

Appendix Test Data for WLAN(2.4G) (Conducted Measurement)

Product Name: Biometric Safe

Trade Mark: PINEWORLD

Test Model: K3 Pro

FCC ID: 2A2WS-K3PRO

Environmental Conditions

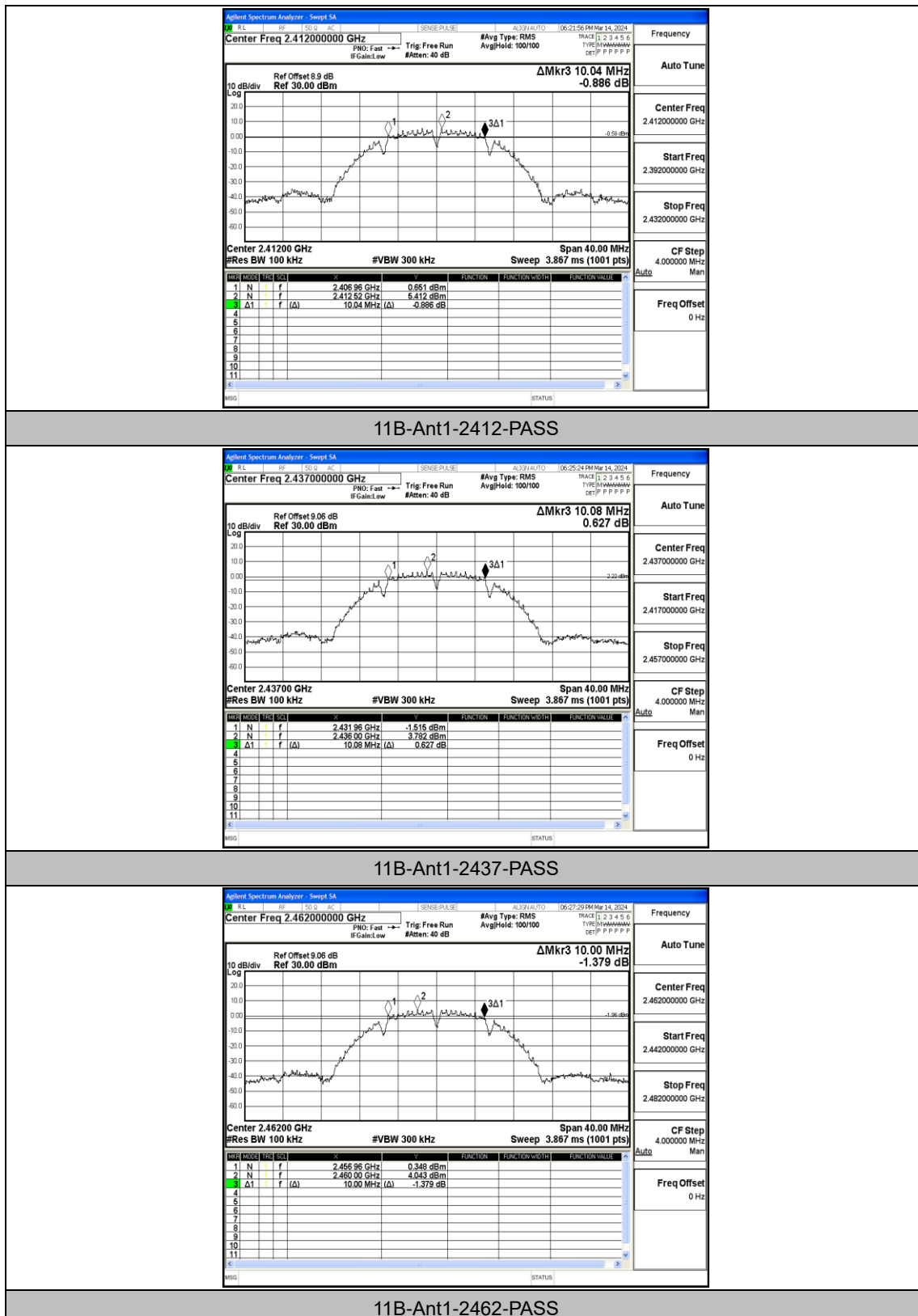
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

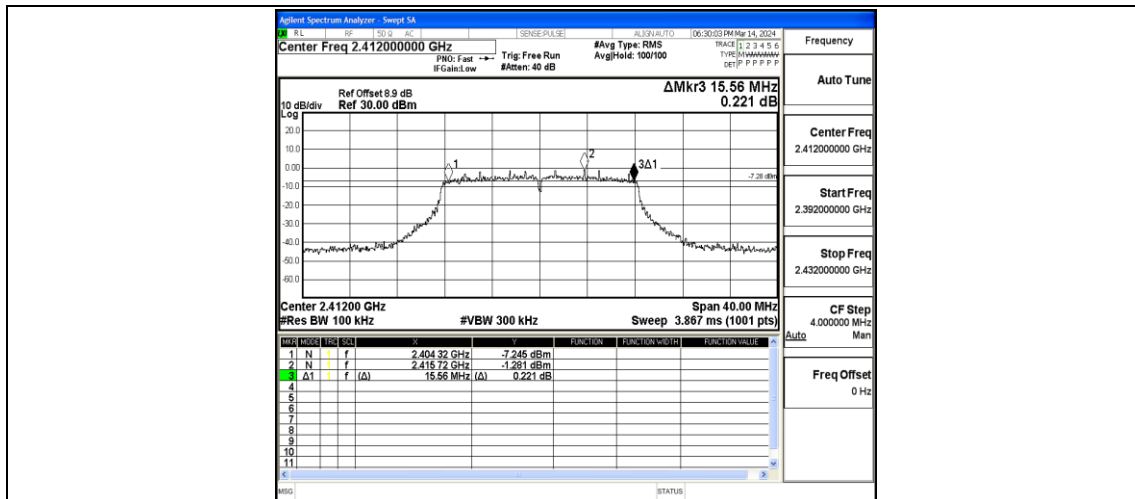
Appendix A: DTS Bandwidth

Test Result

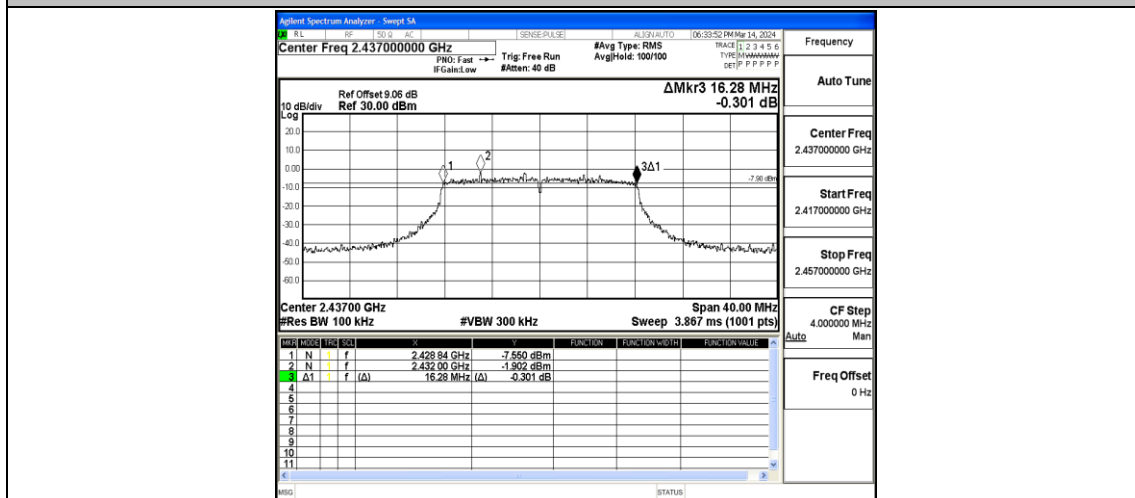
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2406.960	2417.000	0.5	PASS
11B	Ant1	2437	10.080	2431.960	2442.040	0.5	PASS
11B	Ant1	2462	10.000	2456.960	2466.960	0.5	PASS
11G	Ant1	2412	15.560	2404.320	2419.880	0.5	PASS
11G	Ant1	2437	16.280	2428.840	2445.120	0.5	PASS
11G	Ant1	2462	15.760	2454.120	2469.880	0.5	PASS
11N20SISO	Ant1	2412	13.880	2405.680	2419.560	0.5	PASS
11N20SISO	Ant1	2437	15.600	2429.200	2444.800	0.5	PASS
11N20SISO	Ant1	2462	15.760	2454.080	2469.840	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
11N40SISO	Ant1	2437	35.520	2419.080	2454.600	0.5	PASS
11N40SISO	Ant1	2452	35.120	2434.480	2469.600	0.5	PASS

Test Graphs

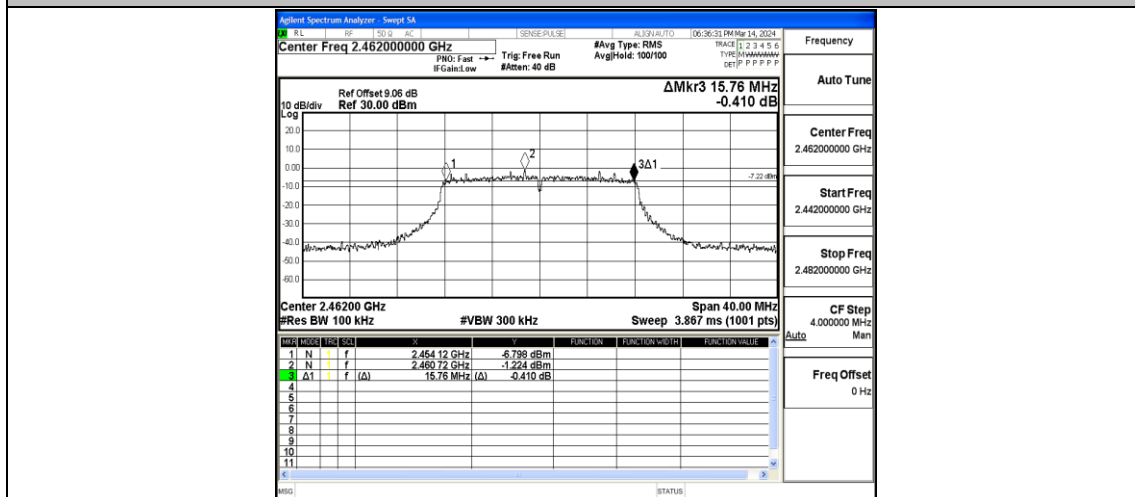




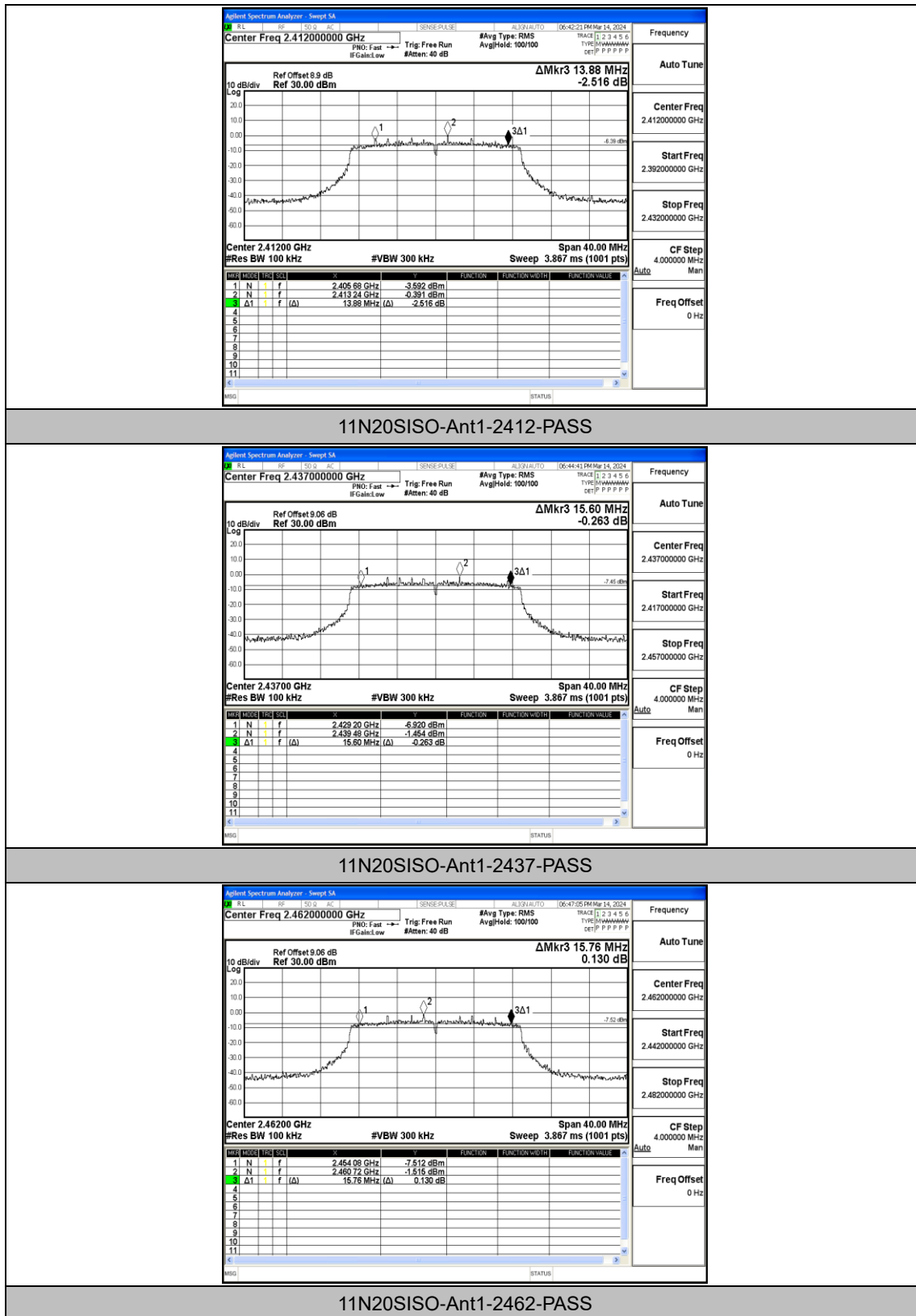
11G-Ant1-2412-PASS

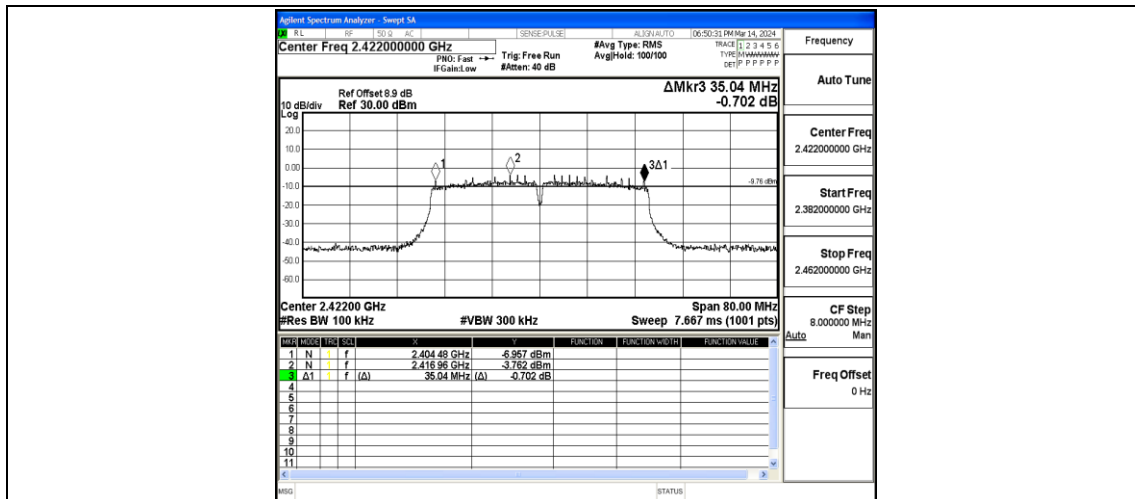


11G-Ant1-2437-PASS

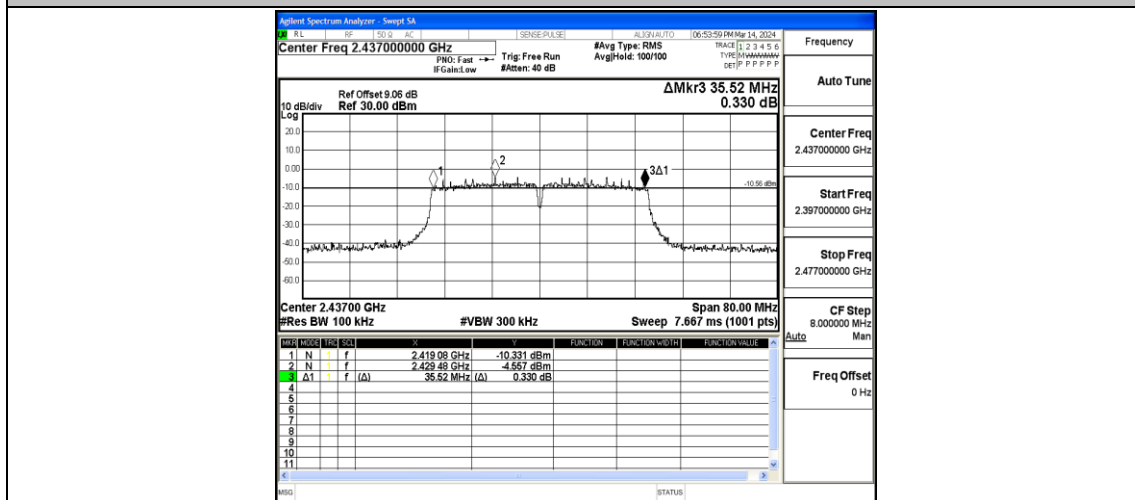


11G-Ant1-2462-PASS

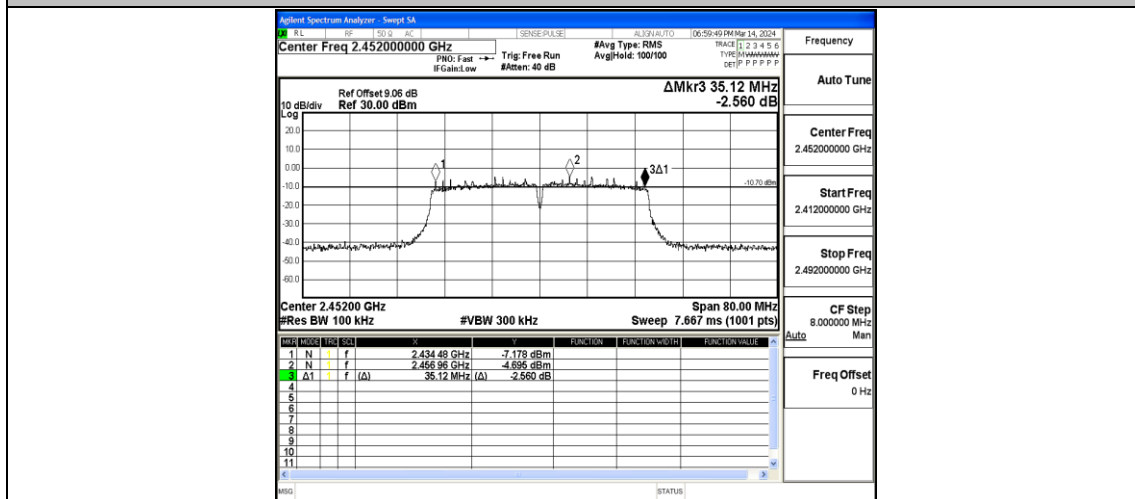




11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



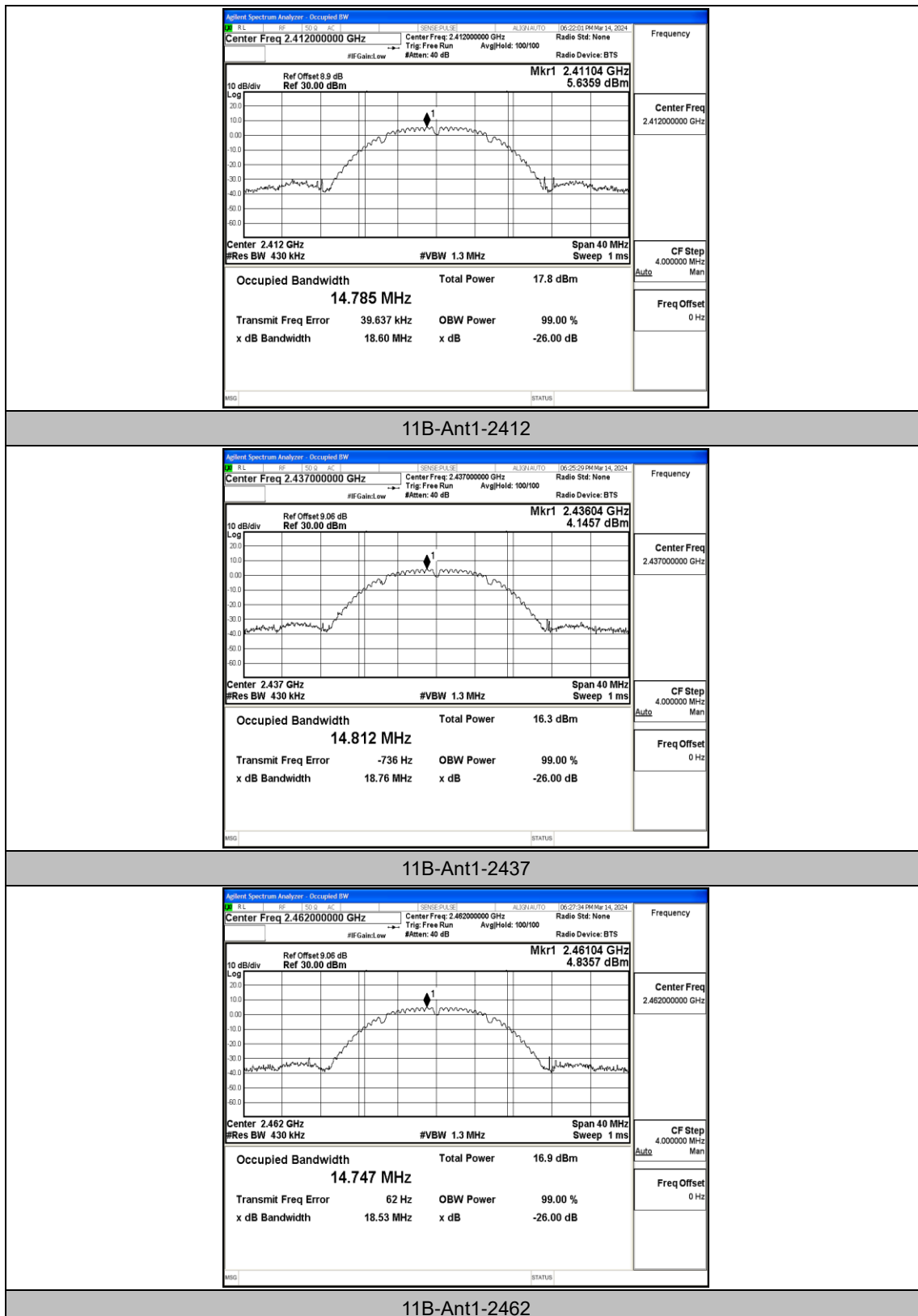
11N40SISO-Ant1-2452-PASS

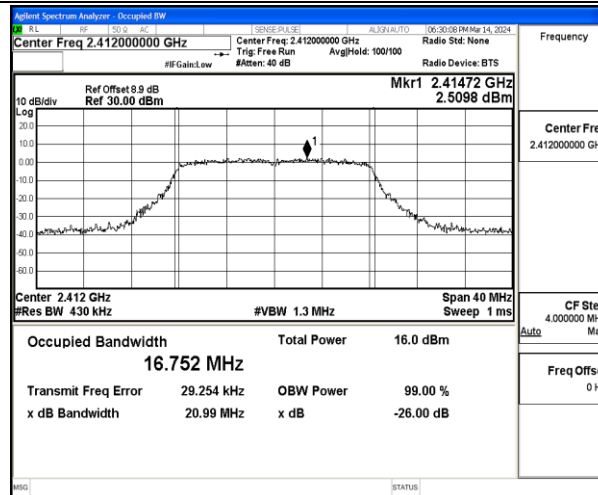
Appendix B: Occupied Channel Bandwidth

Test Result

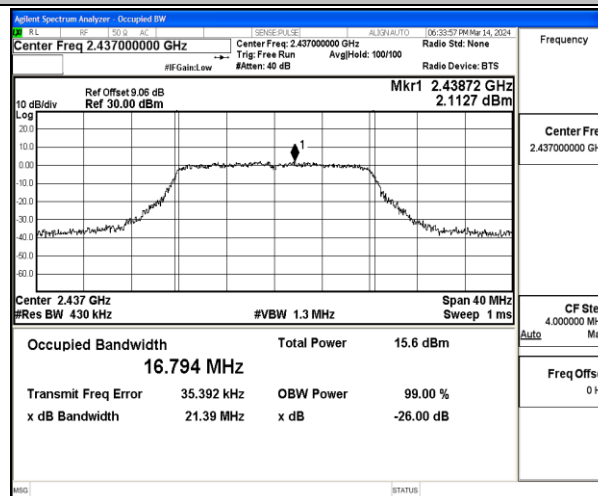
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.785	2404.6471	2419.4321	---	---
11B	Ant1	2437	14.812	2429.5933	2444.4053	---	---
11B	Ant1	2462	14.747	2454.6266	2469.3736	---	---
11G	Ant1	2412	16.752	2403.6533	2420.4053	---	---
11G	Ant1	2437	16.794	2428.6384	2445.4324	---	---
11G	Ant1	2462	16.748	2453.6426	2470.3906	---	---
11N20SISO	Ant1	2412	17.821	2403.1176	2420.9386	---	---
11N20SISO	Ant1	2437	17.821	2428.1286	2445.9496	---	---
11N20SISO	Ant1	2462	17.853	2453.0753	2470.9283	---	---
11N40SISO	Ant1	2422	36.184	2403.9267	2440.1107	---	---
11N40SISO	Ant1	2437	36.230	2418.9471	2455.1771	---	---
11N40SISO	Ant1	2452	36.227	2433.9728	2470.1998	---	---

Test Graphs

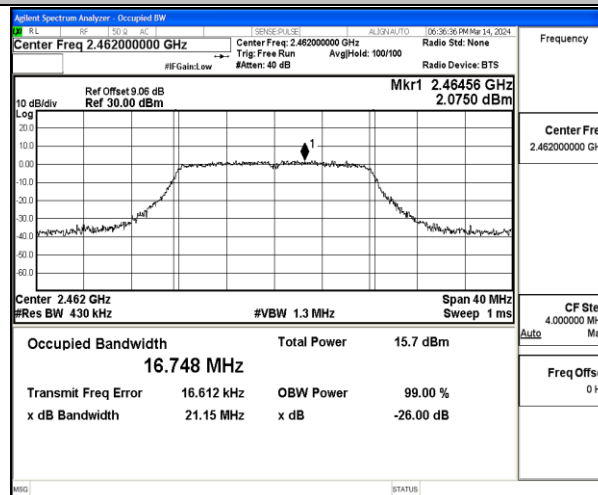




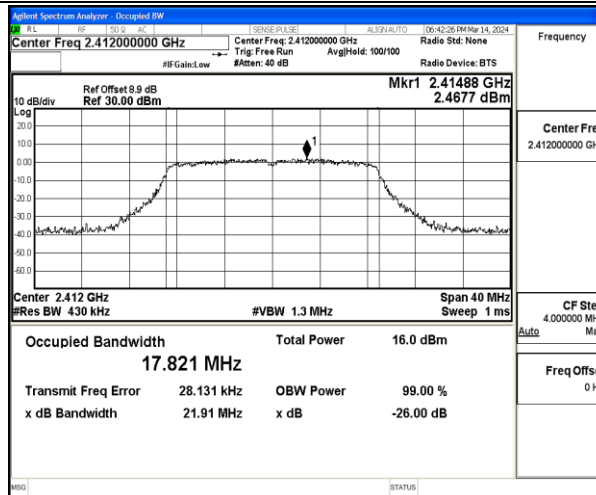
11G-Ant1-2412



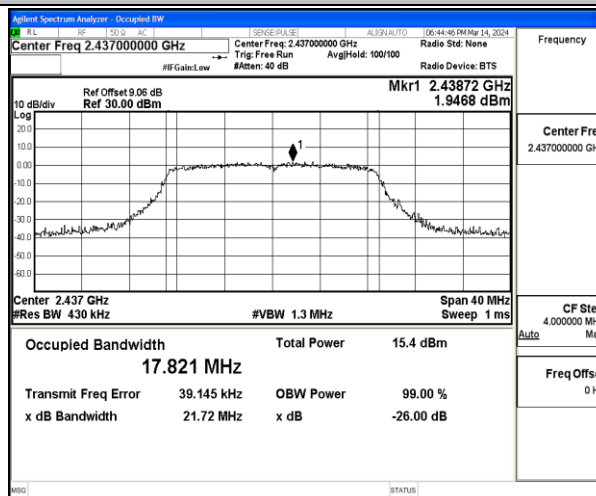
11G-Ant1-2437



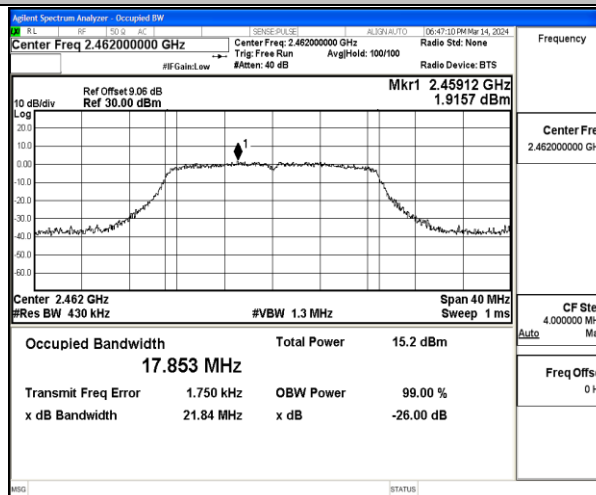
11G-Ant1-2462



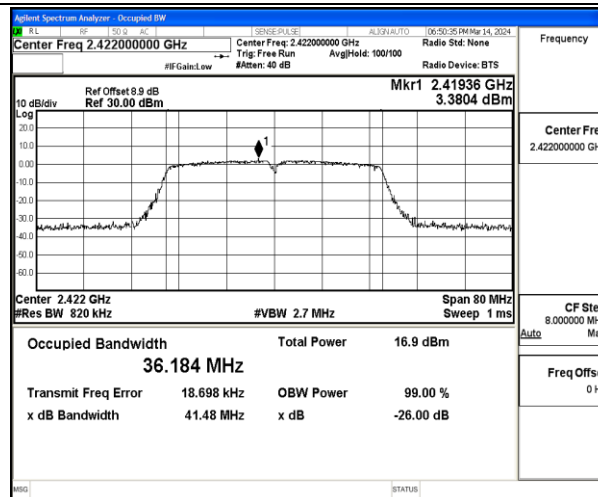
11N20SISO-Ant1-2412



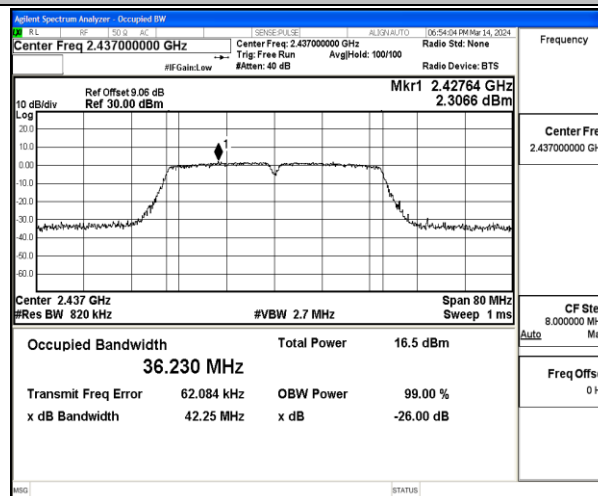
11N20SISO-Ant1-2437



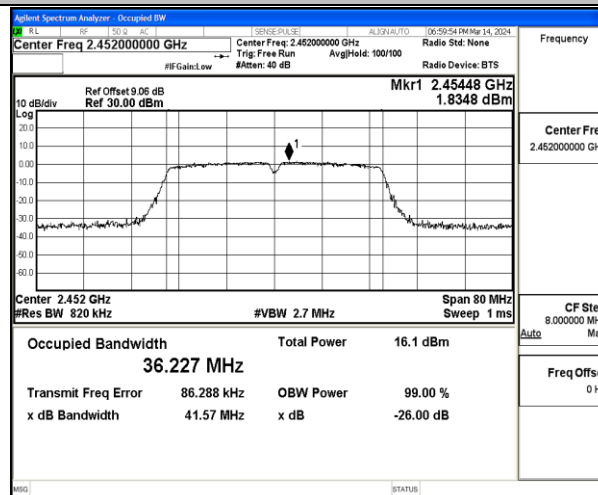
11N20SISO-Ant1-2462



11N40SISO-Ant1-2422



11N40SISO-Ant1-2437



11N40SISO-Ant1-2452

Appendix C: Maximum Peak conducted output power

Test Result

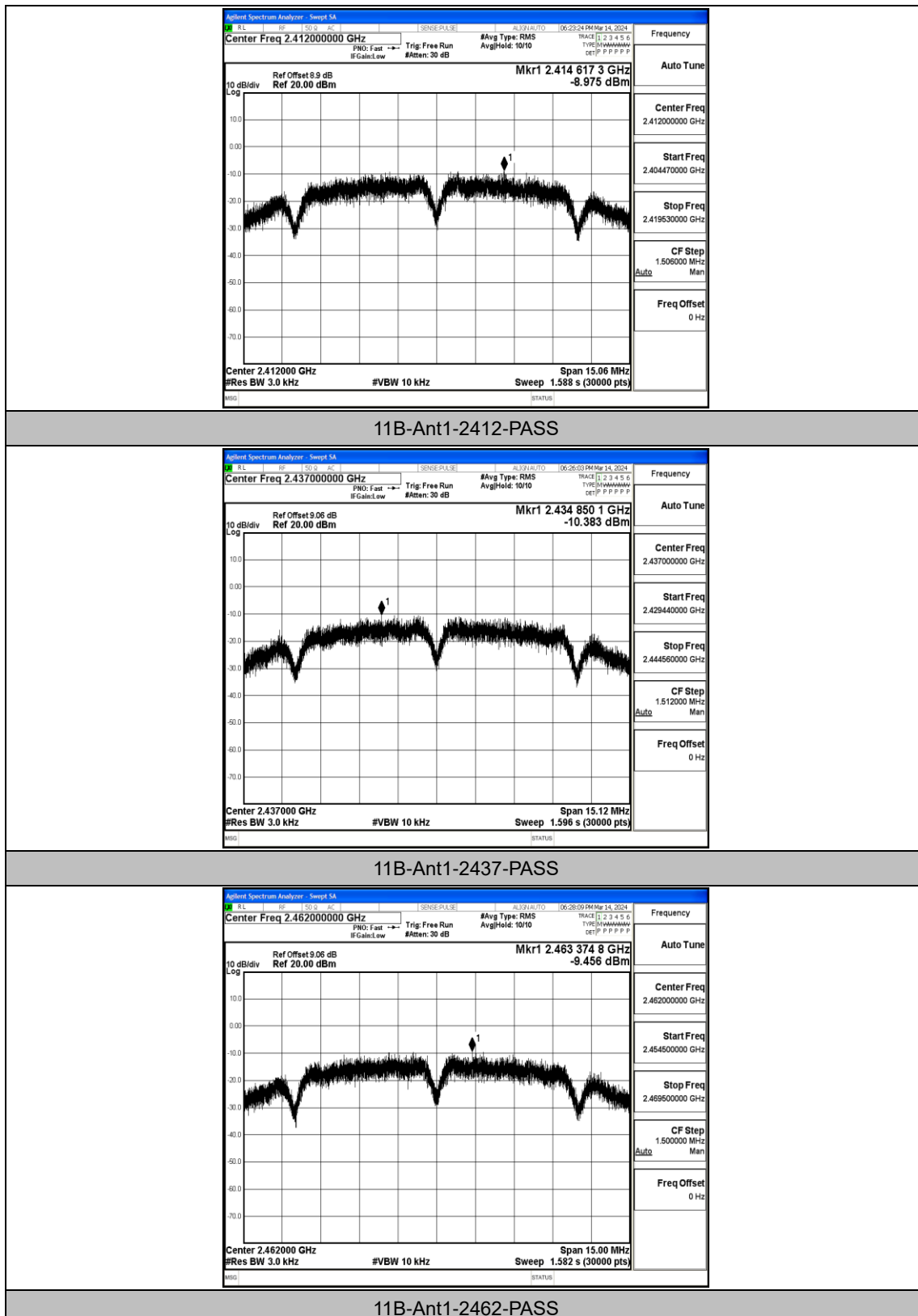
Test Mode	Antenna	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	17.22	≤30.00	PASS
11B	Ant1	2437	15.81	≤30.00	PASS
11B	Ant1	2462	16.47	≤30.00	PASS
11G	Ant1	2412	17.07	≤30.00	PASS
11G	Ant1	2437	16.68	≤30.00	PASS
11G	Ant1	2462	16.78	≤30.00	PASS
11N20SISO	Ant1	2412	16.56	≤30.00	PASS
11N20SISO	Ant1	2437	16.27	≤30.00	PASS
11N20SISO	Ant1	2462	16.09	≤30.00	PASS
11N40SISO	Ant1	2422	17.19	≤30.00	PASS
11N40SISO	Ant1	2437	16.80	≤30.00	PASS
11N40SISO	Ant1	2452	16.33	≤30.00	PASS

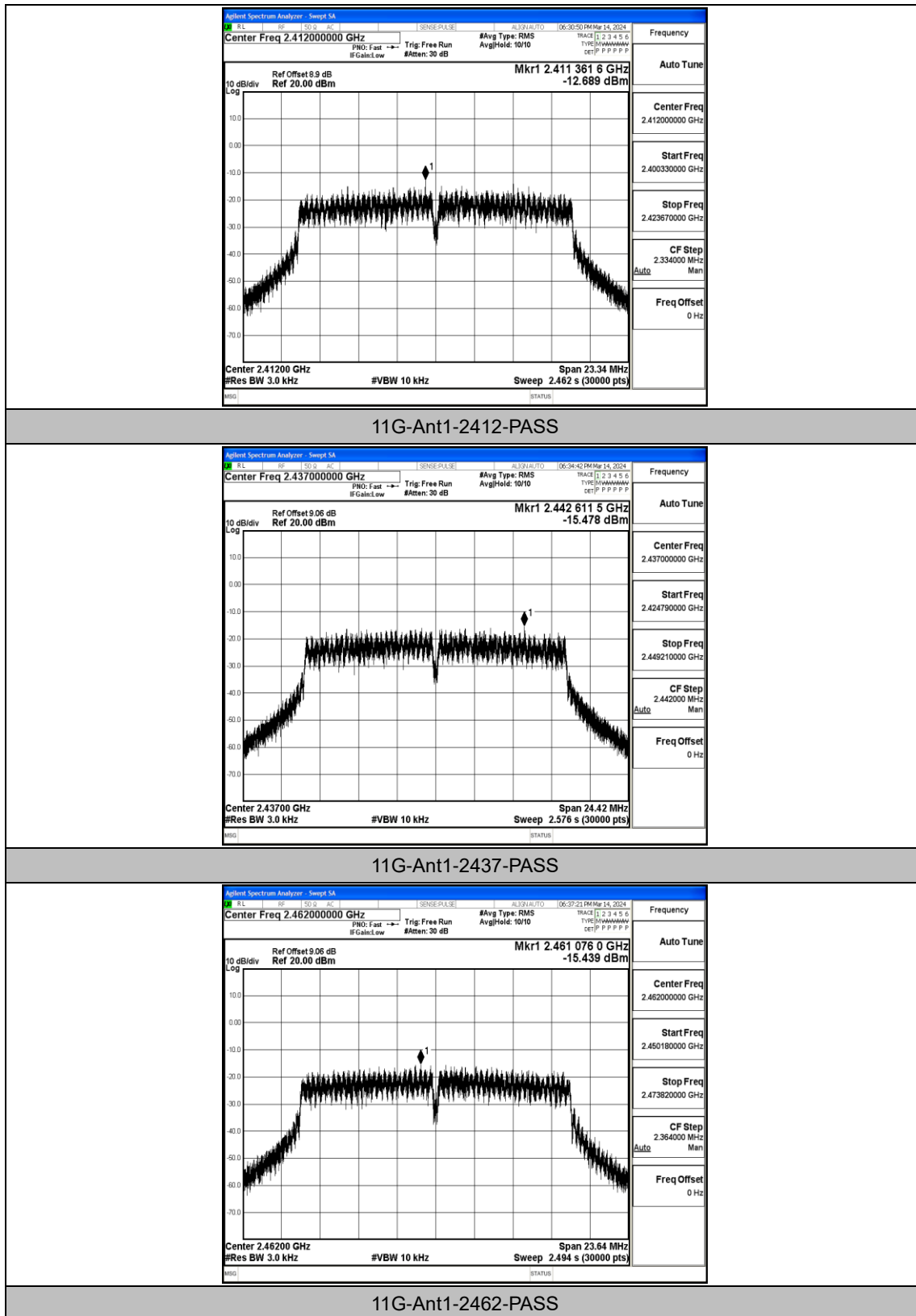
Appendix D: Maximum Peak power spectral density

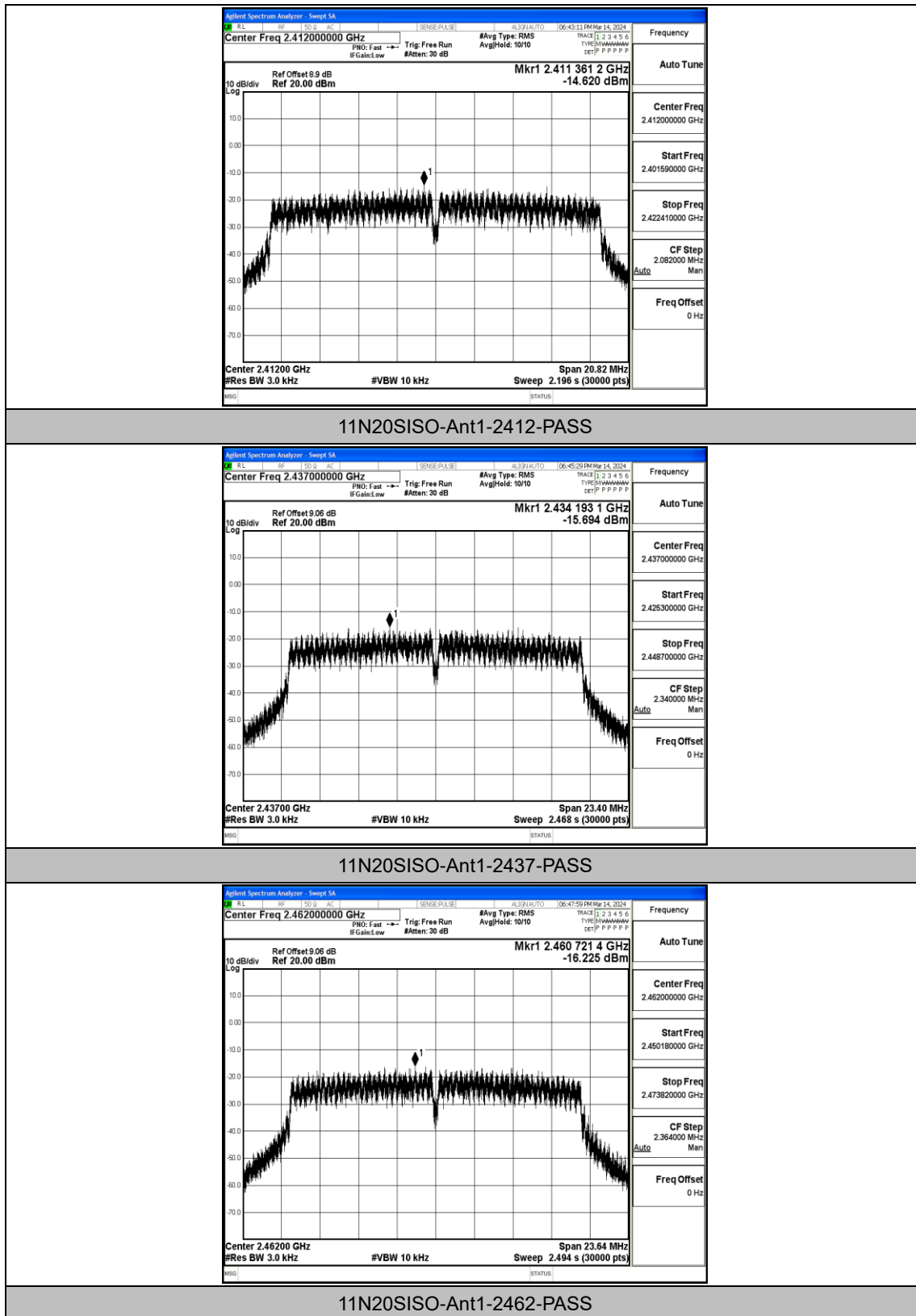
Test Result

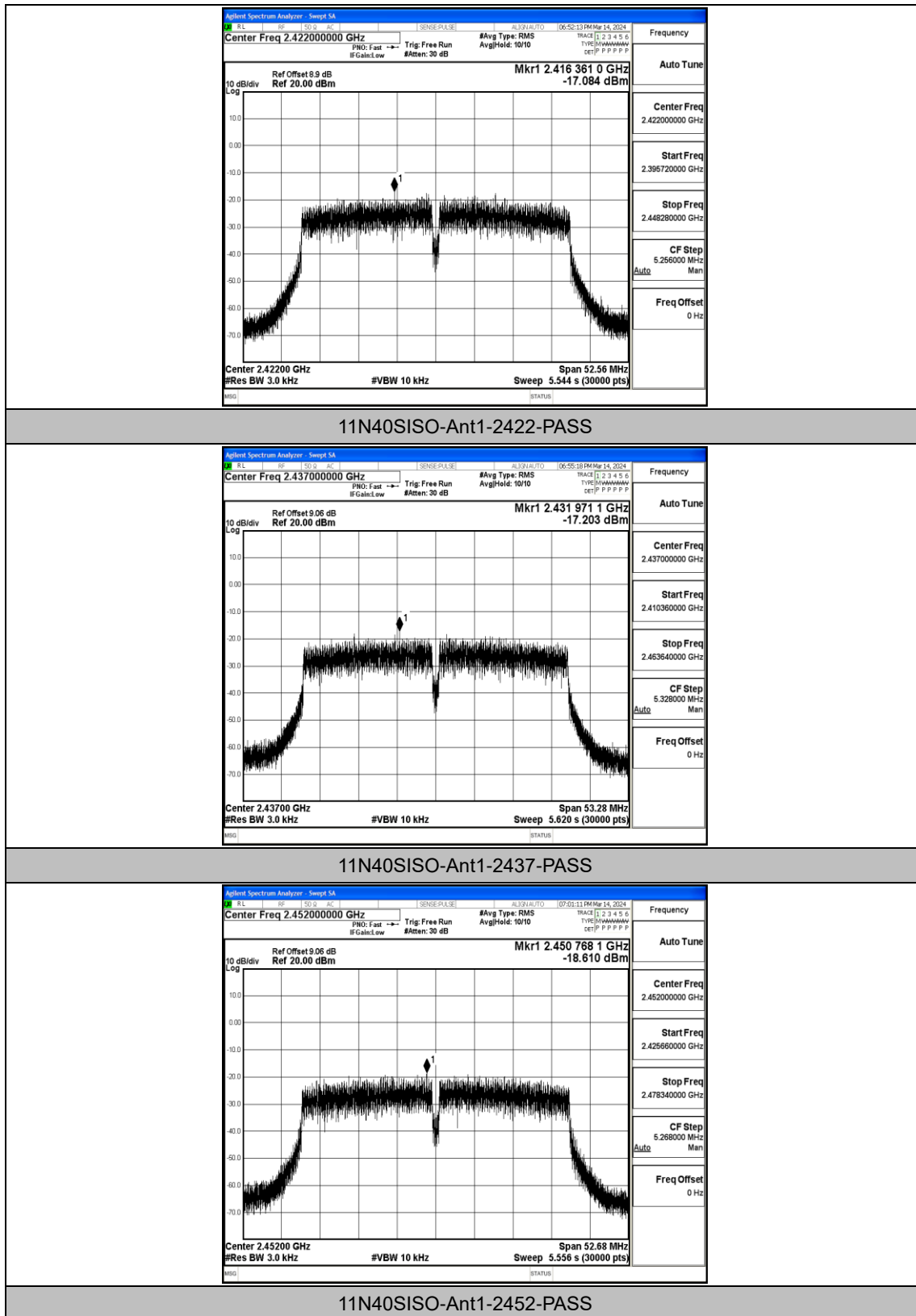
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.98	≤8.00	PASS
11B	Ant1	2437	-10.38	≤8.00	PASS
11B	Ant1	2462	-9.46	≤8.00	PASS
11G	Ant1	2412	-12.69	≤8.00	PASS
11G	Ant1	2437	-15.48	≤8.00	PASS
11G	Ant1	2462	-15.44	≤8.00	PASS
11N20SISO	Ant1	2412	-14.62	≤8.00	PASS
11N20SISO	Ant1	2437	-15.69	≤8.00	PASS
11N20SISO	Ant1	2462	-16.23	≤8.00	PASS
11N40SISO	Ant1	2422	-17.08	≤8.00	PASS
11N40SISO	Ant1	2437	-17.20	≤8.00	PASS
11N40SISO	Ant1	2452	-18.61	≤8.00	PASS

Test Graphs







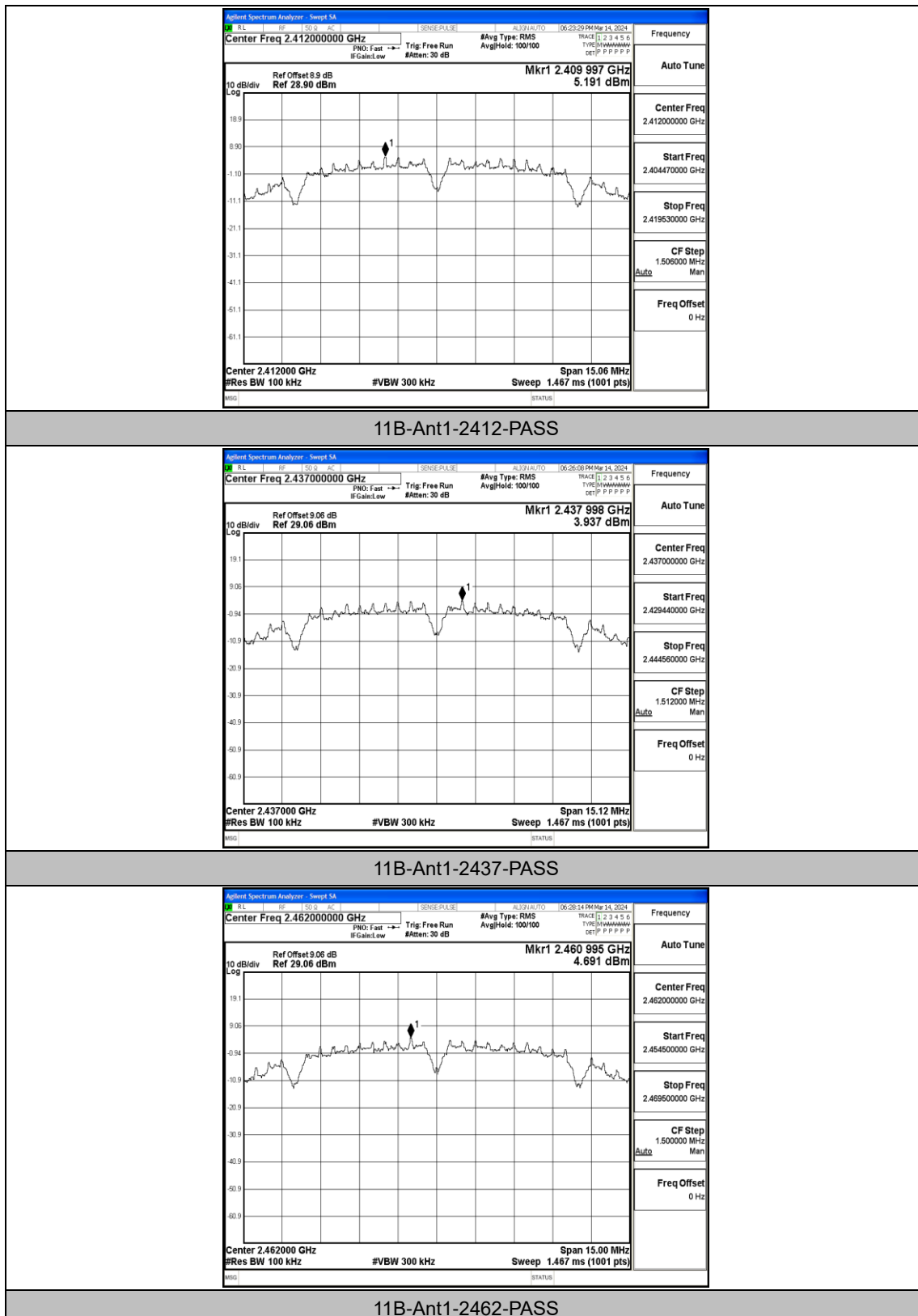


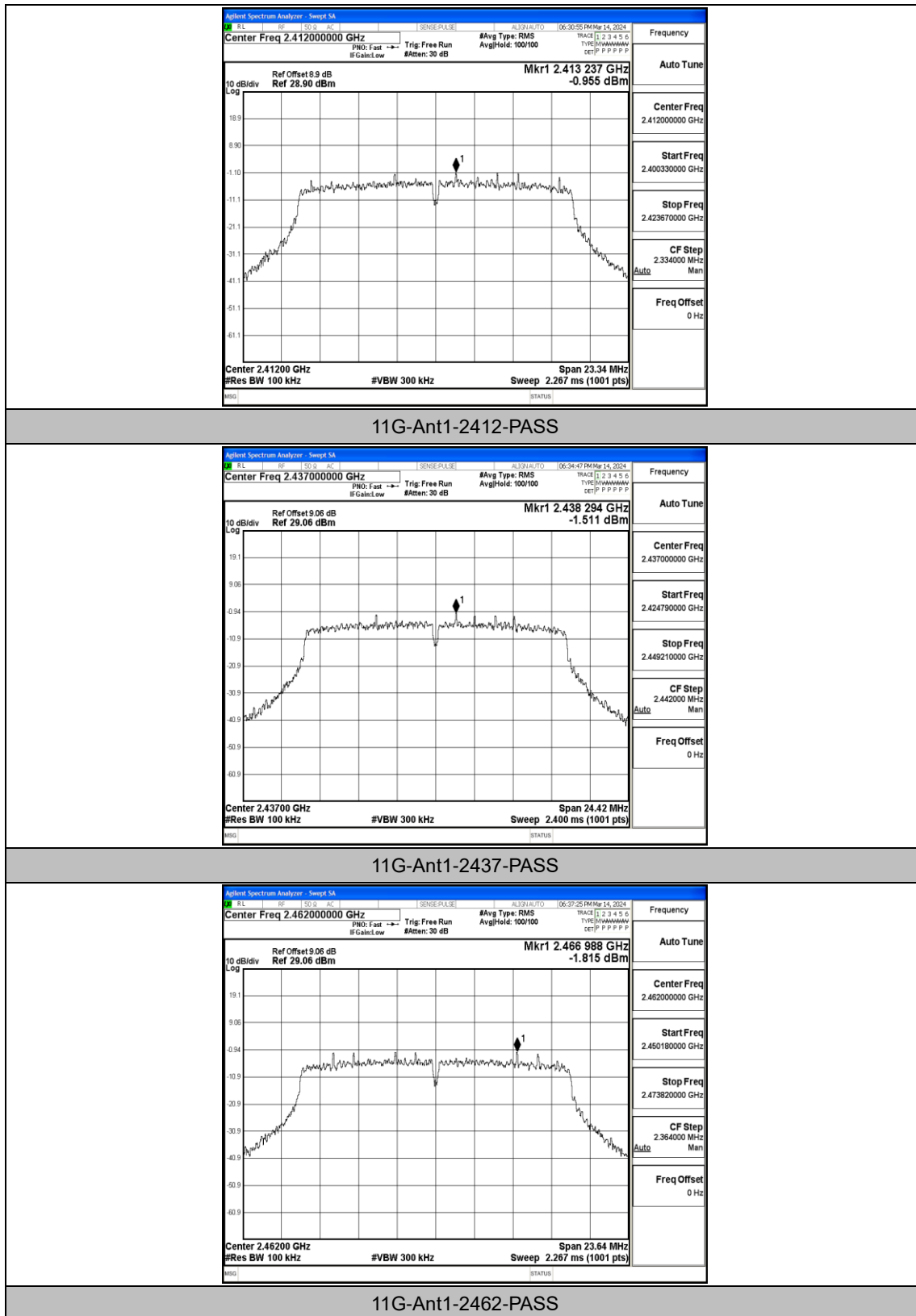
Appendix E: Reference level measurement

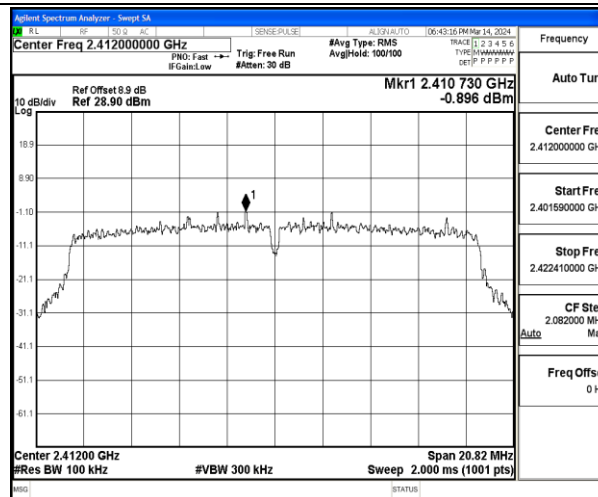
Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
11B	Ant1	2412	2410.00	5.19
11B	Ant1	2437	2438.00	3.94
11B	Ant1	2462	2461.00	4.69
11G	Ant1	2412	2413.24	-0.96
11G	Ant1	2437	2438.29	-1.51
11G	Ant1	2462	2466.99	-1.82
11N20SISO	Ant1	2412	2410.73	-0.90
11N20SISO	Ant1	2437	2435.71	-2.28
11N20SISO	Ant1	2462	2464.51	-1.58
11N40SISO	Ant1	2422	2425.73	-3.44
11N40SISO	Ant1	2437	2431.99	-4.08
11N40SISO	Ant1	2452	2454.53	-4.28

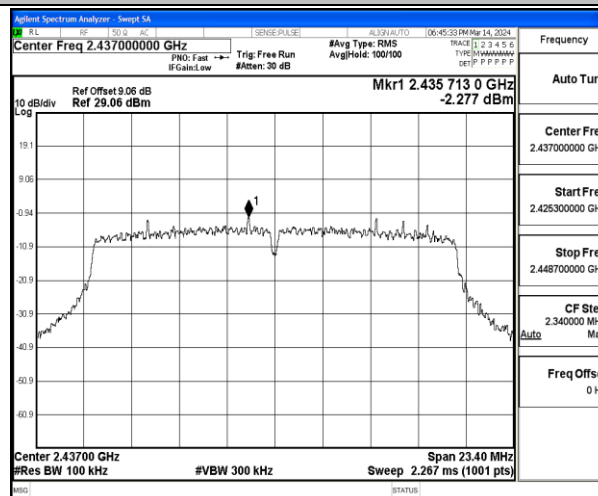
Test Graphs



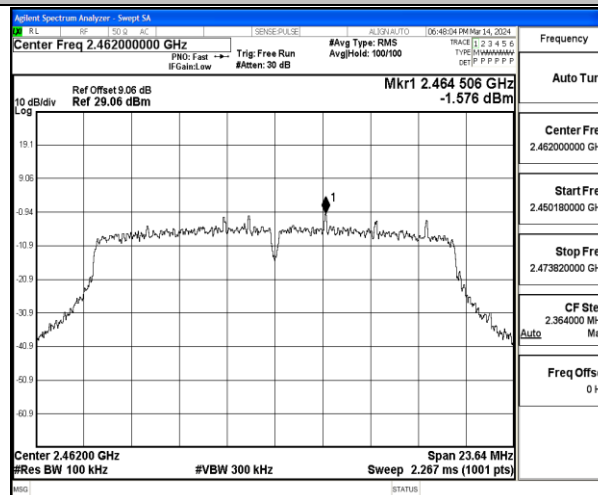




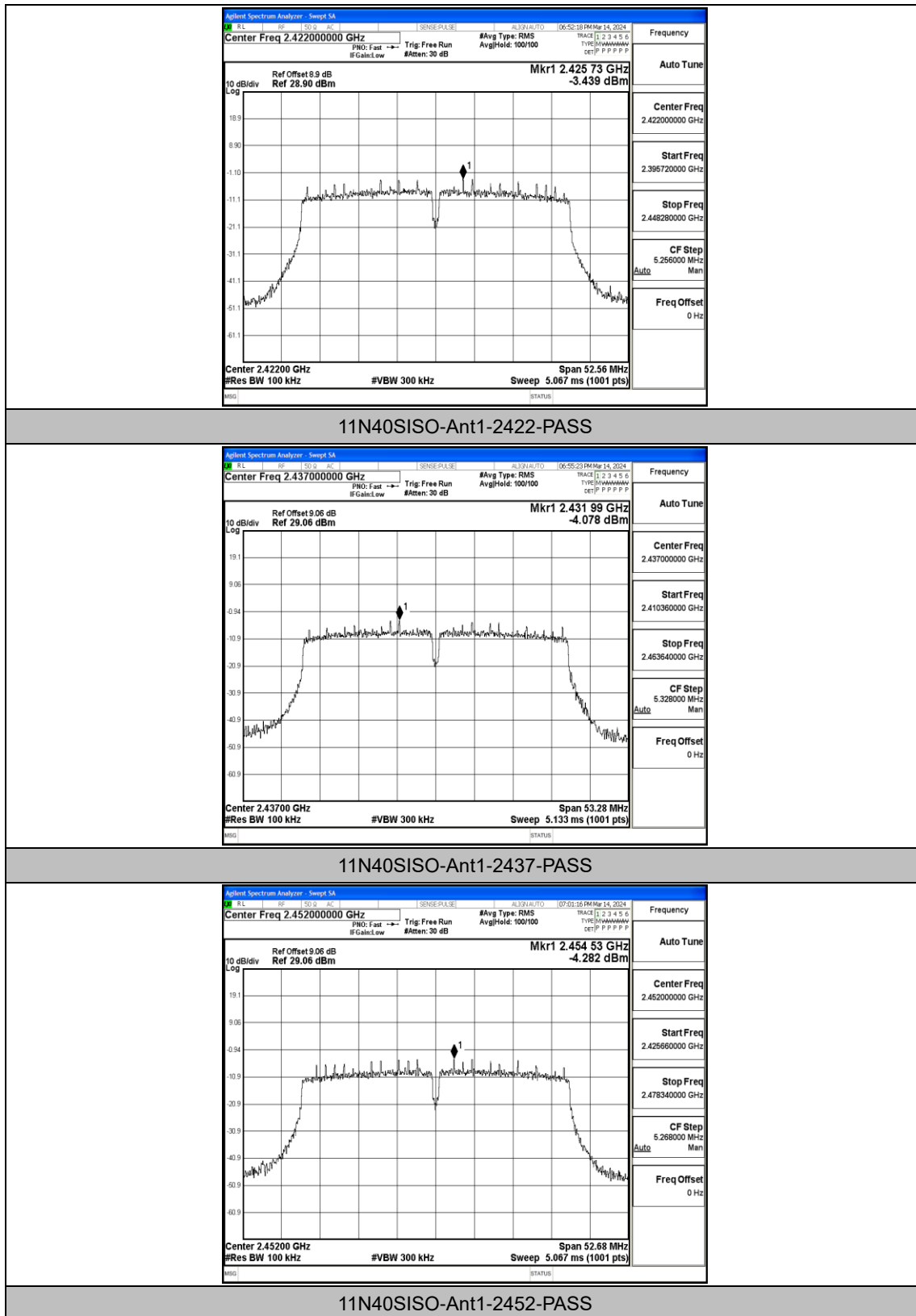
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS

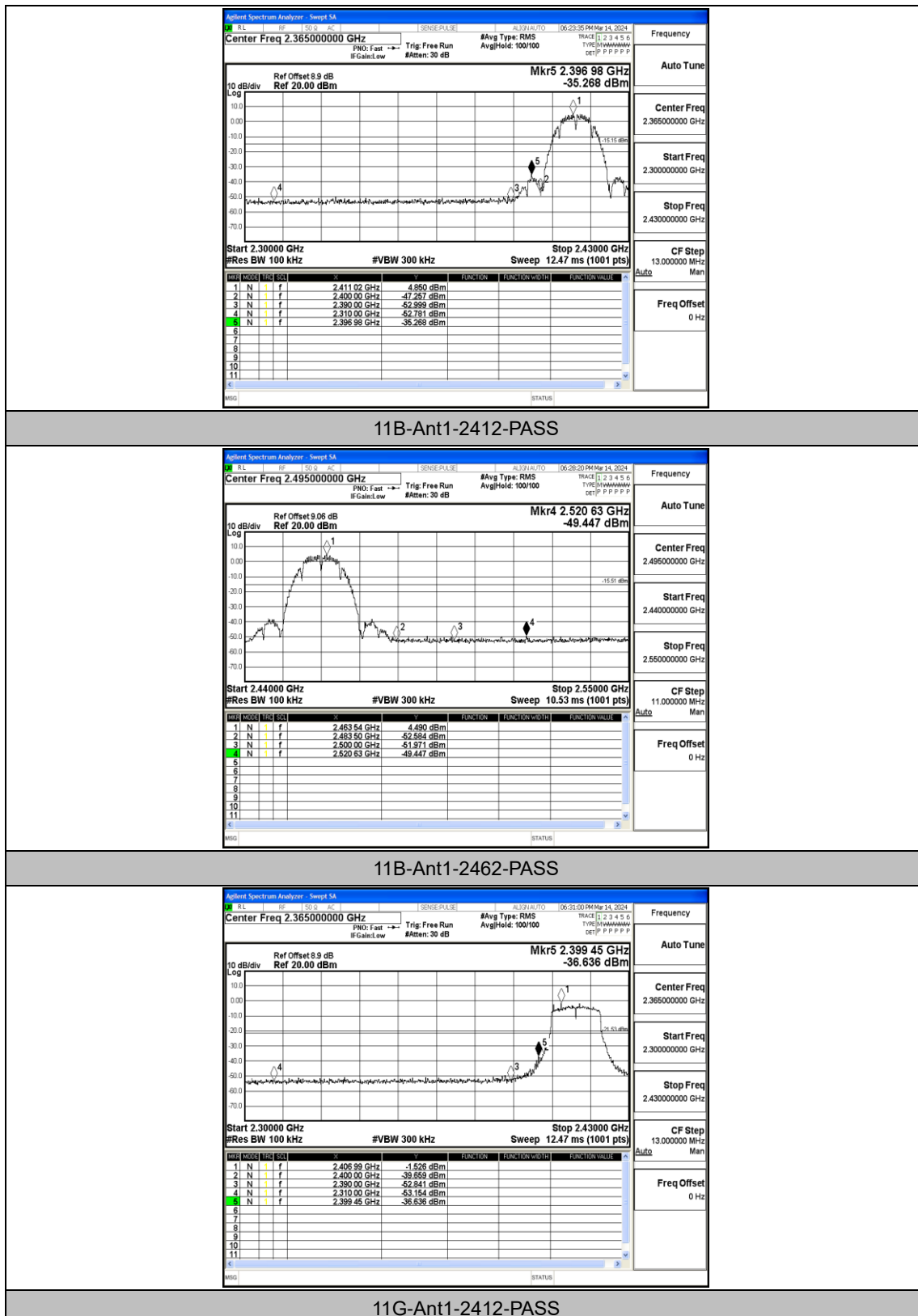


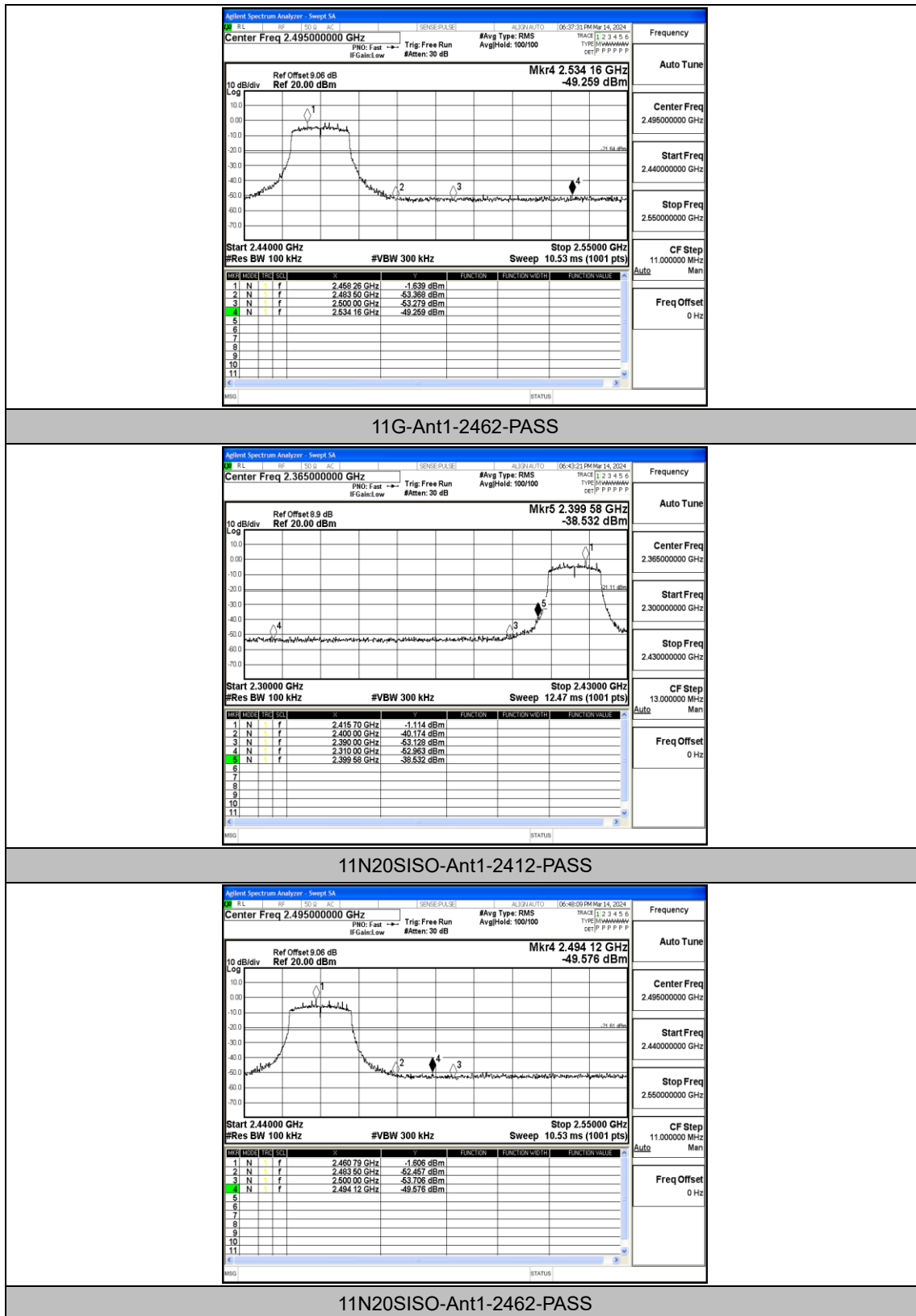
Appendix F: Band edge measurements

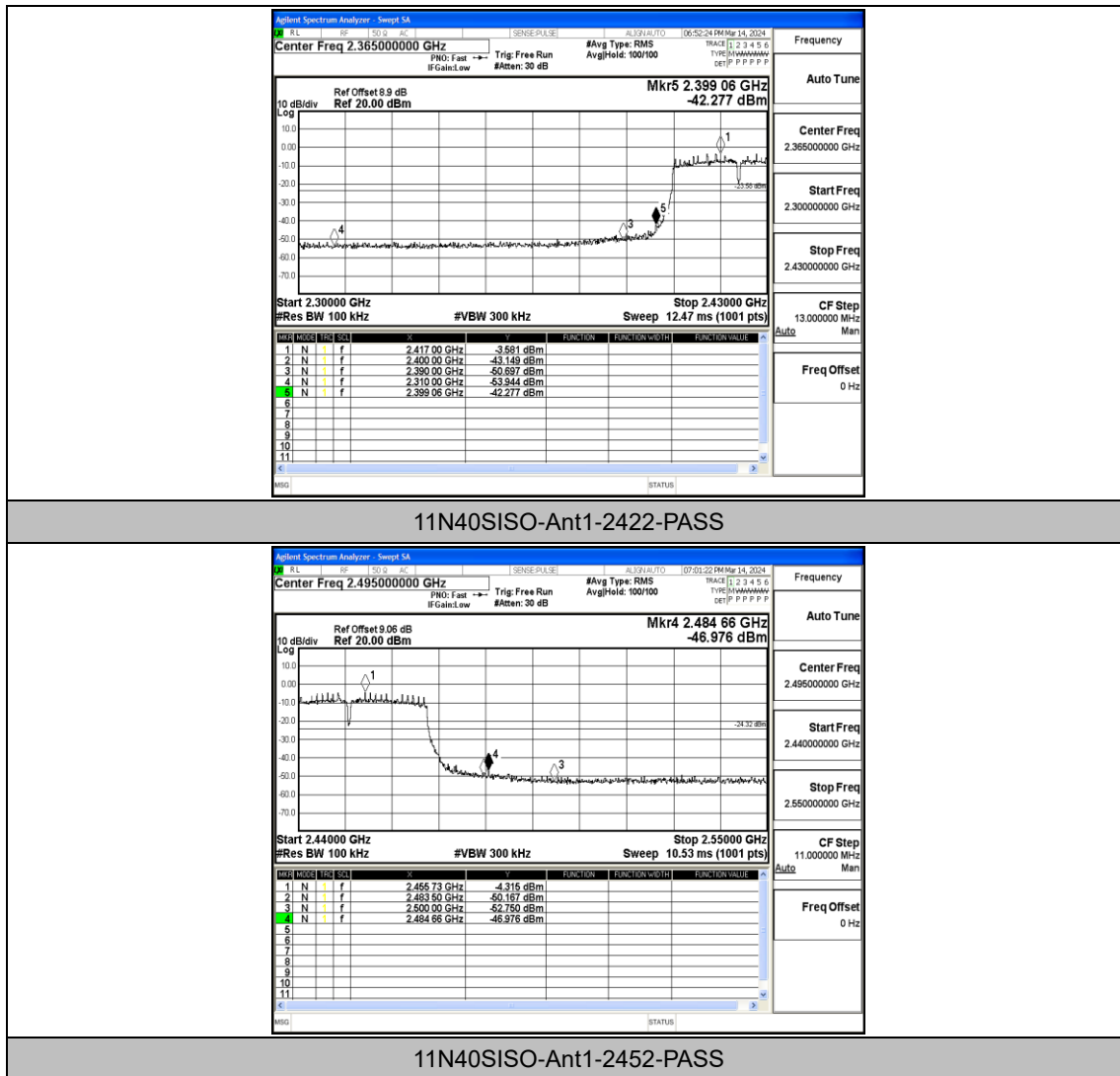
Test Result

TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.85	-35.27	≤-15.15	PASS
11B	Ant1	High	2462	4.49	-49.45	≤-15.51	PASS
11G	Ant1	Low	2412	-1.53	-36.64	≤-21.53	PASS
11G	Ant1	High	2462	-1.64	-49.26	≤-21.64	PASS
11N20SISO	Ant1	Low	2412	-1.11	-38.53	≤-21.11	PASS
11N20SISO	Ant1	High	2462	-1.61	-49.58	≤-21.61	PASS
11N40SISO	Ant1	Low	2422	-3.58	-42.28	≤-23.58	PASS
11N40SISO	Ant1	High	2452	-4.32	-46.98	≤-24.32	PASS

Test Graphs







Appendix G: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	5.19	-62.31	≤-14.81	PASS
11B	Ant1	2412	1000~26500	5.19	-50.27	≤-14.81	PASS
11B	Ant1	2437	30~1000	3.94	-62.83	≤-16.06	PASS
11B	Ant1	2437	1000~26500	3.94	-46.84	≤-16.06	PASS
11B	Ant1	2462	30~1000	4.69	-61.88	≤-15.31	PASS
11B	Ant1	2462	1000~26500	4.69	-50.47	≤-15.31	PASS
11G	Ant1	2412	30~1000	-0.96	-62.99	≤-20.96	PASS
11G	Ant1	2412	1000~26500	-0.96	-50.85	≤-20.96	PASS
11G	Ant1	2437	30~1000	-1.51	-62.64	≤-21.51	PASS
11G	Ant1	2437	1000~26500	-1.51	-50.21	≤-21.51	PASS
11G	Ant1	2462	30~1000	-1.82	-62.95	≤-21.82	PASS
11G	Ant1	2462	1000~26500	-1.82	-50.7	≤-21.82	PASS
11N20SISO	Ant1	2412	30~1000	-0.90	-63.44	≤-20.9	PASS
11N20SISO	Ant1	2412	1000~26500	-0.90	-50.13	≤-20.9	PASS
11N20SISO	Ant1	2437	30~1000	-2.28	-61.52	≤-22.28	PASS
11N20SISO	Ant1	2437	1000~26500	-2.28	-49.81	≤-22.28	PASS
11N20SISO	Ant1	2462	30~1000	-1.58	-63.03	≤-21.58	PASS
11N20SISO	Ant1	2462	1000~26500	-1.58	-49.94	≤-21.58	PASS
11N40SISO	Ant1	2422	30~1000	-3.44	-63.34	≤-23.44	PASS
11N40SISO	Ant1	2422	1000~26500	-3.44	-50.11	≤-23.44	PASS
11N40SISO	Ant1	2437	30~1000	-4.08	-62.57	≤-24.08	PASS
11N40SISO	Ant1	2437	1000~26500	-4.08	-50.33	≤-24.08	PASS
11N40SISO	Ant1	2452	30~1000	-4.28	-62.83	≤-24.28	PASS
11N40SISO	Ant1	2452	1000~26500	-4.28	-50.35	≤-24.28	PASS

Test Graphs

