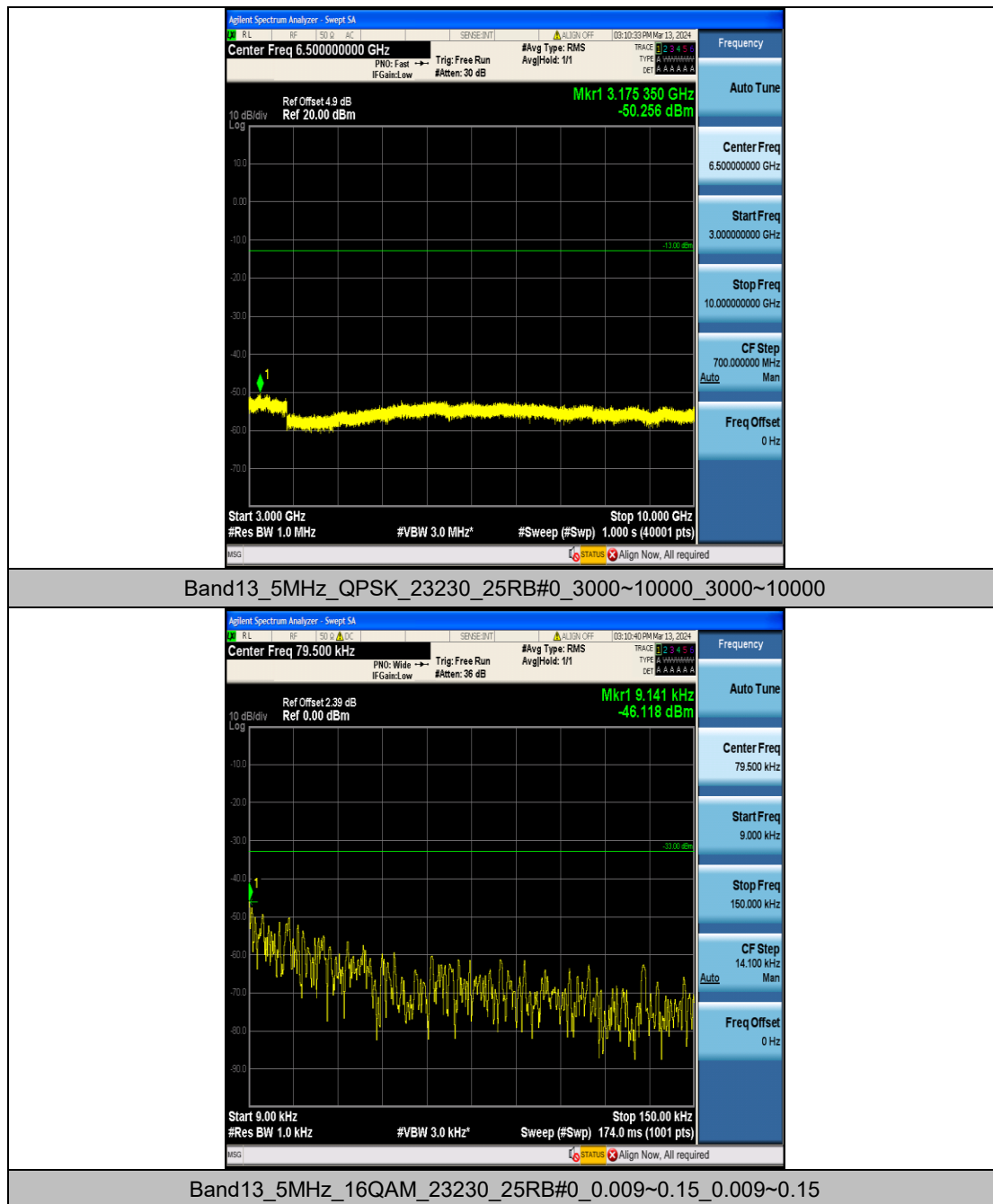


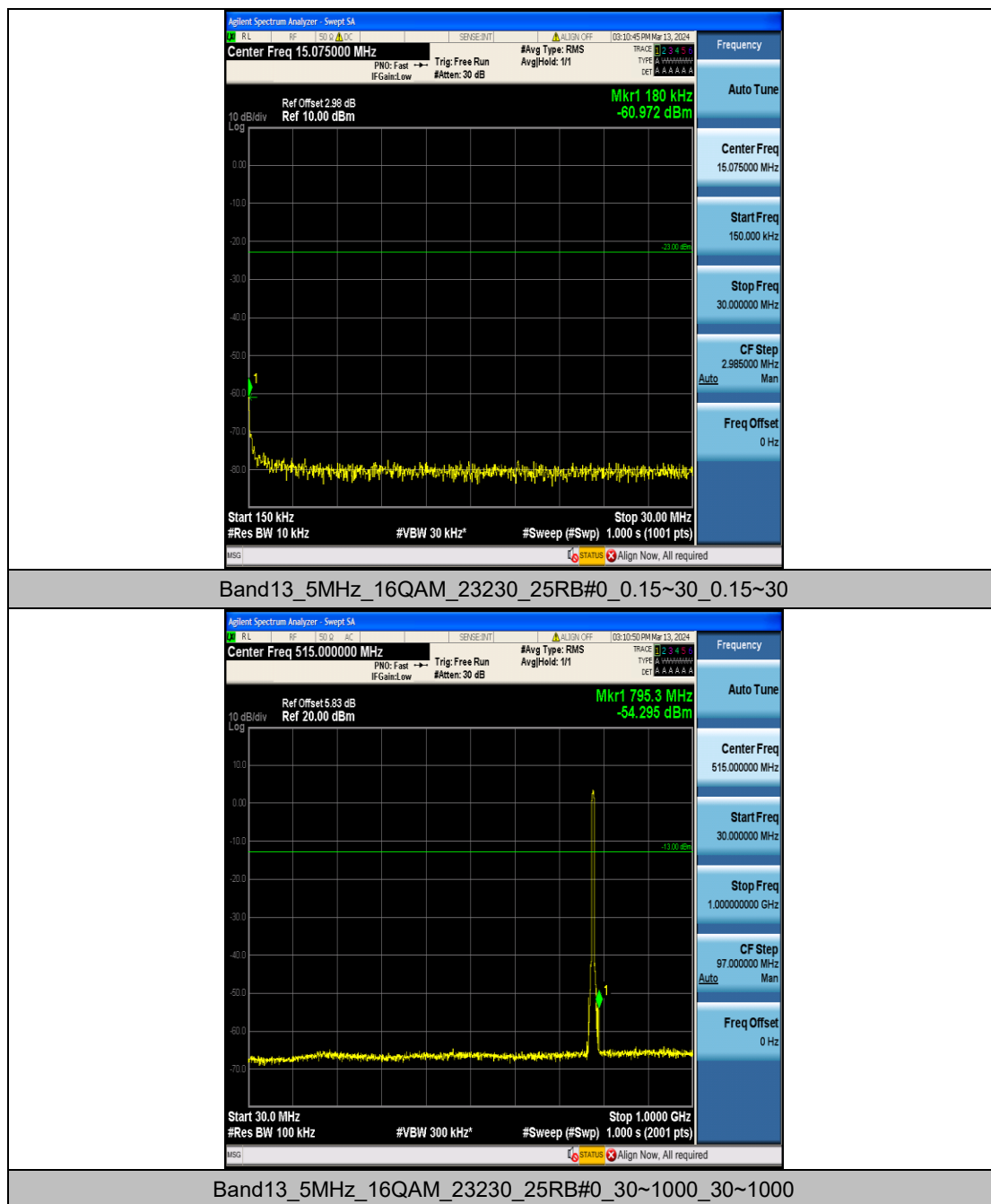


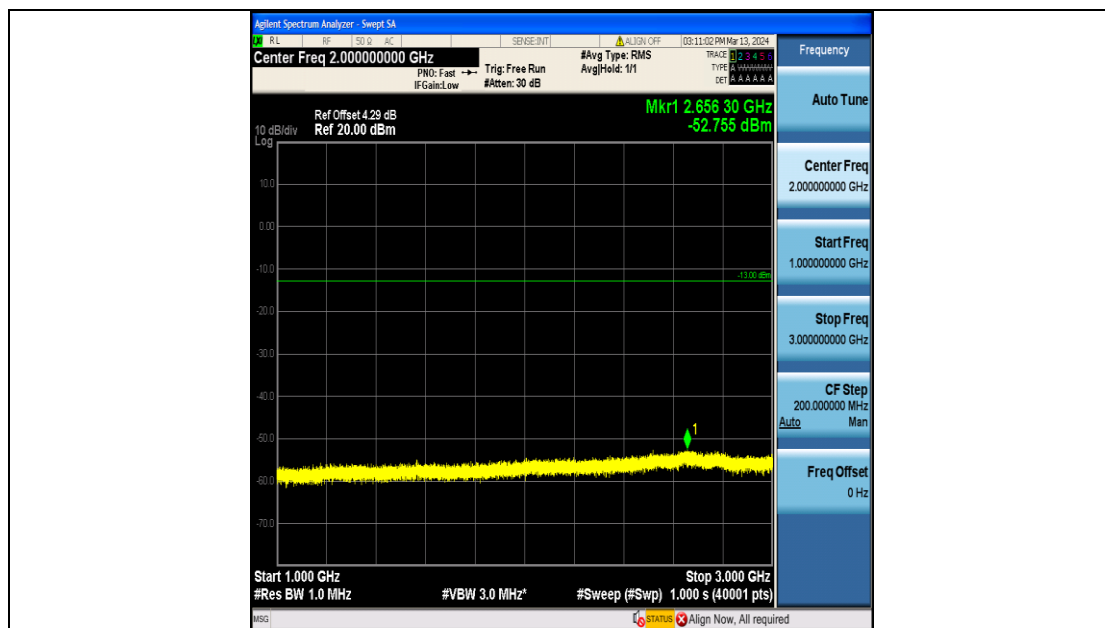




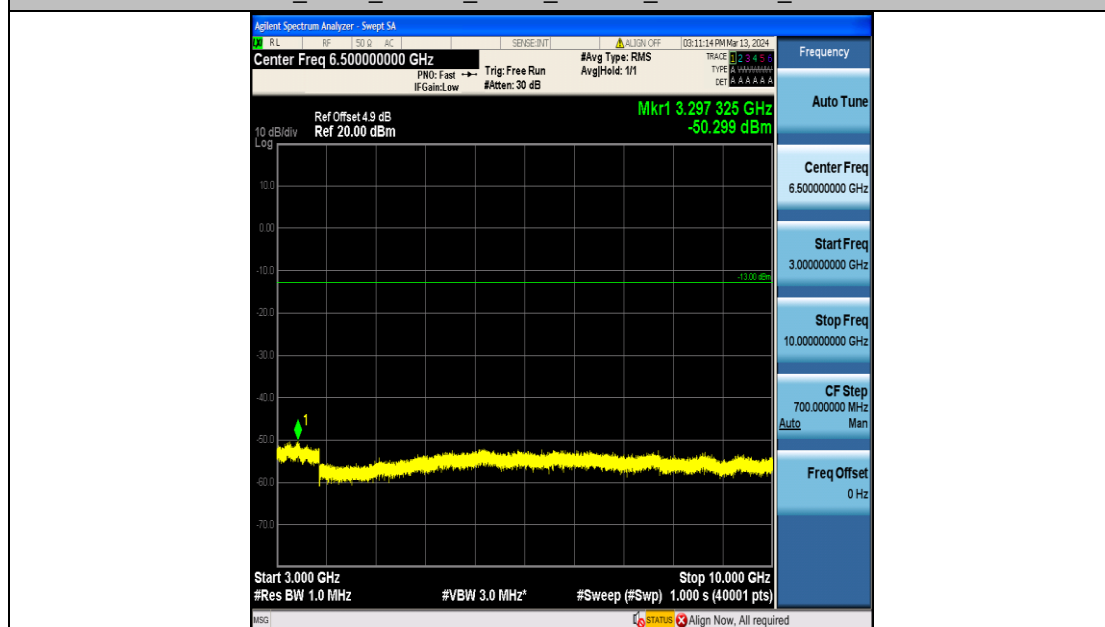




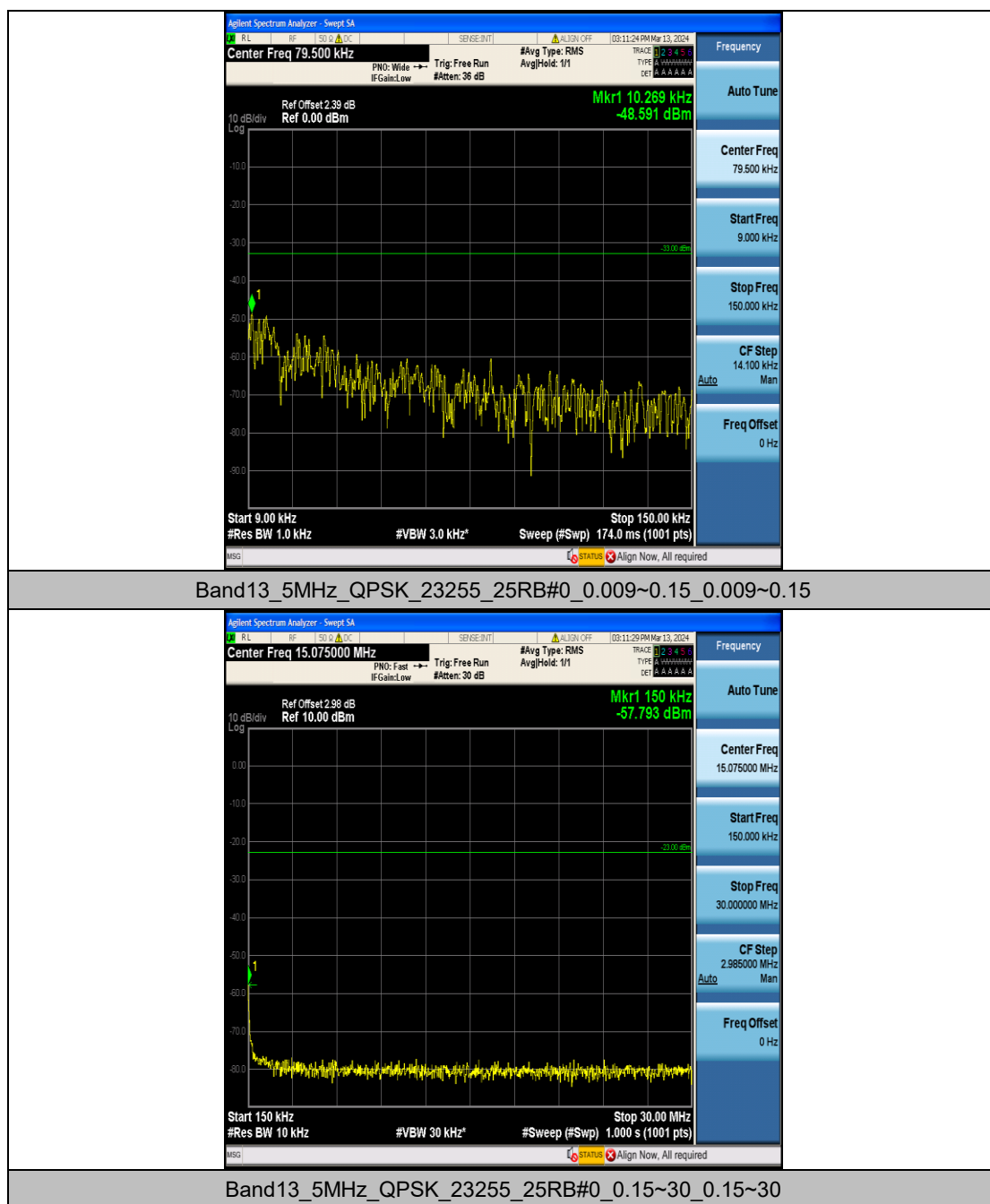


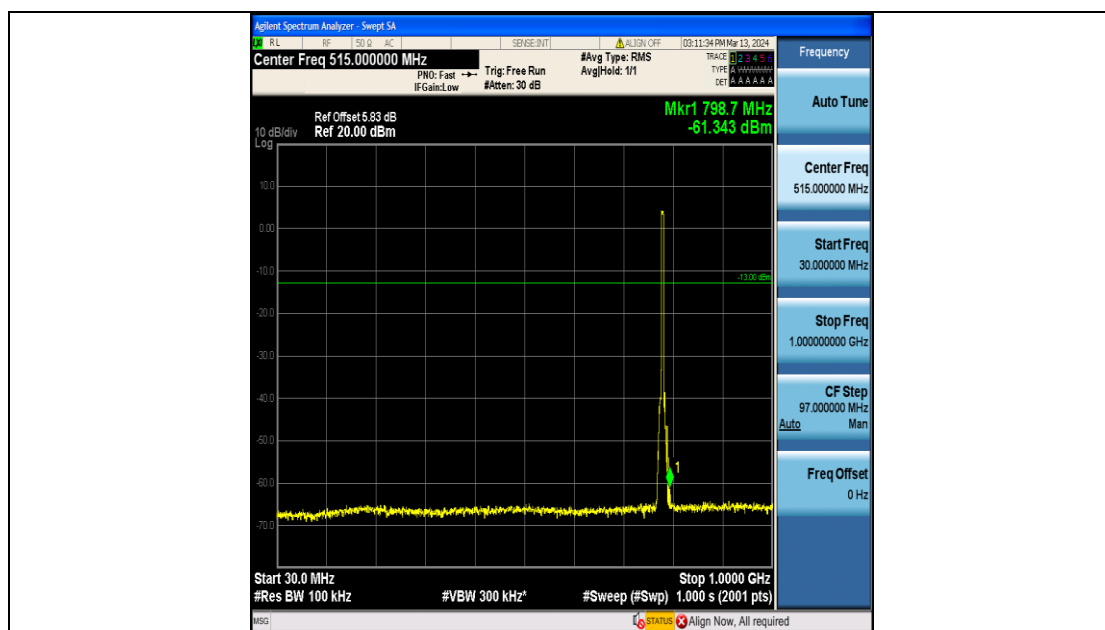


Band13_5MHz_16QAM_23230_25RB#0_1000~3000_1000~3000

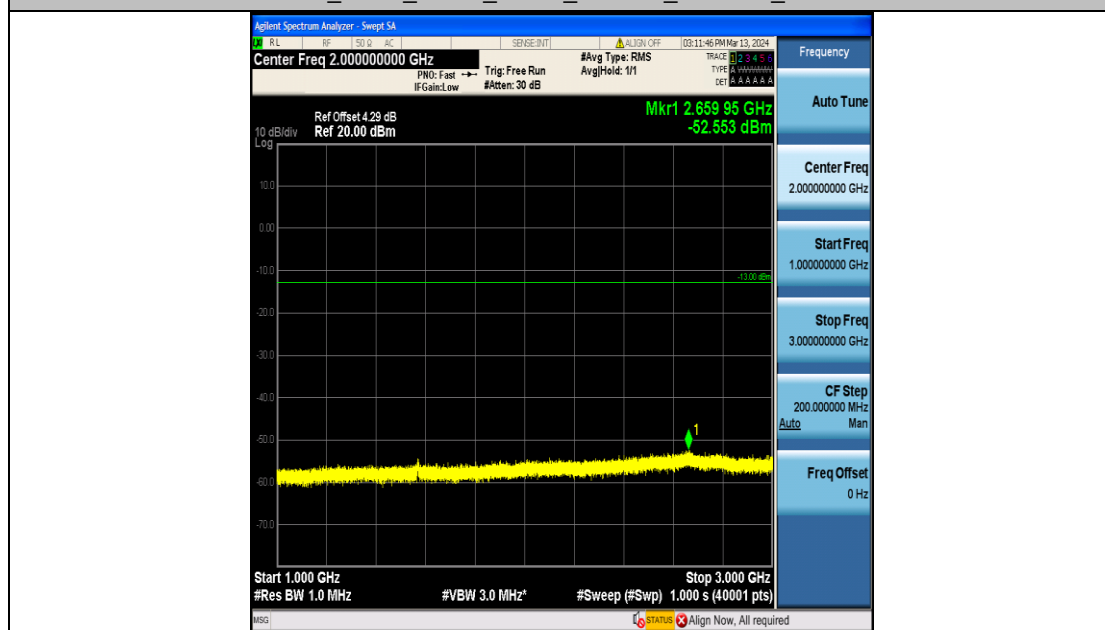


Band13_5MHz_16QAM_23230_25RB#0_3000~10000_3000~10000

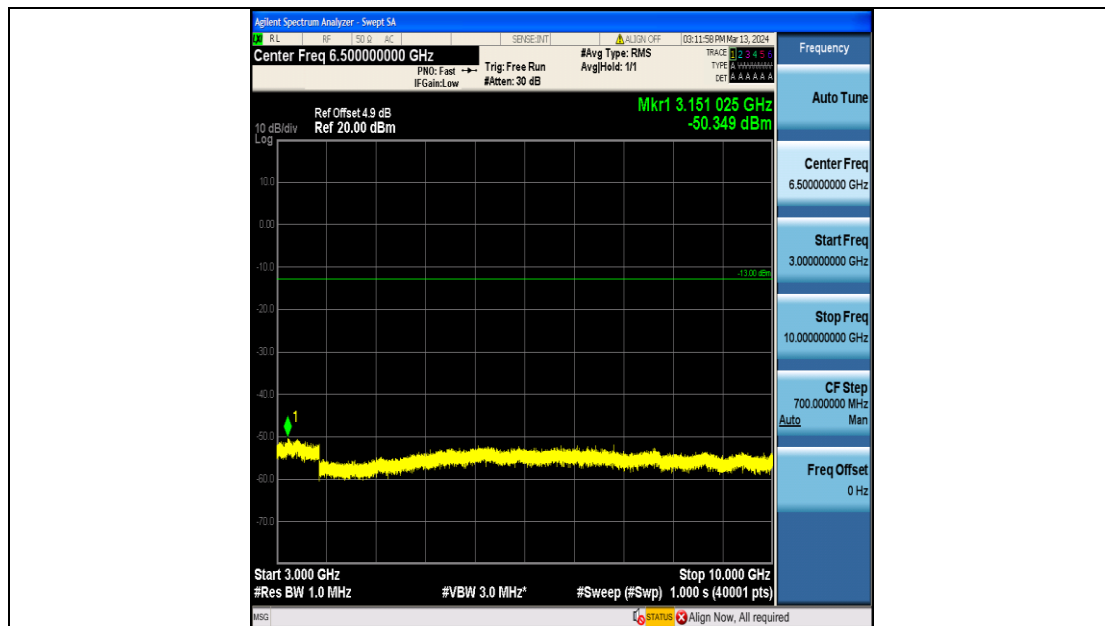




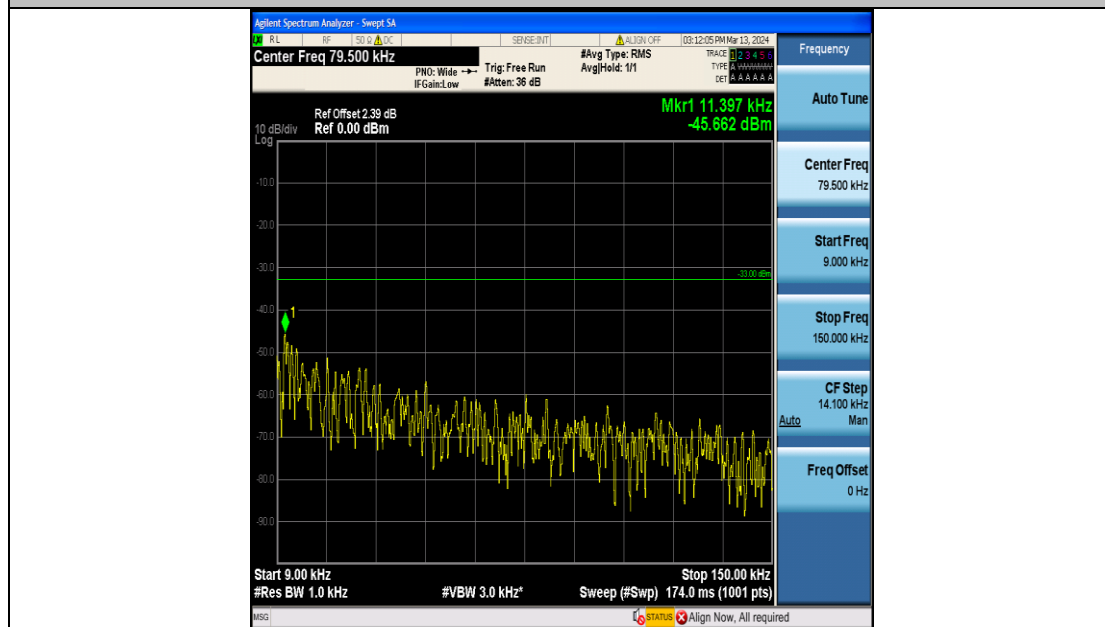
Band13_5MHz_QPSK_23255_25RB#0_30~1000_30~1000



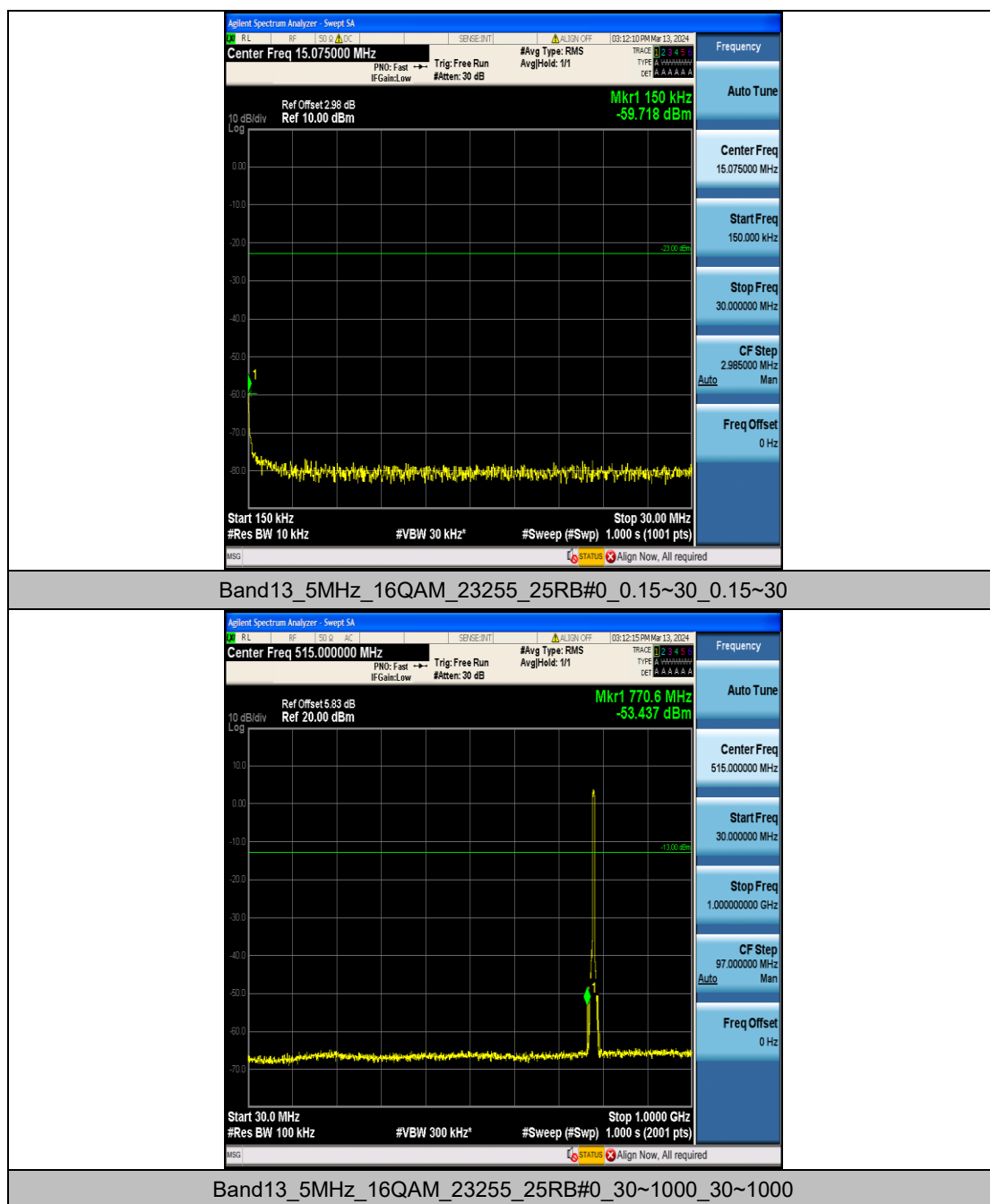
Band13_5MHz_QPSK_23255_25RB#0_1000~3000_1000~3000

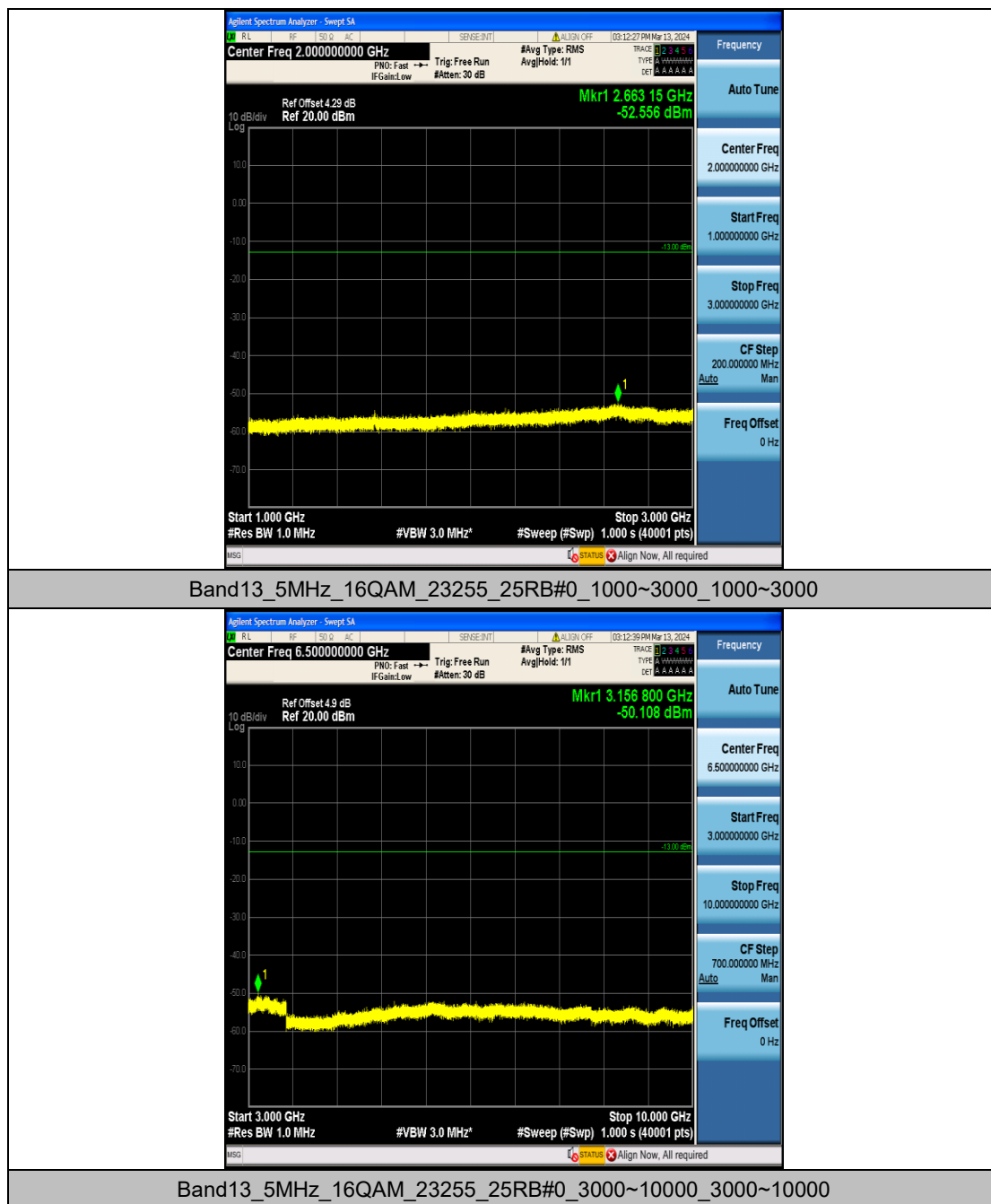


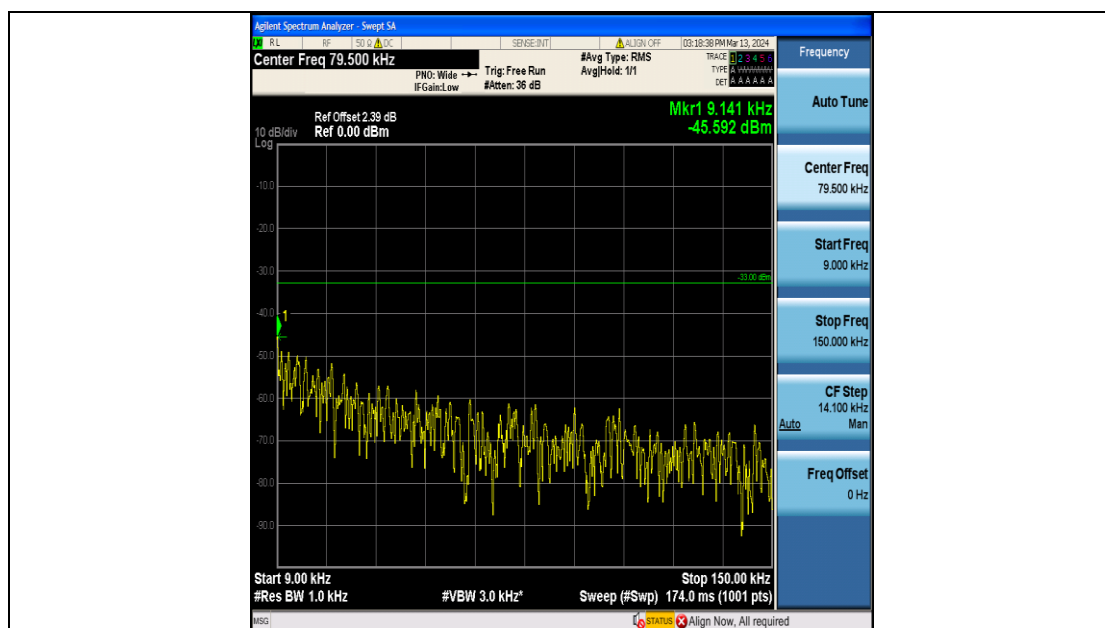
Band13_5MHz_QPSK_23255_25RB#0_3000~10000_3000~10000



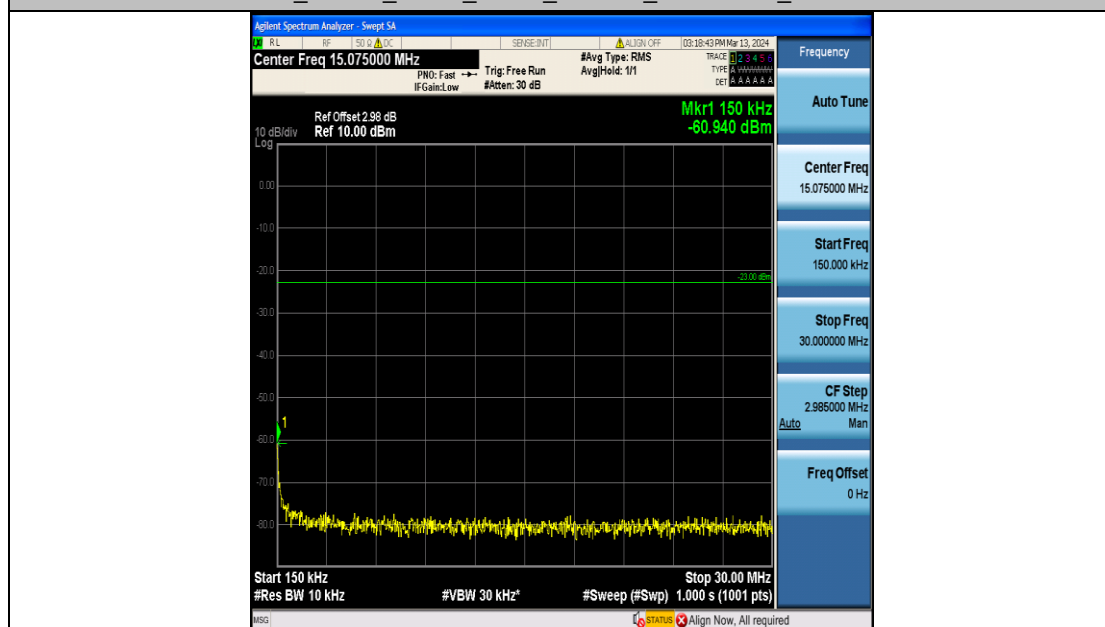
Band13_5MHz_16QAM_23255_25RB#0_0.009~0.15_0.009~0.15



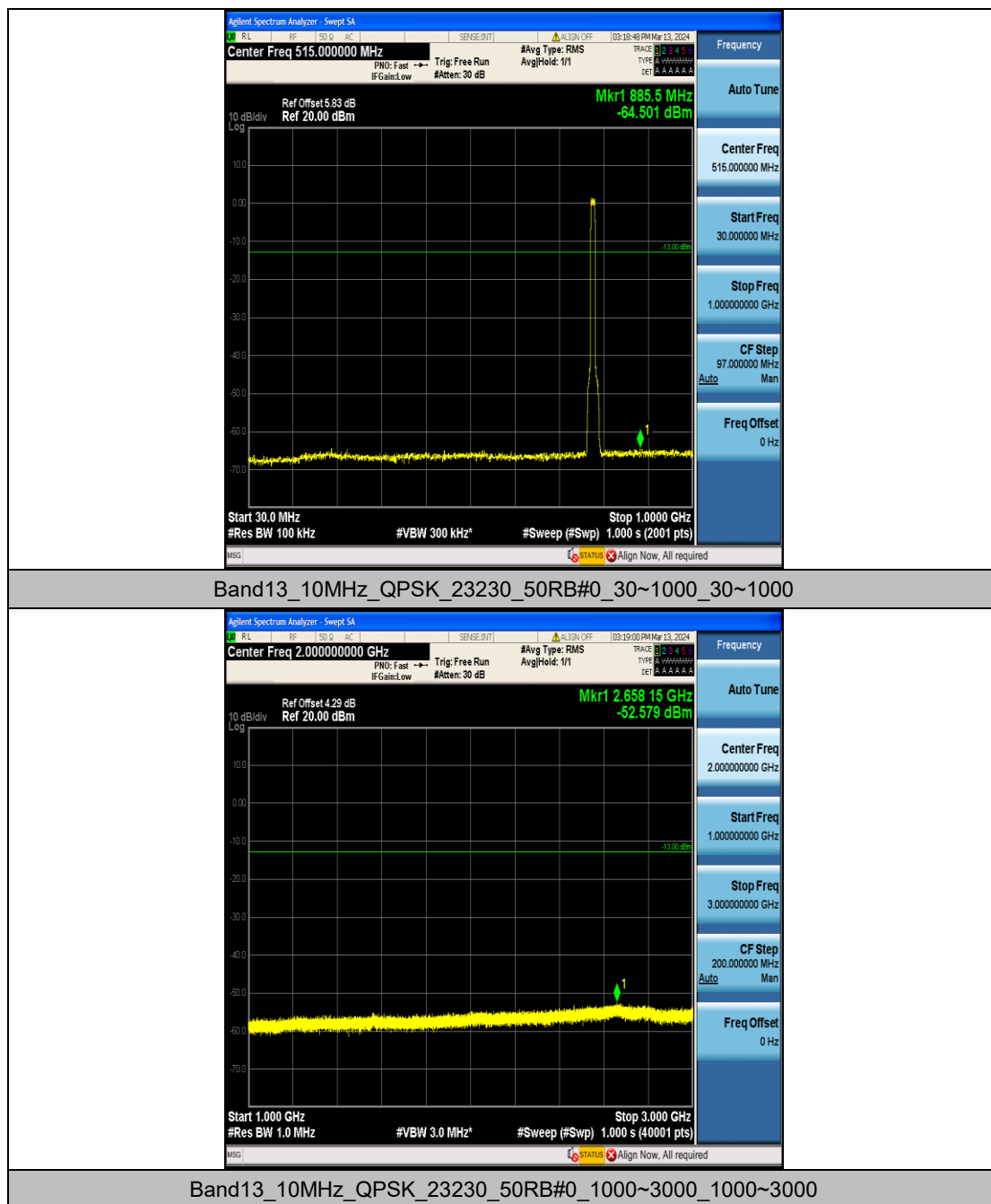


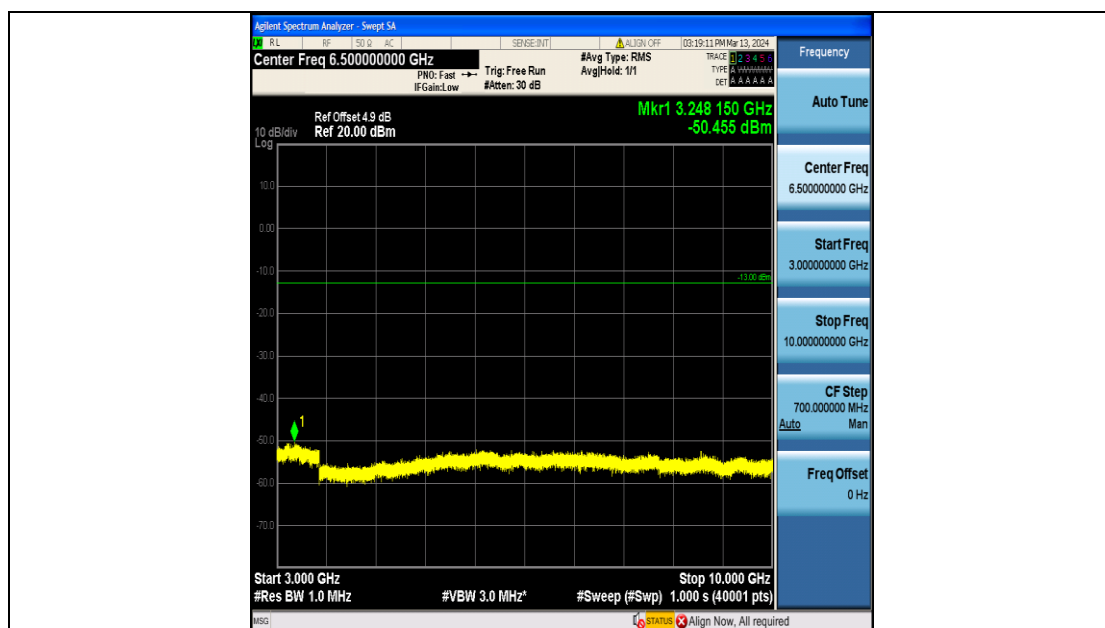


Band13_10MHz_QPSK_23230_50RB#0_0.009~0.15_0.009~0.15

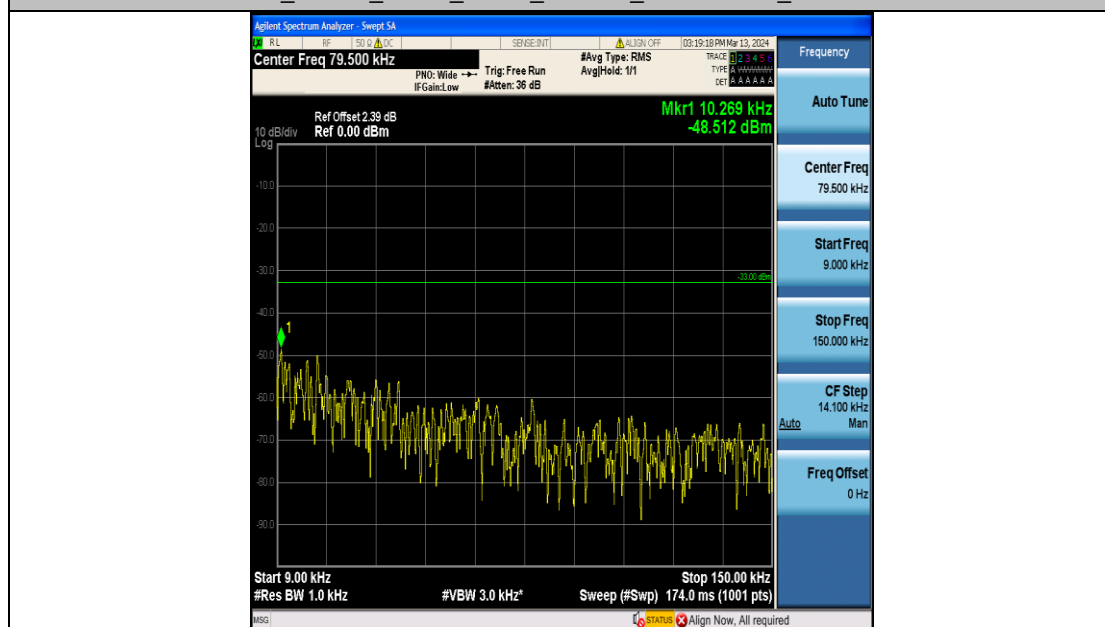


Band13_10MHz_QPSK_23230_50RB#0_0.15~30_0.15~30

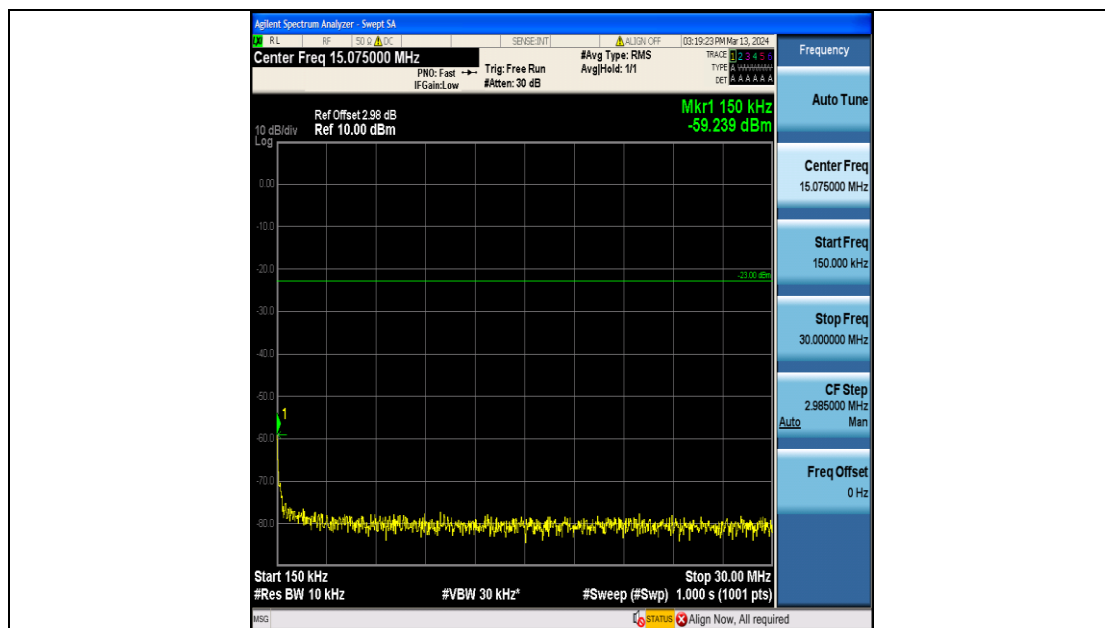




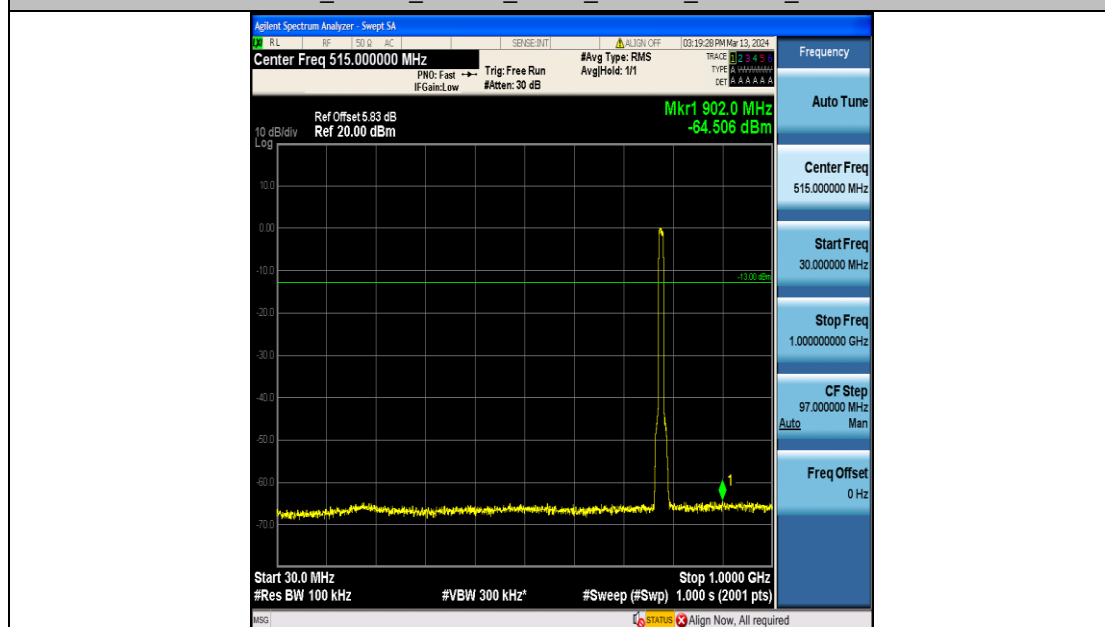
Band13_10MHz_QPSK_23230_50RB#0_3000~10000_3000~10000



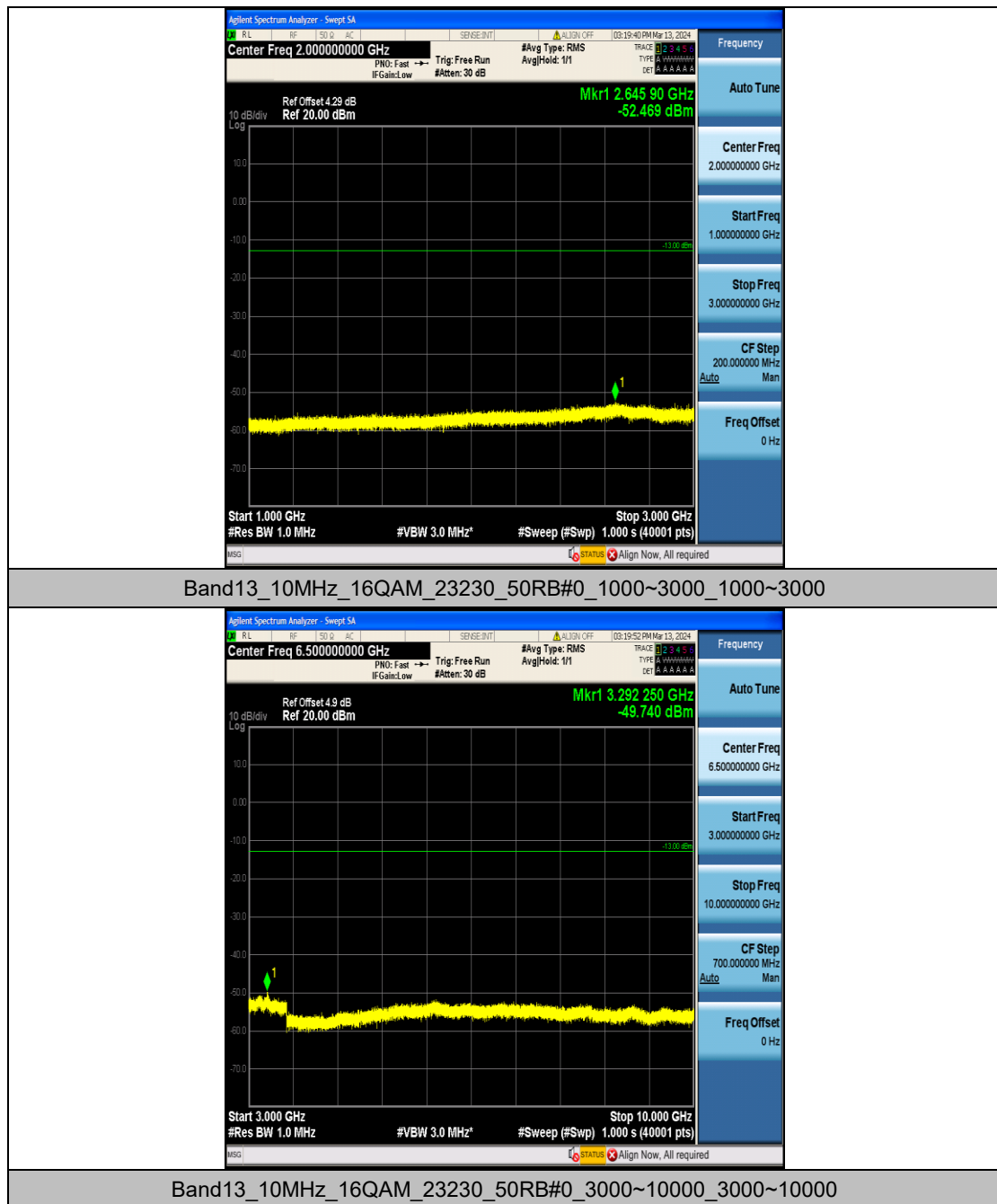
Band13_10MHz_16QAM_23230_50RB#0_0.009~0.15_0.009~0.15



Band13_10MHz_16QAM_23230_50RB#0_0.15~30_0.15~30



Band13_10MHz_16QAM_23230_50RB#0_30~1000_30~1000



Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	VN	NT	-6.42	-0.008236	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VL	NT	-4.86	-0.006235	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VH	NT	-9.80	-0.012572	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VN	NT	-9.14	-0.011725	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VL	NT	-4.08	-0.005234	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VH	NT	-16.04	-0.020577	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VN	NT	3.56	0.004552	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VL	NT	-12.92	-0.016522	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VH	NT	-9.91	-0.012673	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VN	NT	4.05	0.005179	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VL	NT	-18.07	-0.023107	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VH	NT	-7.02	-0.008977	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VN	NT	-8.96	-0.011421	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VL	NT	-12.97	-0.016533	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VH	NT	-11.73	-0.014952	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VN	NT	-8.43	-0.010746	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VL	NT	-10.51	-0.013397	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VH	NT	-15.22	-0.019401	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	-6.97	-0.008913	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-14.72	-0.018824	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-10.41	-0.013312	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	-13.25	-0.016944	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-6.39	-0.008171	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	-13.05	-0.016688	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	NV	-30	-4.46	-0.005722	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-20	-11.37	-0.014586	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-10	-6.85	-0.008788	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	0	-13.45	-0.017255	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	10	-11.67	-0.014971	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	20	-7.94	-0.010186	±2.5	PASS

Band13	5MHz	QPSK	23205	25RB#0	NV	30	-9.91	-0.012713	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	40	-10.33	-0.013252	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	50	-13.32	-0.017088	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-30	-13.56	-0.017396	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-20	-15.39	-0.019743	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-10	-1.75	-0.002245	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	0	-11.13	-0.014278	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	10	-11.66	-0.014958	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	20	-12.20	-0.015651	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	30	-10.57	-0.013560	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	40	-10.19	-0.013072	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	50	-5.45	-0.006992	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-30	-12.06	-0.015422	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-20	-3.86	-0.004936	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-10	-14.29	-0.018274	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	0	-12.55	-0.016049	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	10	-11.43	-0.014616	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	20	-9.13	-0.011675	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	30	-10.80	-0.013811	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	40	-11.07	-0.014156	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	50	-13.00	-0.016624	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-30	-12.06	-0.015422	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-20	1.82	0.002327	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-10	-3.29	-0.004207	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	0	-7.81	-0.009987	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	10	-2.07	-0.002647	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	20	-2.98	-0.003811	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	30	-9.10	-0.011637	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	40	-10.40	-0.013299	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	50	-14.63	-0.018708	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-30	-4.68	-0.005966	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-20	-9.41	-0.011995	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-10	-9.78	-0.012467	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	0	-10.93	-0.013932	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	10	-12.27	-0.015641	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	20	-7.50	-0.009560	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	30	-8.33	-0.010618	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	40	-12.72	-0.016214	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	50	-16.54	-0.021083	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-30	-2.73	-0.003480	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-20	-9.96	-0.012696	±2.5	PASS

Band13	5MHz	16QAM	23255	25RB#0	NV	-10	-6.24	-0.007954	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	0	-11.26	-0.014353	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	10	-8.33	-0.010618	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	20	-8.10	-0.010325	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	30	-9.94	-0.012670	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	40	1.85	0.002358	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	50	-18.12	-0.023098	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	-9.44	-0.012072	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-12.83	-0.016407	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-12.50	-0.015985	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-7.85	-0.010038	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-12.50	-0.015985	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-14.12	-0.018056	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-16.37	-0.020934	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-14.29	-0.018274	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	-16.88	-0.021586	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	-4.21	-0.005384	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	-7.02	-0.008977	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-10	-4.45	-0.005691	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	-10.47	-0.013389	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	-12.32	-0.015754	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	-3.83	-0.004898	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	-16.16	-0.020665	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	-11.89	-0.015205	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	-1.56	-0.001995	±2.5	PASS