

Appendix Test Data for WLAN(2. 4G) (Conducted Measurement)

Product Name: RC CAR

Trade Mark: suangrc

Test Model: LH-C093S

FCC ID: 2BOLWSA4103

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	8.120	2407.960	2416.080	0.5	PASS
11B	Ant1	2437	8.120	2432.960	2441.080	0.5	PASS
11B	Ant1	2462	8.120	2458.000	2466.120	0.5	PASS
11G	Ant1	2412	15.920	2404.080	2420.000	0.5	PASS
11G	Ant1	2437	16.160	2428.880	2445.040	0.5	PASS
11G	Ant1	2462	16.320	2453.880	2470.200	0.5	PASS
11N20SISO	Ant1	2412	15.920	2404.360	2420.280	0.5	PASS
11N20SISO	Ant1	2437	17.280	2428.320	2445.600	0.5	PASS
11N20SISO	Ant1	2462	17.280	2453.400	2470.680	0.5	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs





11B-Ant1-2462-PASS



11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



11N20SISO-Ant1-2462-PASS

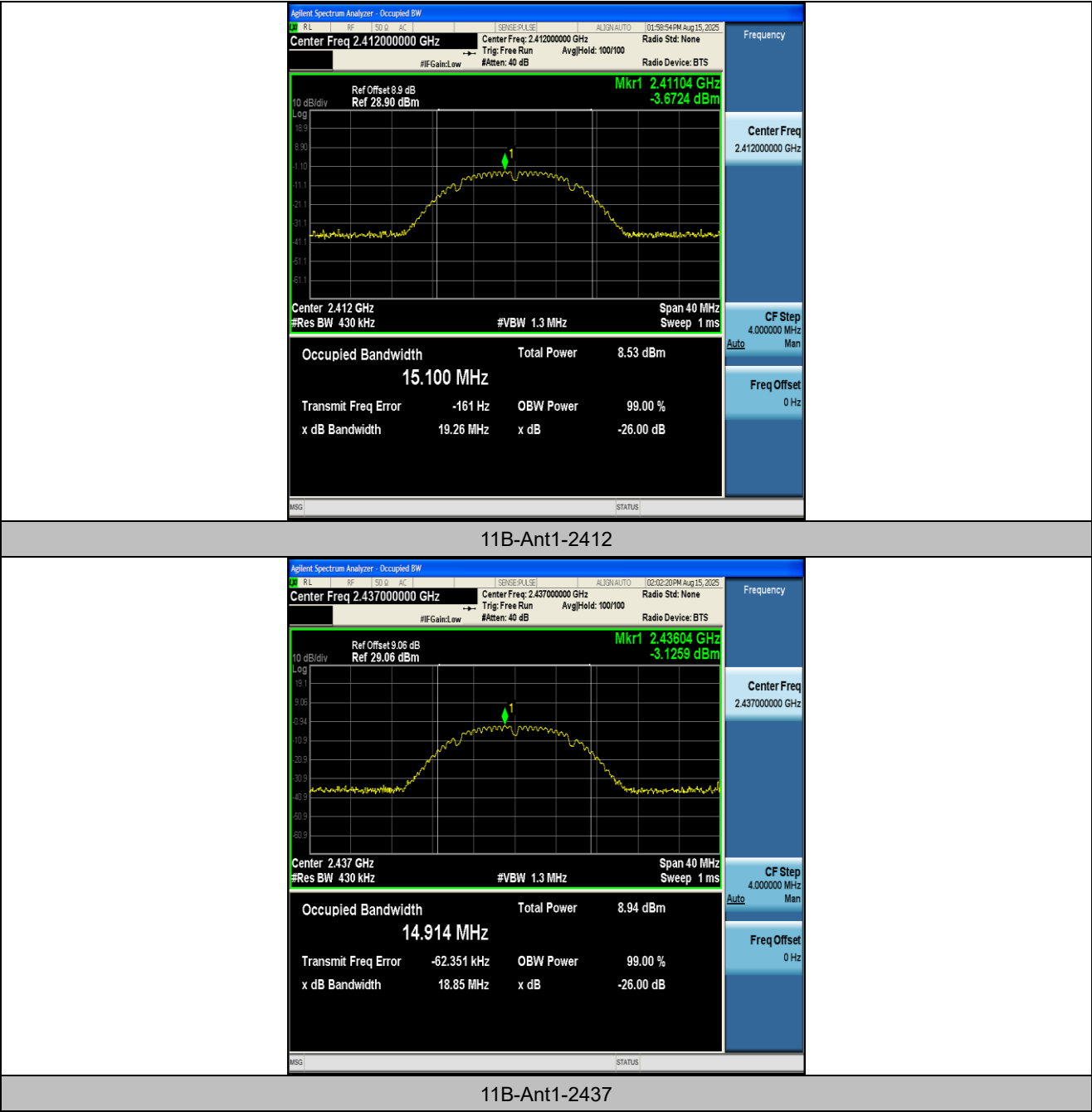
Appendix B: Occupied Channel Bandwidth

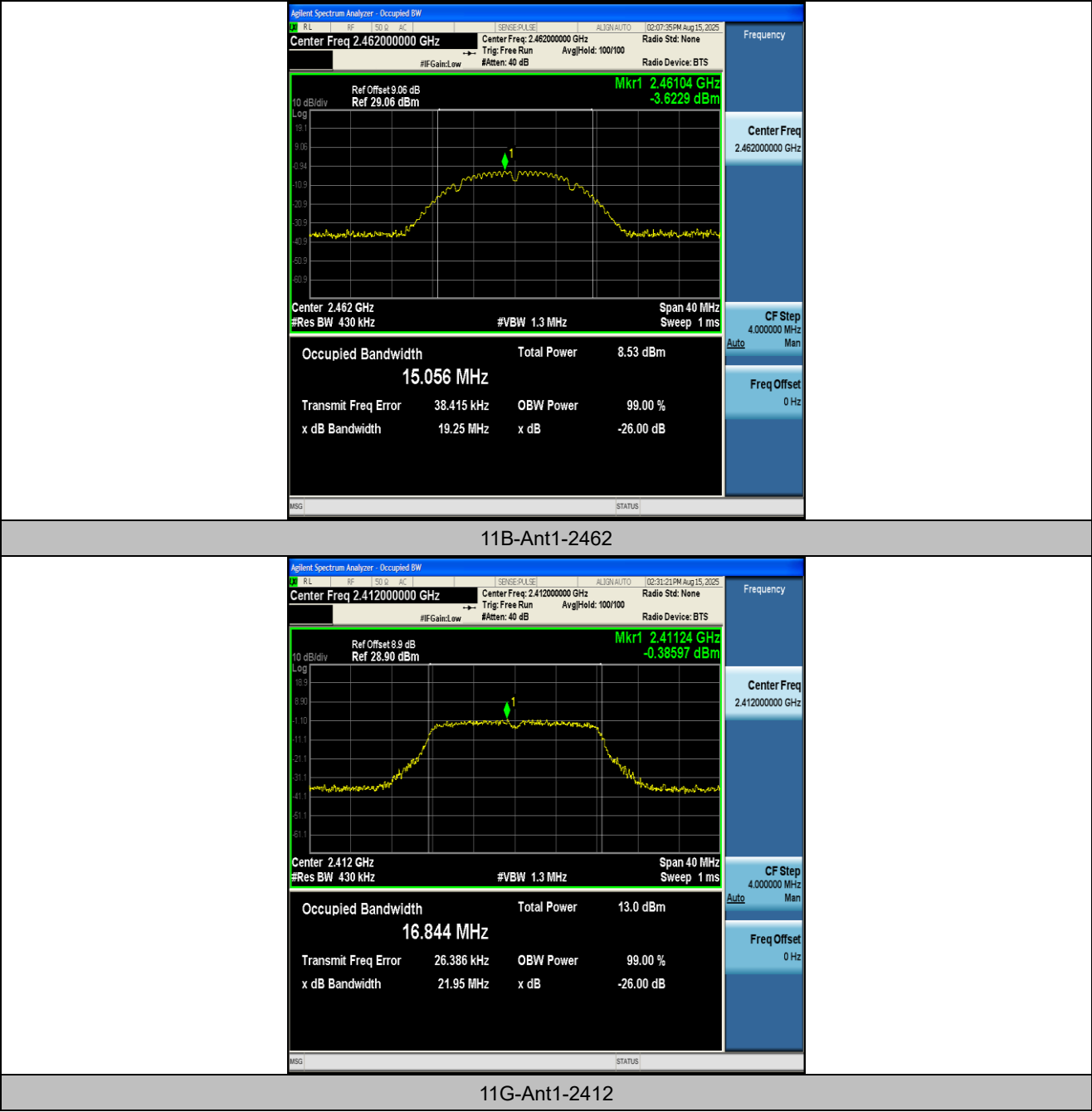
Test Result

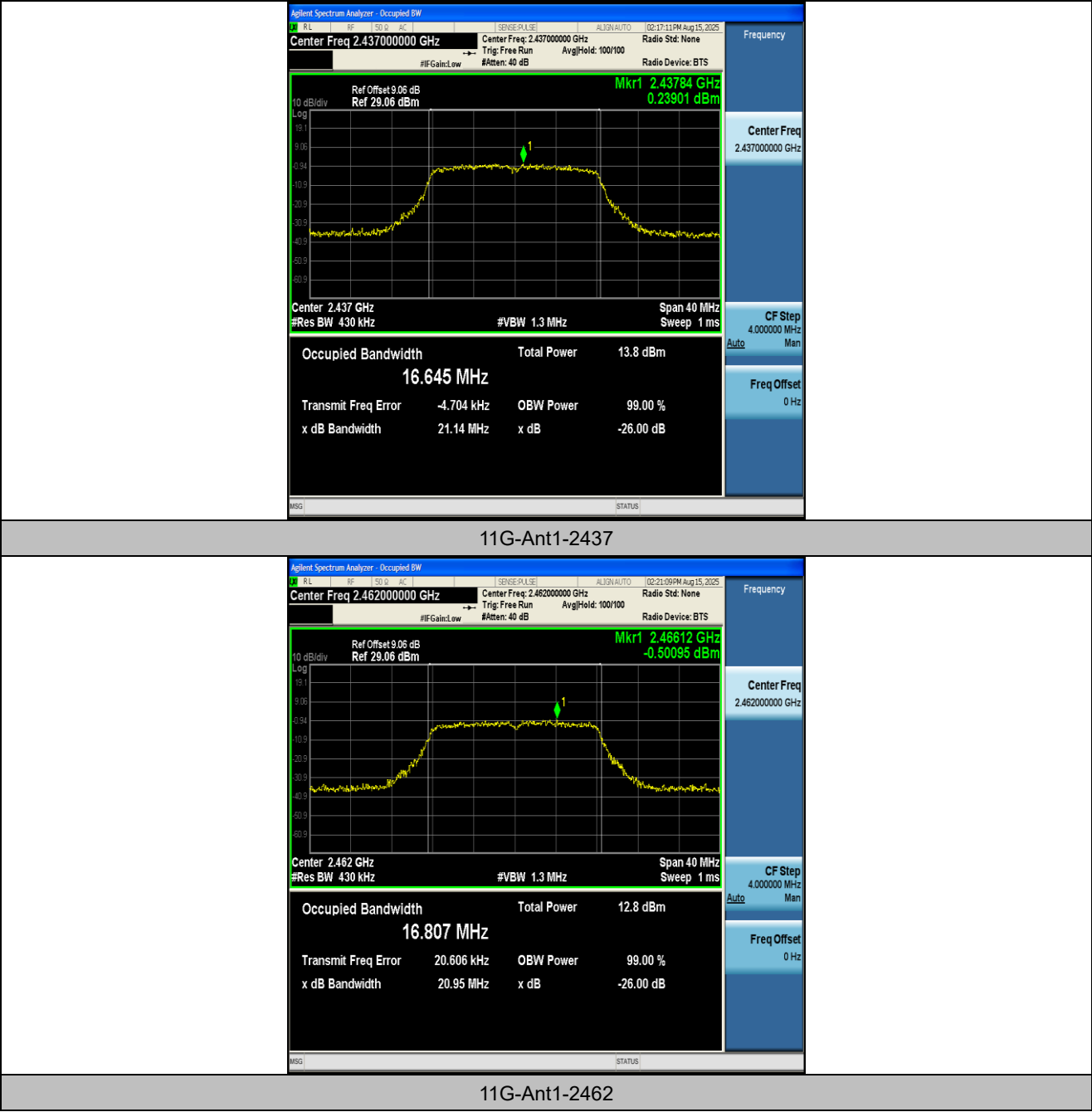
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	15.100	2404.4498	2419.5498	---	---
11B	Ant1	2437	14.914	2429.4807	2444.3947	---	---
11B	Ant1	2462	15.056	2454.5104	2469.5664	---	---
11G	Ant1	2412	16.844	2403.6044	2420.4484	---	---
11G	Ant1	2437	16.645	2428.6728	2445.3178	---	---
11G	Ant1	2462	16.807	2453.6171	2470.4241	---	---
11N20SISO	Ant1	2412	18.039	2402.9875	2421.0265	---	---
11N20SISO	Ant1	2437	17.781	2428.0950	2445.8760	---	---
11N20SISO	Ant1	2462	17.932	2453.0952	2471.0272	---	---

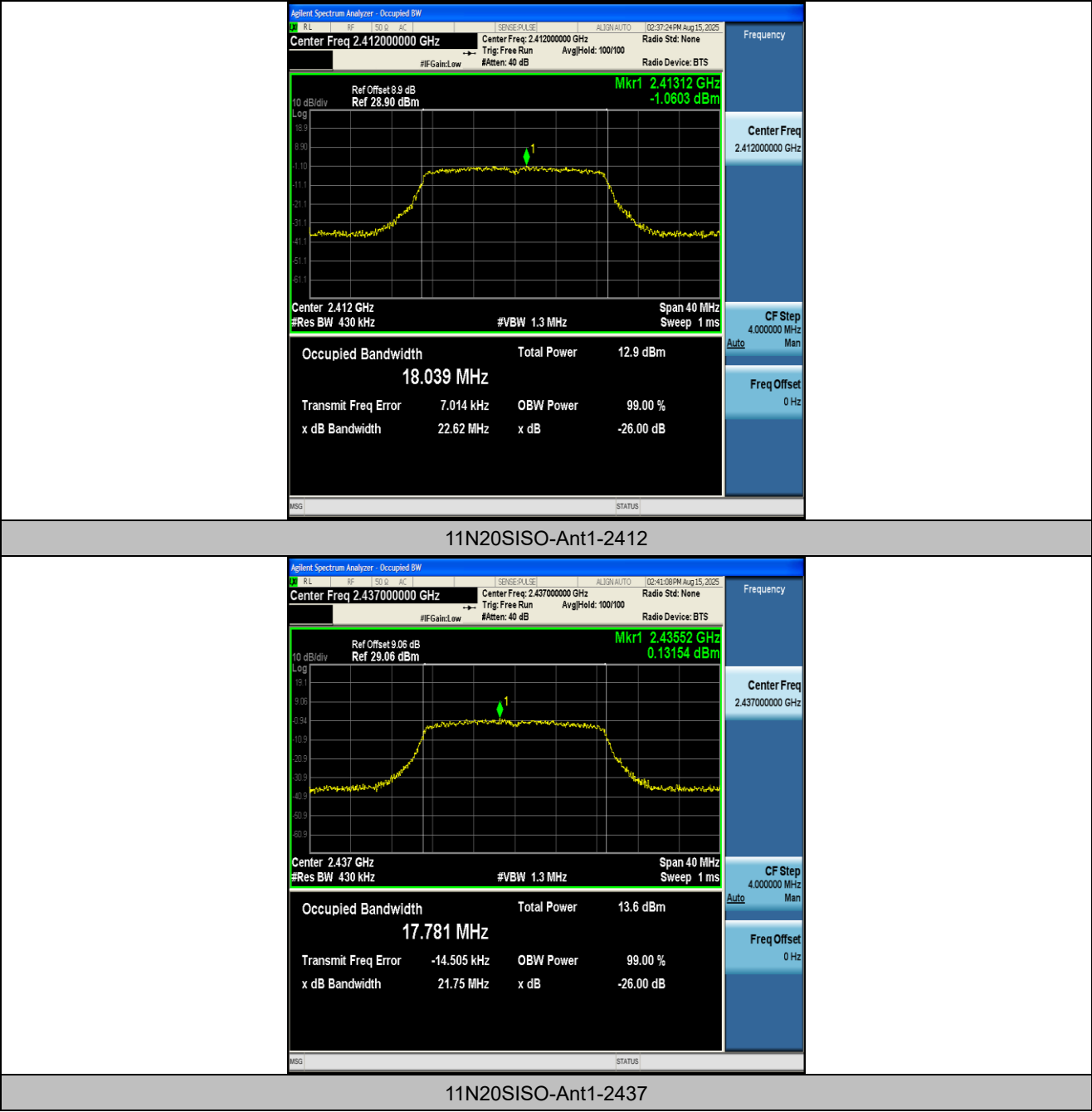
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

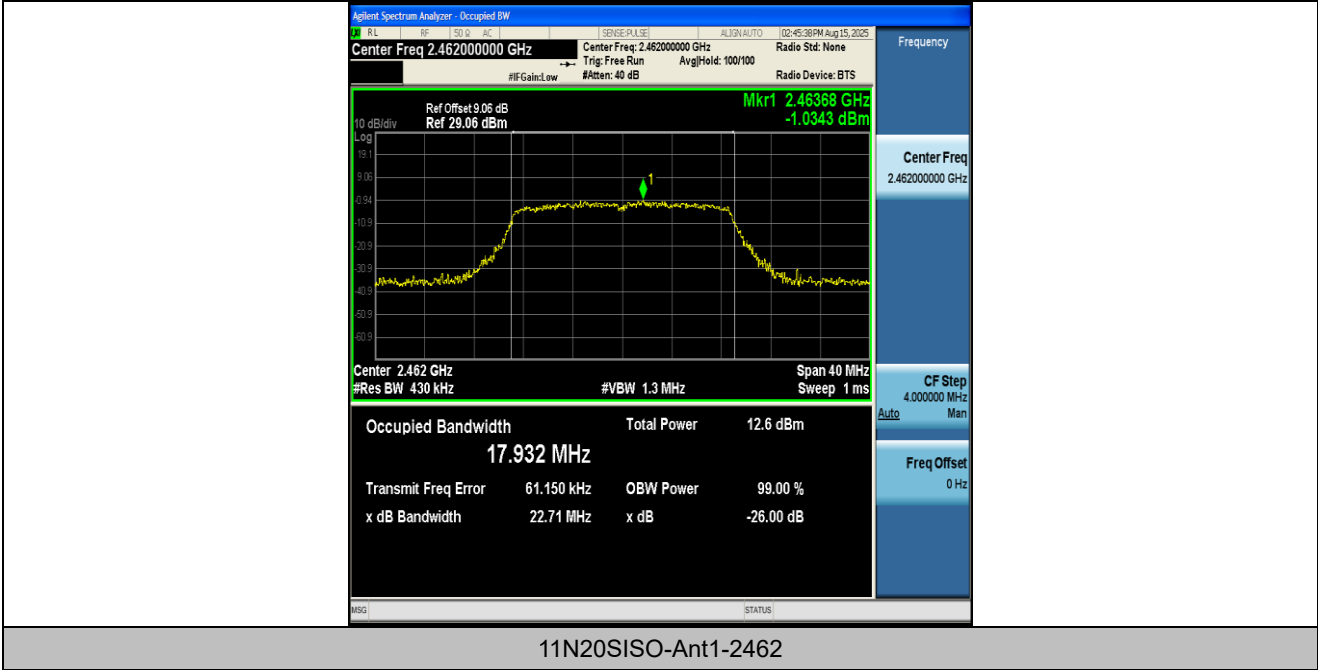
Test Graphs











Appendix C: Maximum Average conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	5.53	≤30.00	PASS
11B	Ant1	2437	5.97	≤30.00	PASS
11B	Ant1	2462	5.62	≤30.00	PASS
11G	Ant1	2412	7.32	≤30.00	PASS
11G	Ant1	2437	7.86	≤30.00	PASS
11G	Ant1	2462	6.88	≤30.00	PASS
11N20SISO	Ant1	2412	7.24	≤30.00	PASS
11N20SISO	Ant1	2437	7.74	≤30.00	PASS
11N20SISO	Ant1	2462	6.80	≤30.00	PASS

Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

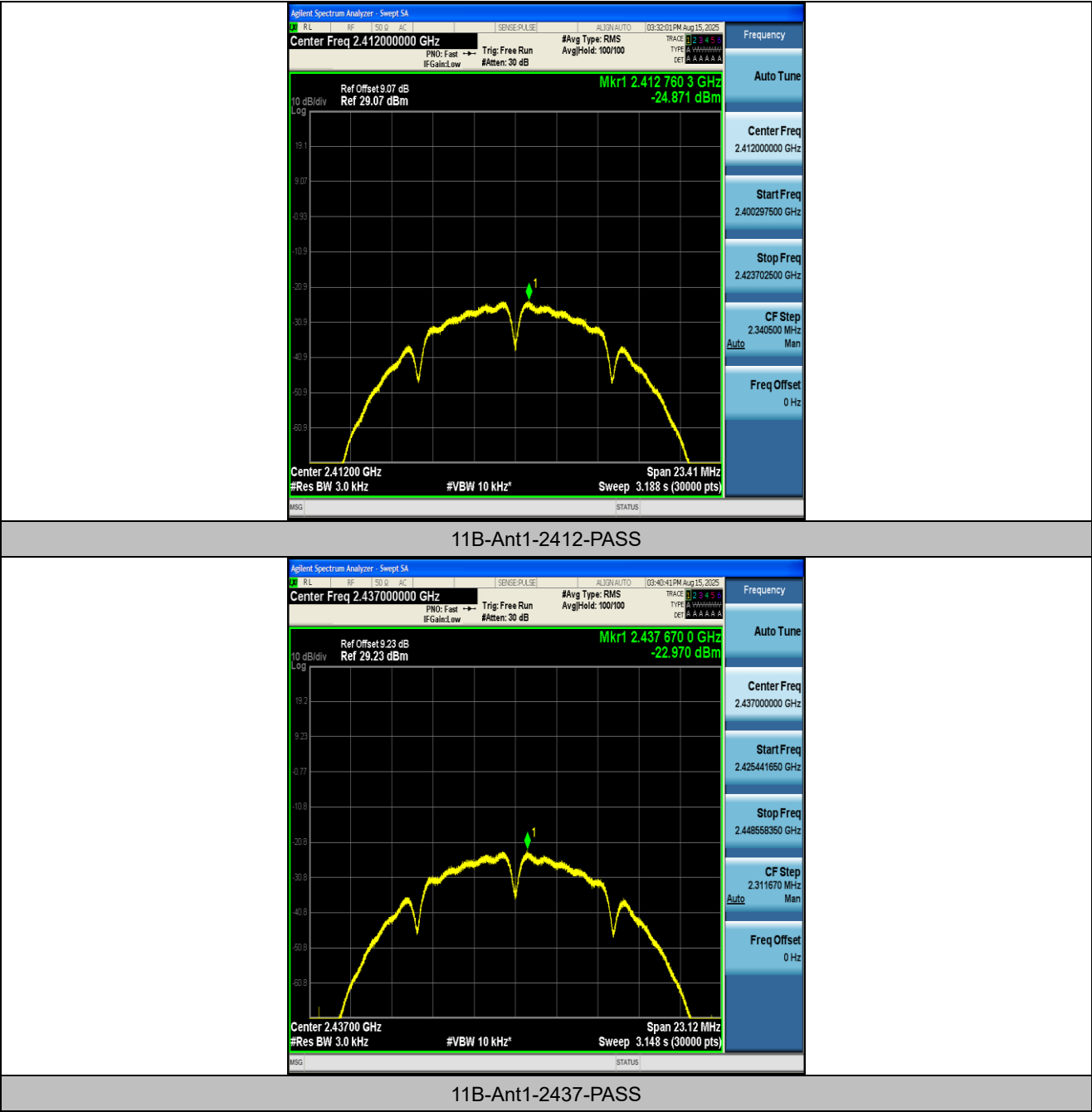
Appendix D: Maximum Average power spectral density

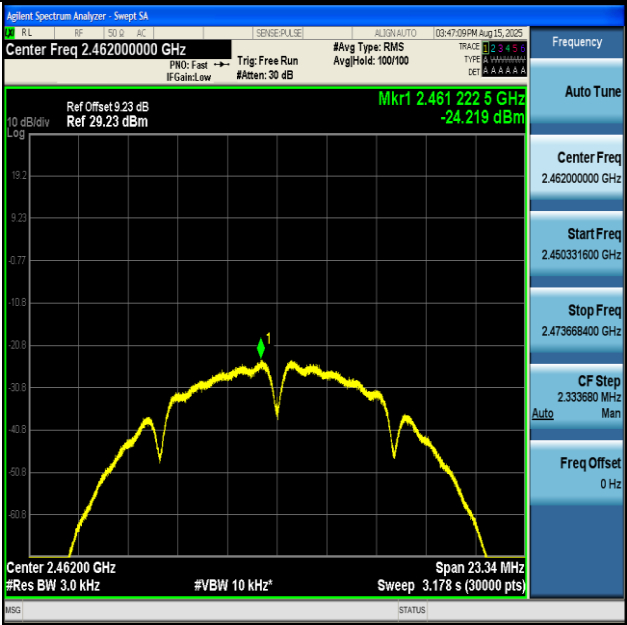
Test Result

Test Mode	Antenna	Frequency [MHz]	Raw. Data [dBm/3-100kHz]	Dc. Factor	Result [dBm/3-100kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-25.04	0.17	-24.87	≤8.00	PASS
11B	Ant1	2437	-23.14	0.17	-22.97	≤8.00	PASS
11B	Ant1	2462	-24.39	0.17	-24.22	≤8.00	PASS
11G	Ant1	2412	-27.16	0.41	-26.75	≤8.00	PASS
11G	Ant1	2437	-25.99	0.41	-25.58	≤8.00	PASS
11G	Ant1	2462	-27.26	0.41	-26.85	≤8.00	PASS
11N20SISO	Ant1	2412	-27.09	0.51	-26.58	≤8.00	PASS
11N20SISO	Ant1	2437	-26.09	0.51	-25.58	≤8.00	PASS
11N20SISO	Ant1	2462	-27.48	0.51	-26.97	≤8.00	PASS

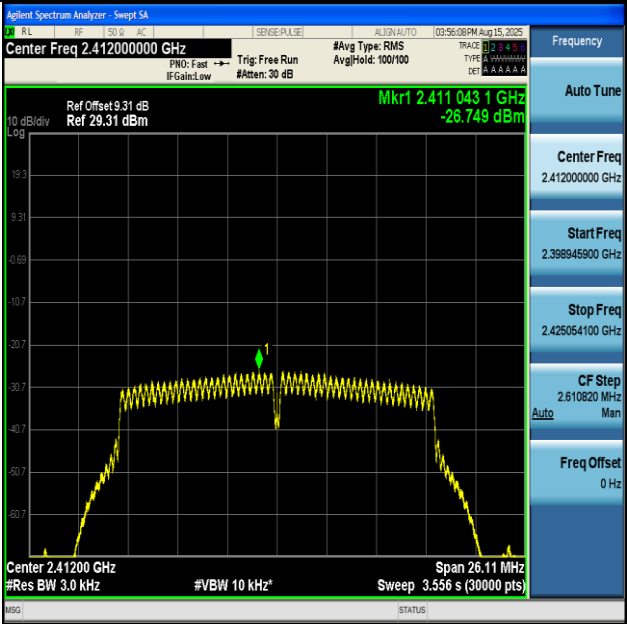
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

Test Graphs

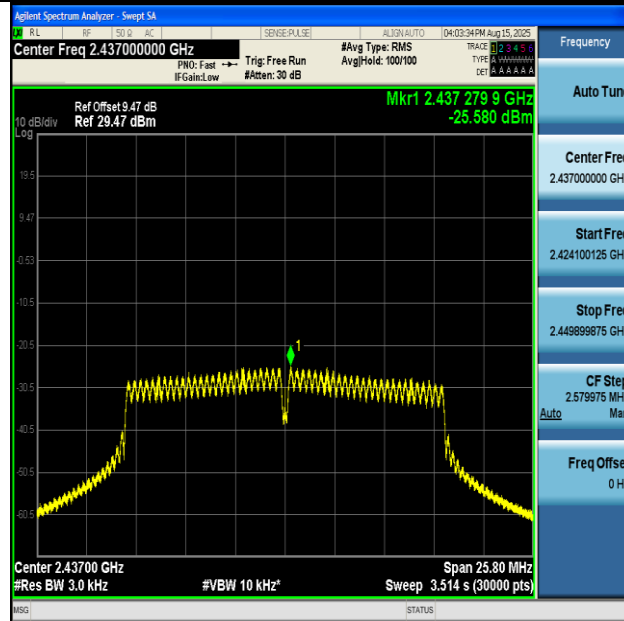




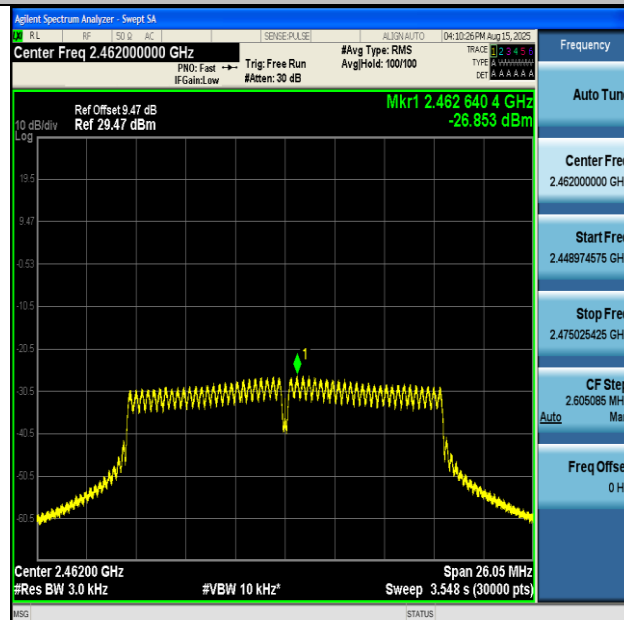
11B-Ant1-2462-PASS



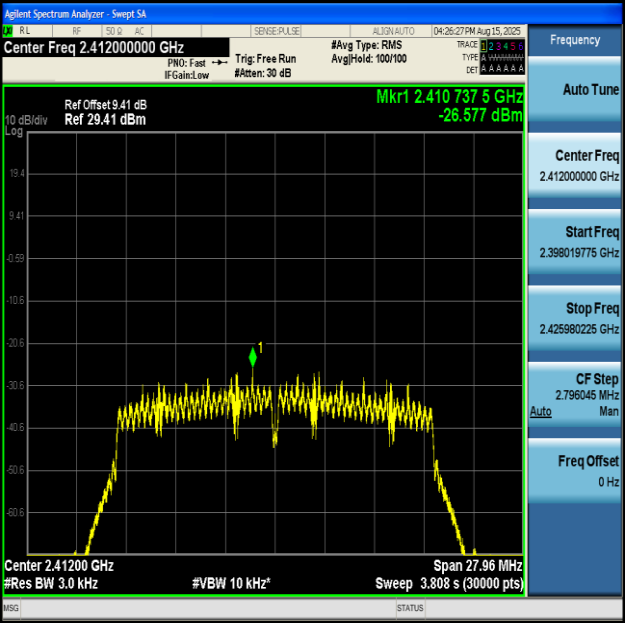
11G-Ant1-2412-PASS



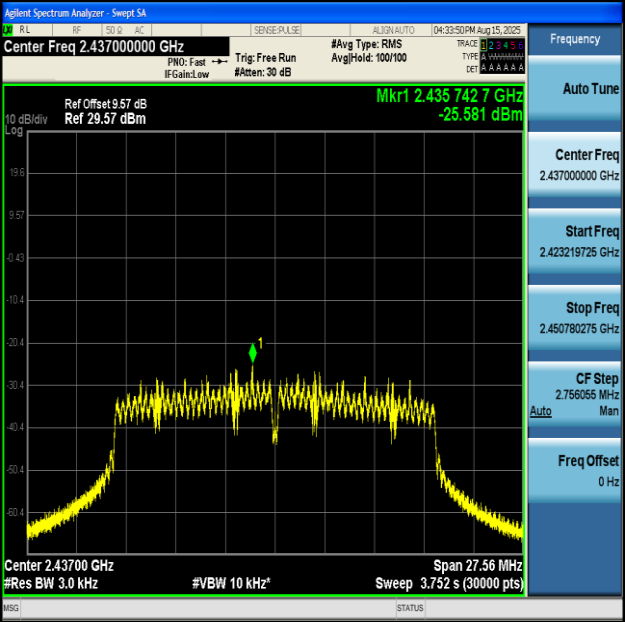
11G-Ant1-2437-PASS



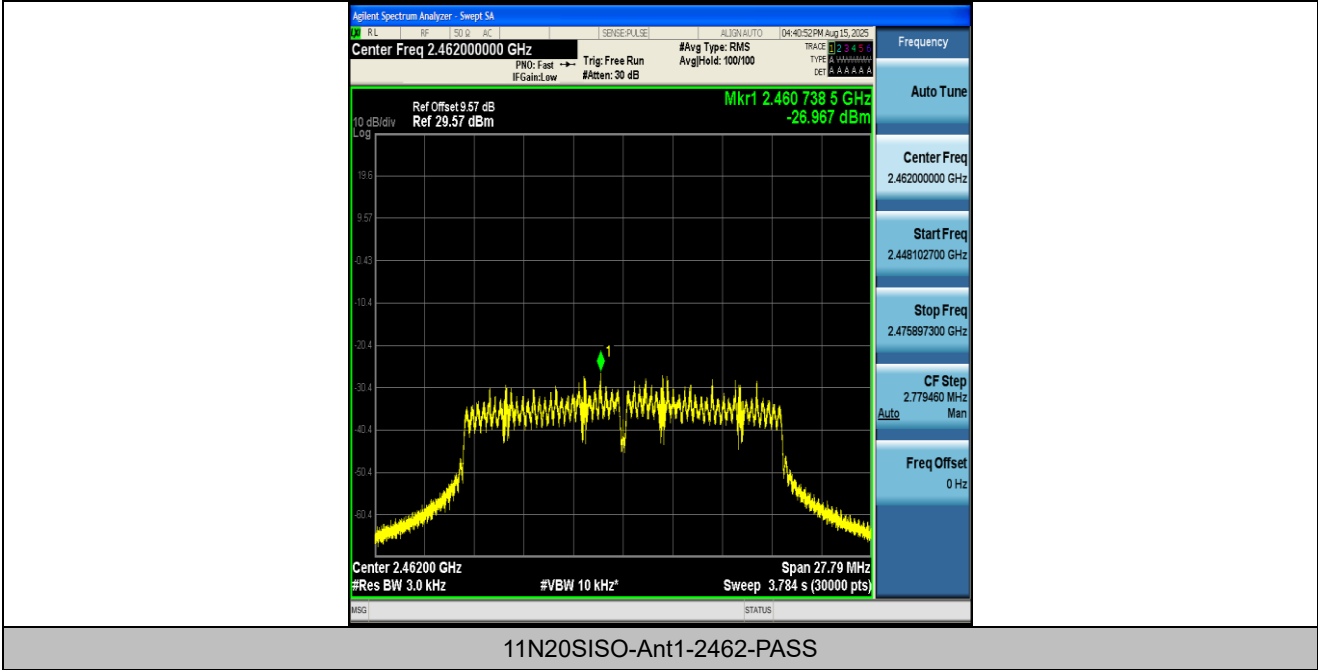
11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



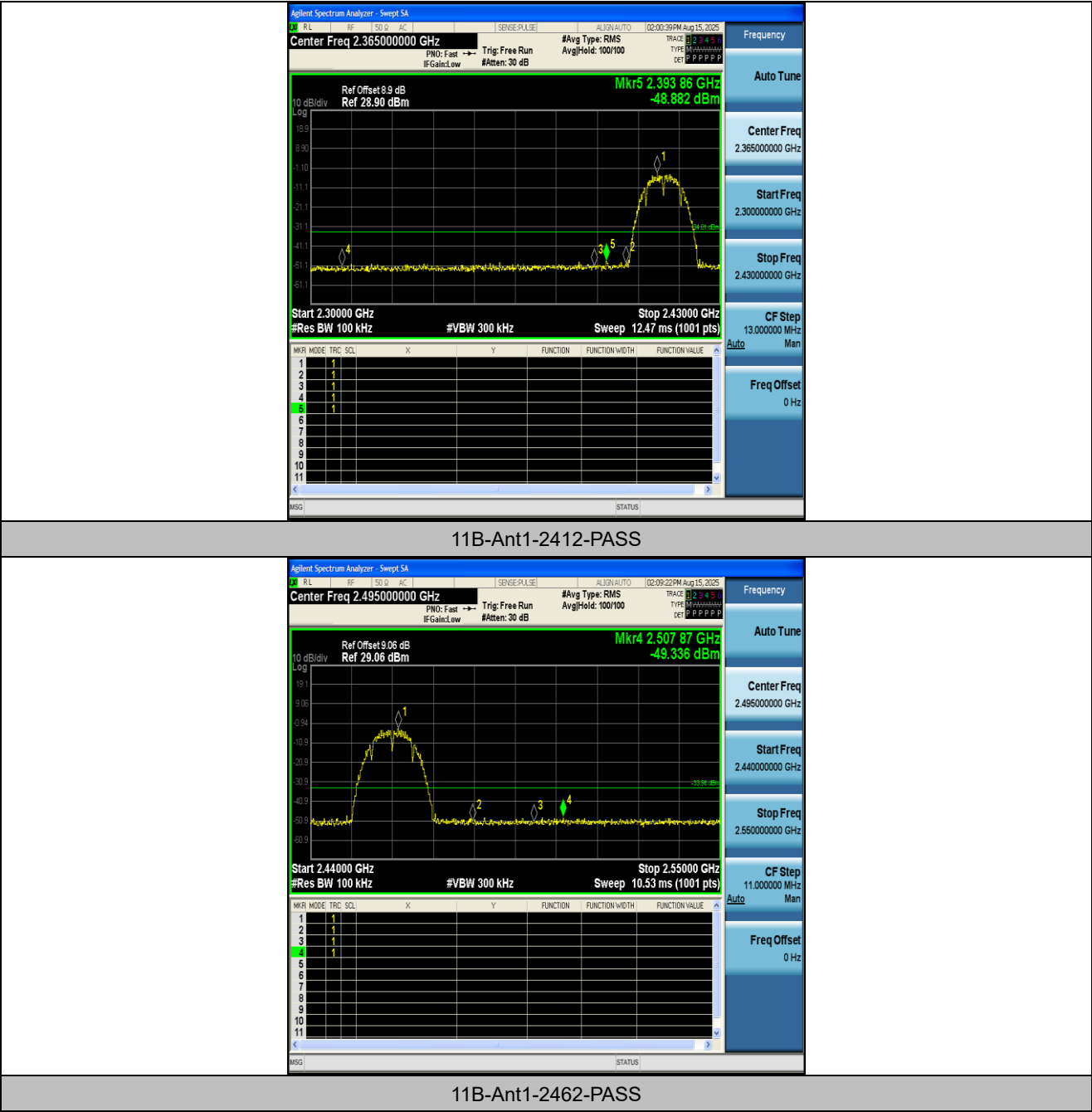
Appendix E: Band edge measurements

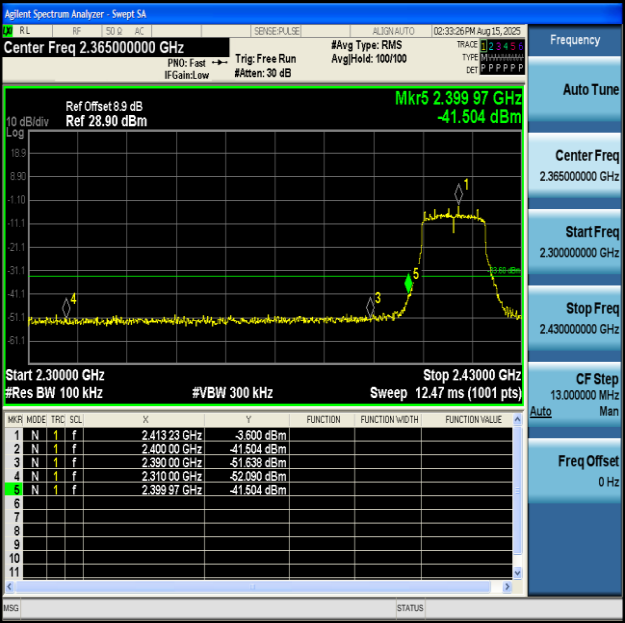
Test Result

Test Mode	Antenna	Ch. Name	Frequency.[MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	-4.01	-48.88	≤ -34.01	PASS
11B	Ant1	High	2462	-3.96	-49.34	≤ -33.96	PASS
11G	Ant1	Low	2412	-3.60	-41.5	≤ -33.6	PASS
11G	Ant1	High	2462	-4.50	-49.24	≤ -34.5	PASS
11N20SISO	Ant1	Low	2412	-3.81	-40.89	≤ -33.81	PASS
11N20SISO	Ant1	High	2462	-4.10	-49.2	≤ -34.1	PASS

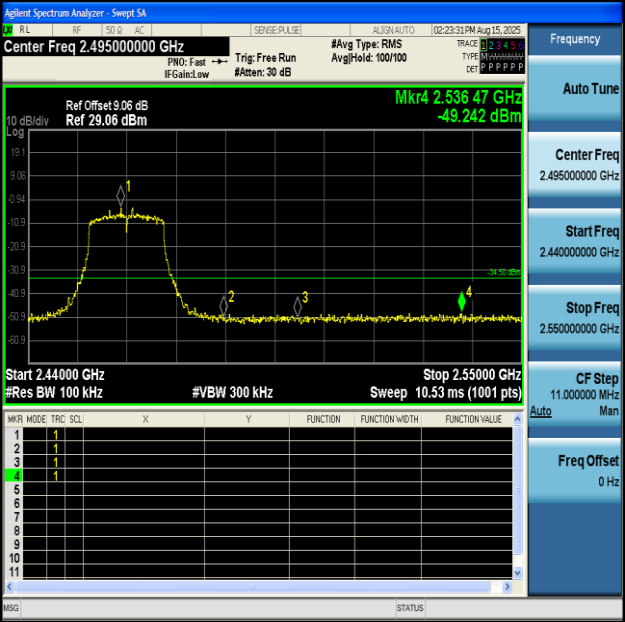
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

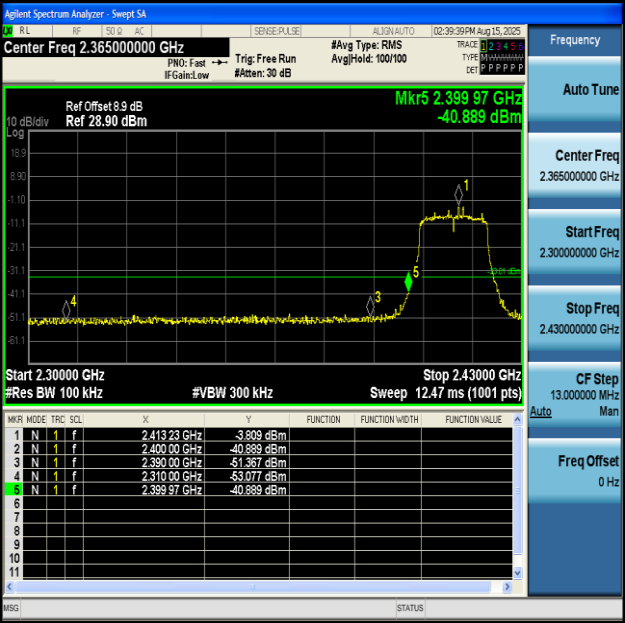




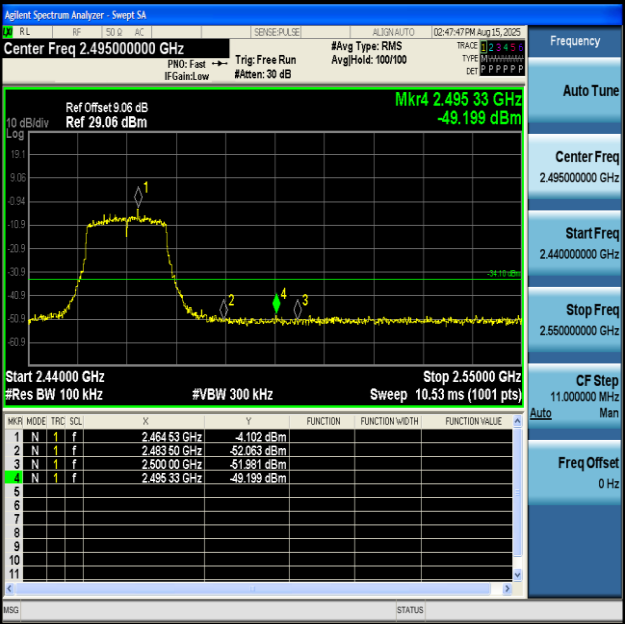
11G-Ant1-2412-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS

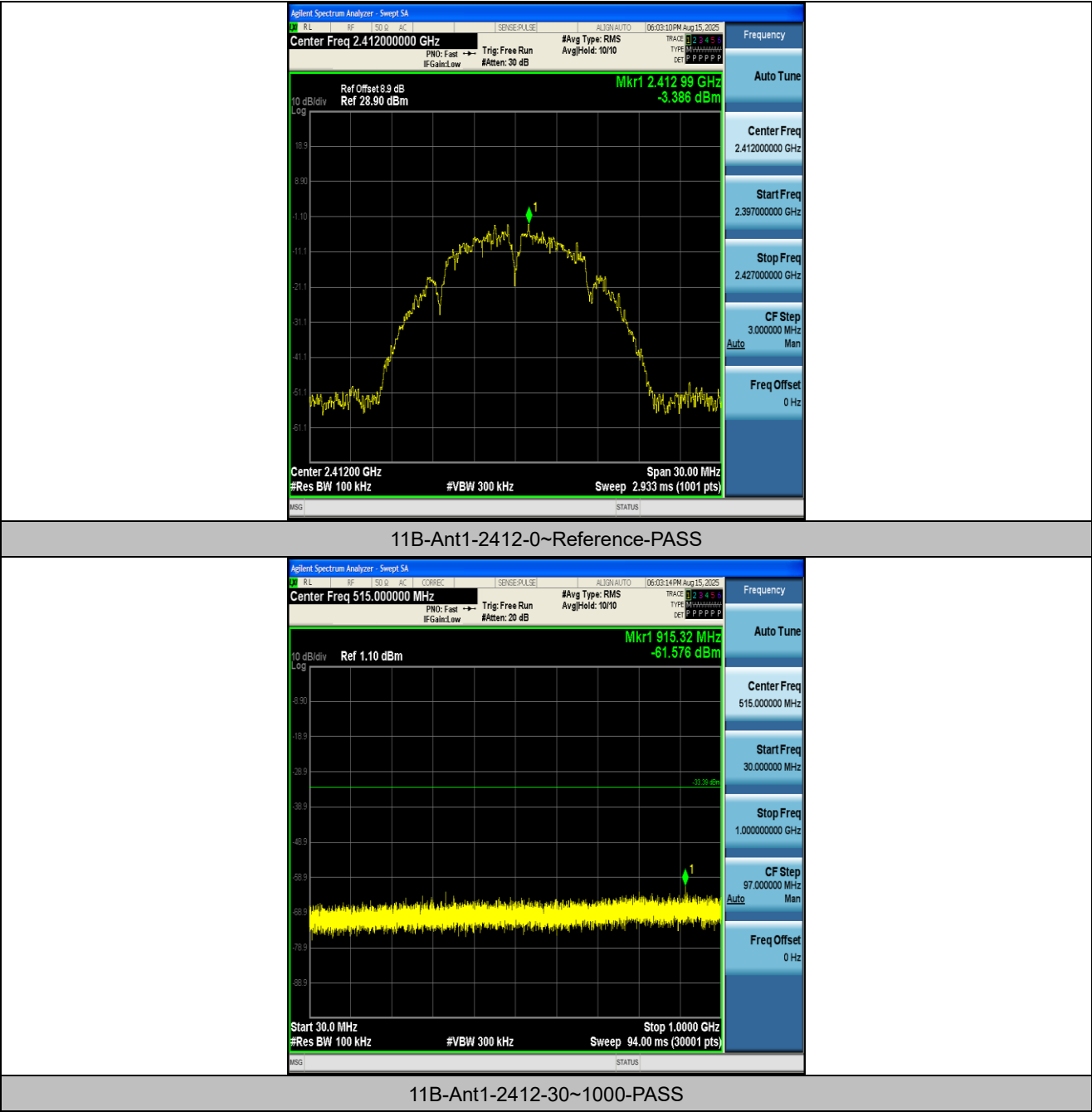
Appendix F: Conducted Spurious Emission

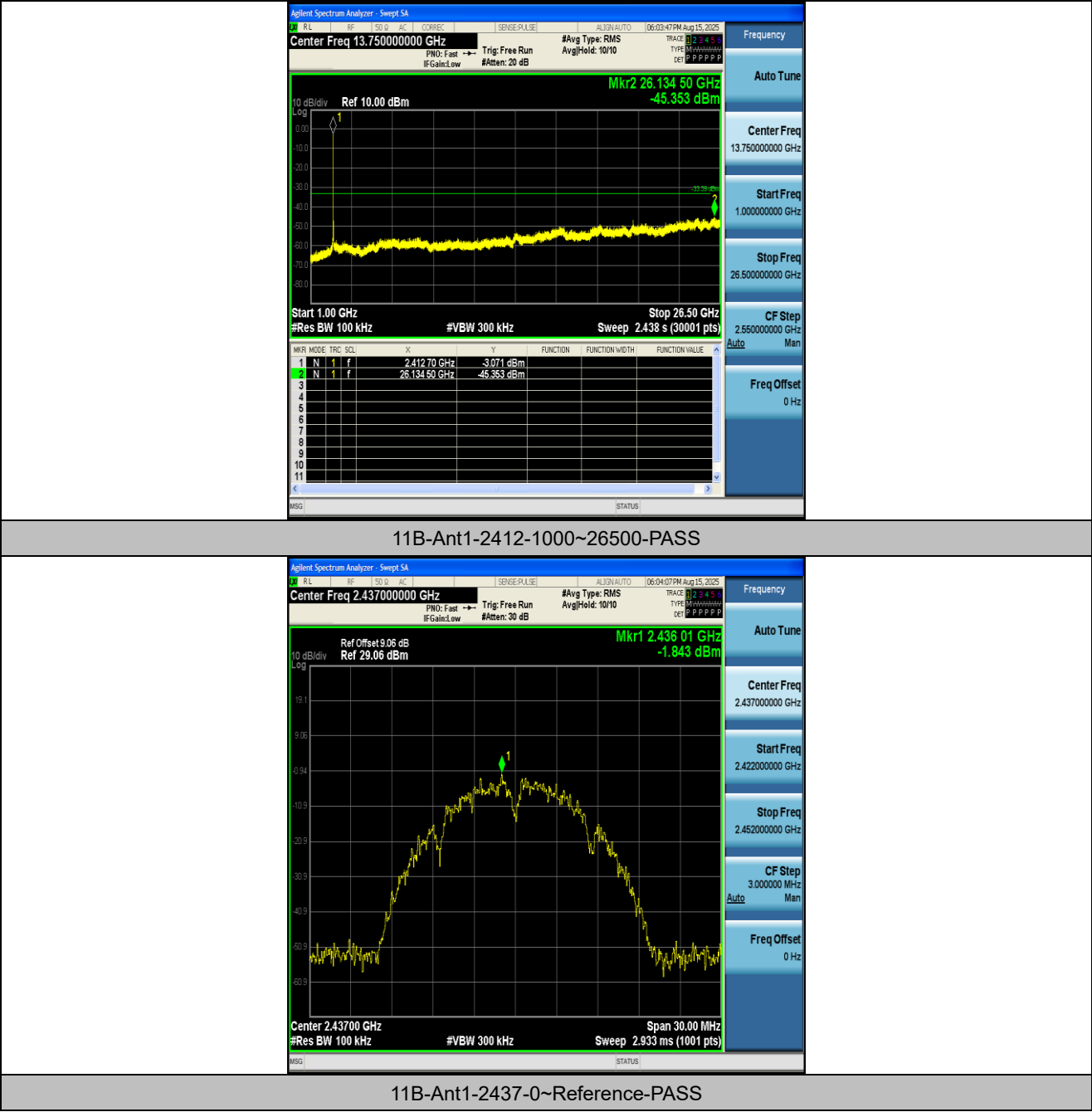
Test Result

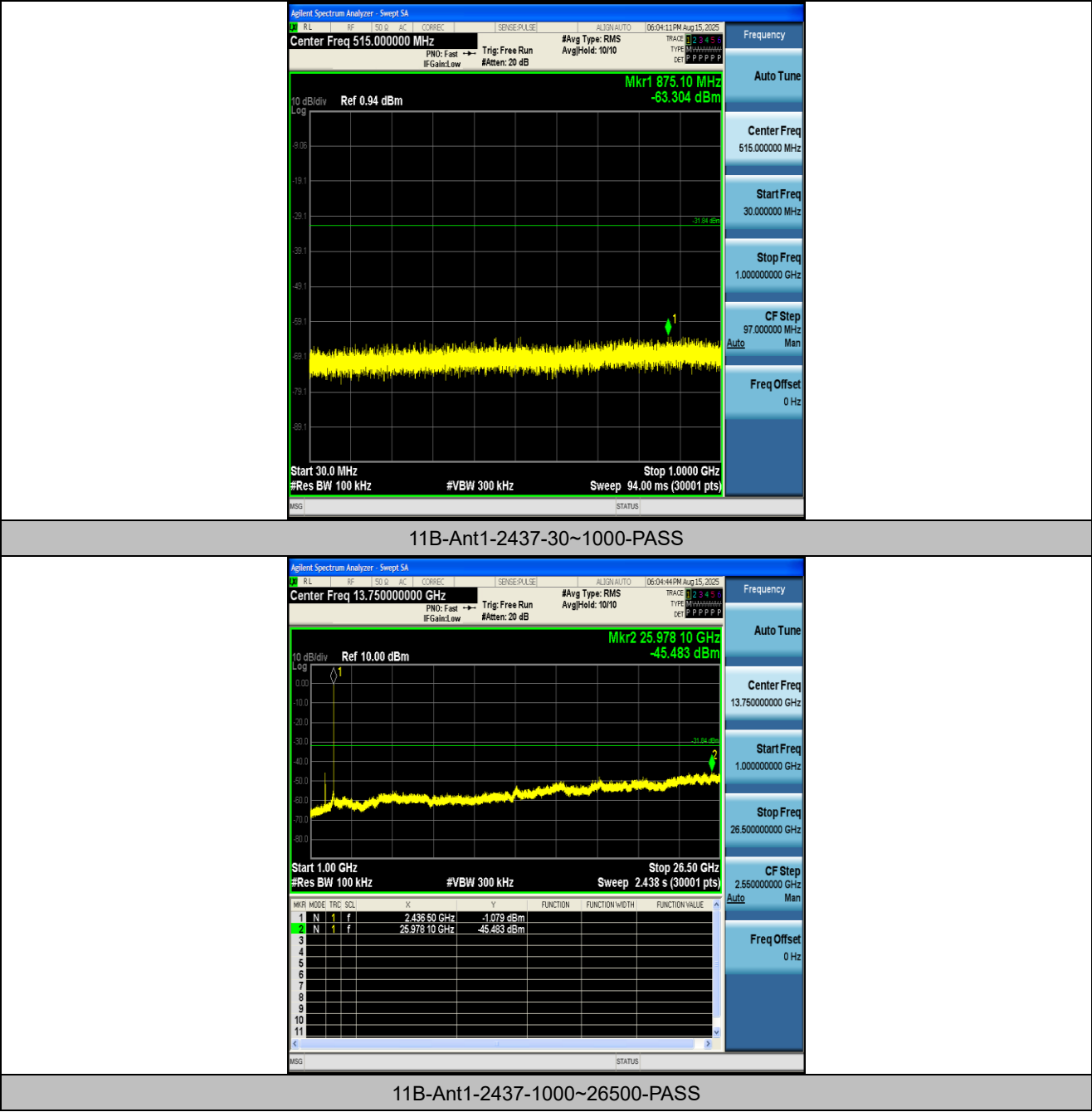
Test Mode	Antenna	Frequency [MHz]	Freq. Range [Mhz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	-3.39	-3.39	---	PASS
11B	Ant1	2412	30~1000	-3.39	-61.58	≤ -33.39	PASS
11B	Ant1	2412	1000~26500	-3.39	-45.35	≤ -33.39	PASS
11B	Ant1	2437	0~Reference	-1.84	-1.84	---	PASS
11B	Ant1	2437	30~1000	-1.84	-63.3	≤ -31.84	PASS
11B	Ant1	2437	1000~26500	-1.84	-45.48	≤ -31.84	PASS
11B	Ant1	2462	0~Reference	-2.82	-2.82	---	PASS
11B	Ant1	2462	30~1000	-2.82	-62.52	≤ -32.82	PASS
11B	Ant1	2462	1000~26500	-2.82	-45.1	≤ -32.82	PASS
11G	Ant1	2412	0~Reference	-4.33	-4.33	---	PASS
11G	Ant1	2412	30~1000	-4.33	-62.96	≤ -34.33	PASS
11G	Ant1	2412	1000~26500	-4.33	-45.08	≤ -34.33	PASS
11G	Ant1	2437	0~Reference	-6.38	-6.38	---	PASS
11G	Ant1	2437	30~1000	-6.38	-62.43	≤ -36.38	PASS
11G	Ant1	2437	1000~26500	-6.38	-45.56	≤ -36.38	PASS
11G	Ant1	2462	0~Reference	-5.28	-5.28	---	PASS
11G	Ant1	2462	30~1000	-5.28	-61.6	≤ -35.28	PASS
11G	Ant1	2462	1000~26500	-5.28	-45.68	≤ -35.28	PASS
11N20SISO	Ant1	2412	0~Reference	-3.57	-3.57	---	PASS
11N20SISO	Ant1	2412	30~1000	-3.57	-60.94	≤ -33.57	PASS
11N20SISO	Ant1	2412	1000~26500	-3.57	-45.13	≤ -33.57	PASS
11N20SISO	Ant1	2437	0~Reference	-2.61	-2.61	---	PASS
11N20SISO	Ant1	2437	30~1000	-2.61	-63.19	≤ -32.61	PASS
11N20SISO	Ant1	2437	1000~26500	-2.61	-45.41	≤ -32.61	PASS
11N20SISO	Ant1	2462	0~Reference	-5.22	-5.22	---	PASS
11N20SISO	Ant1	2462	30~1000	-5.22	-62.61	≤ -35.22	PASS
11N20SISO	Ant1	2462	1000~26500	-5.22	-43.84	≤ -35.22	PASS

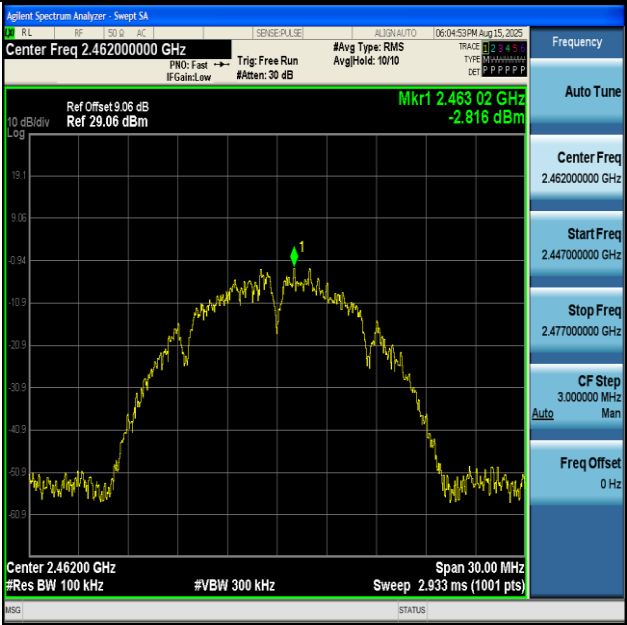
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

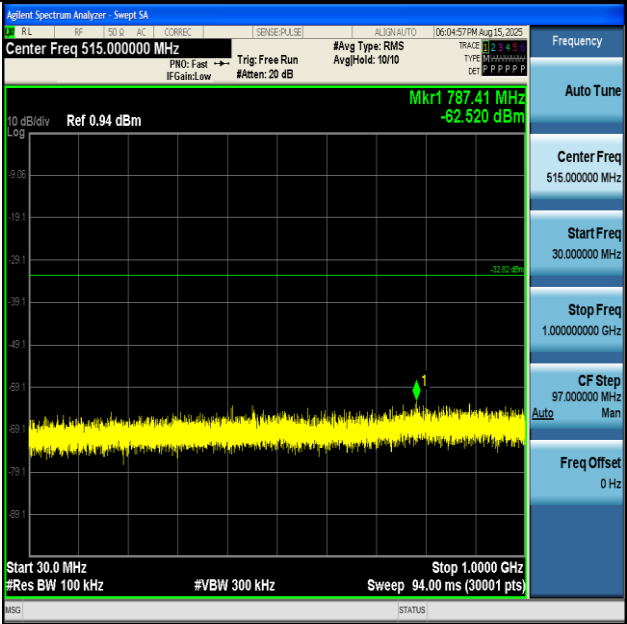




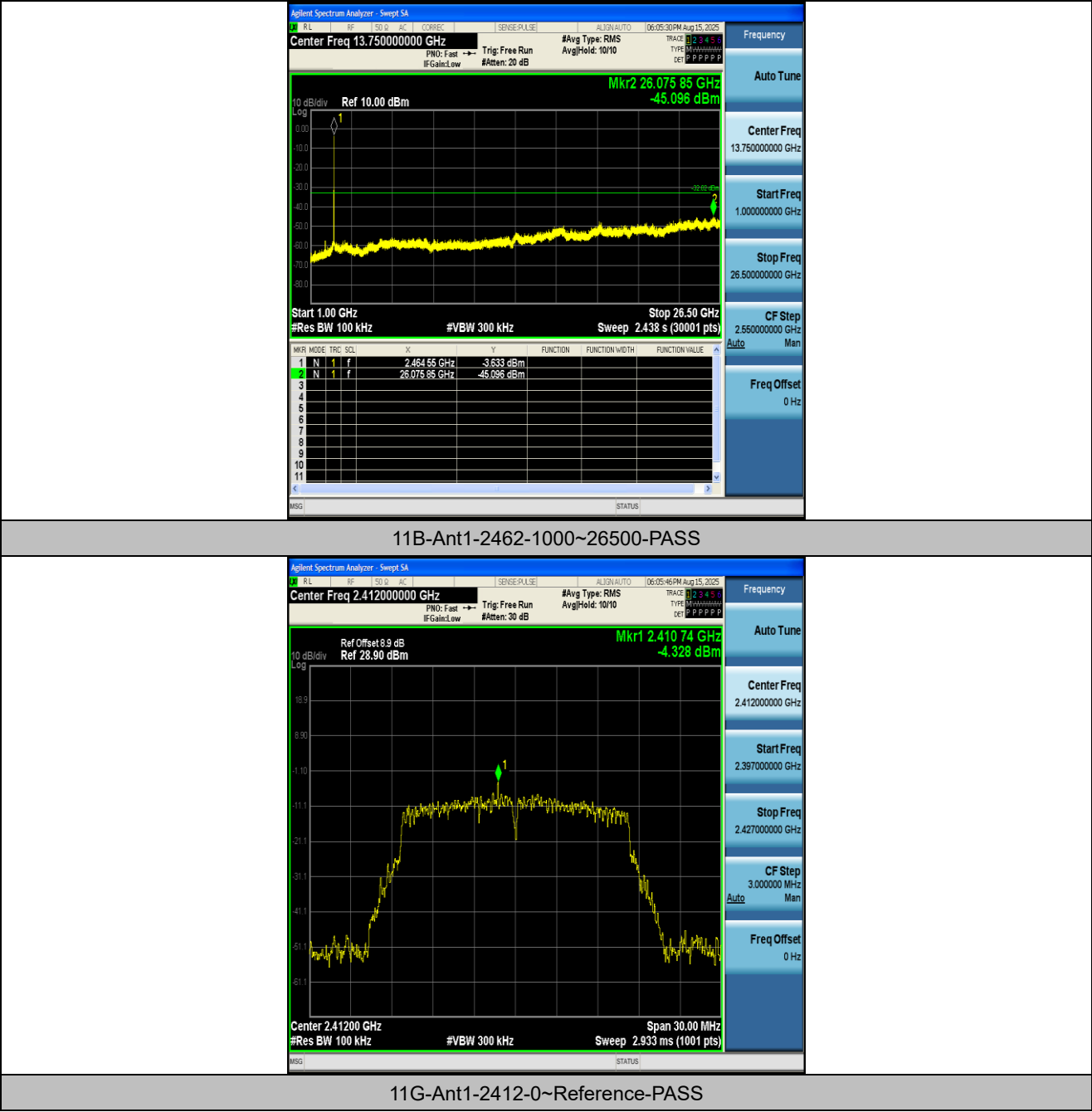


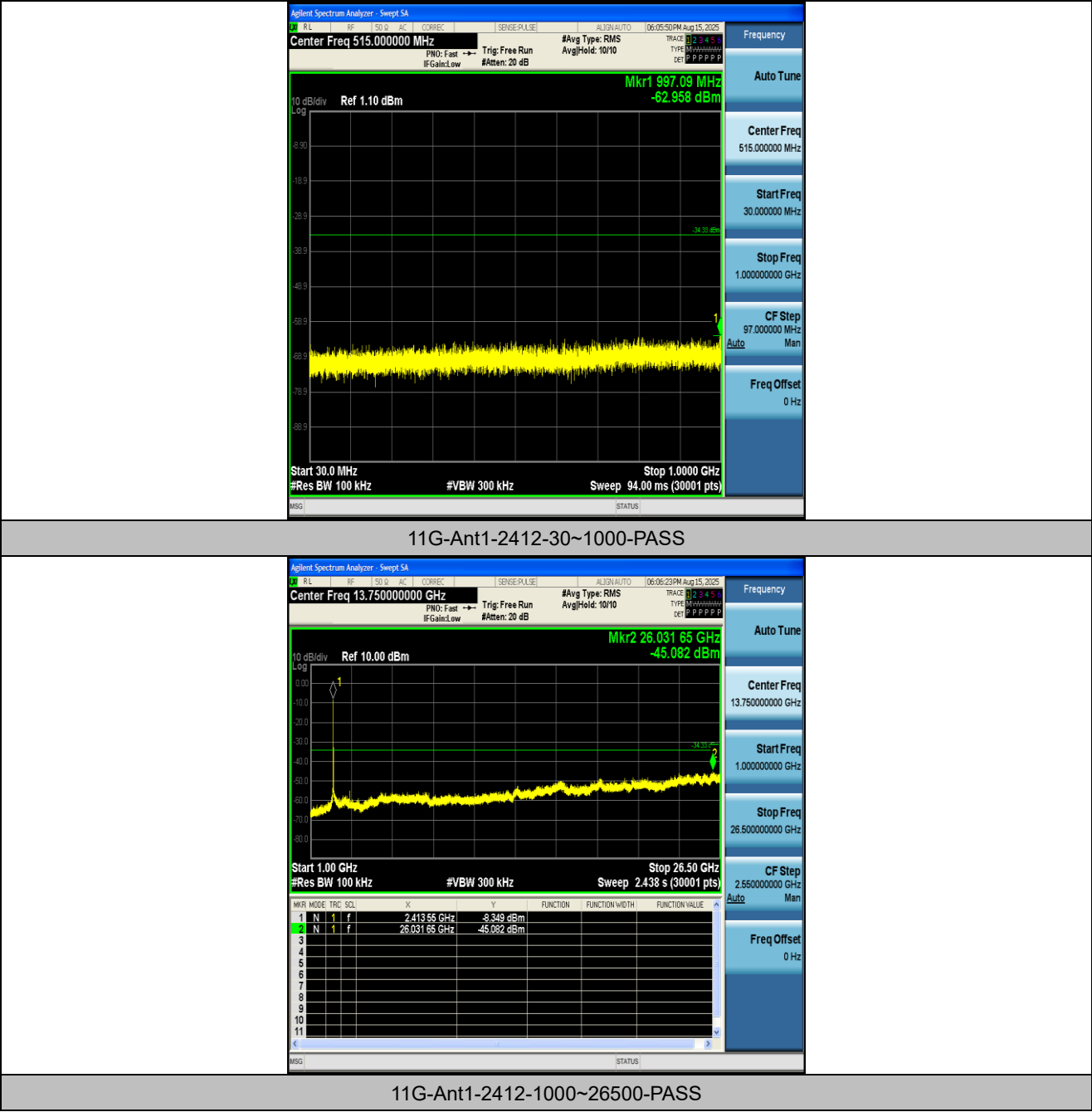


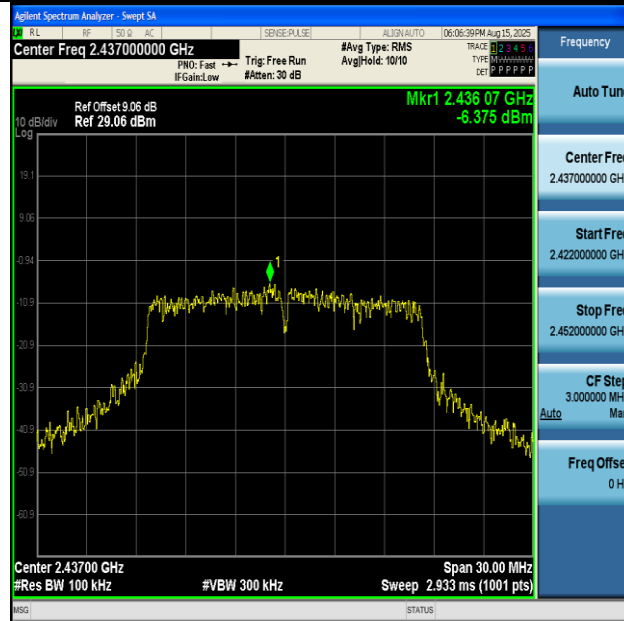
11B-Ant1-2462-0~Reference-PASS



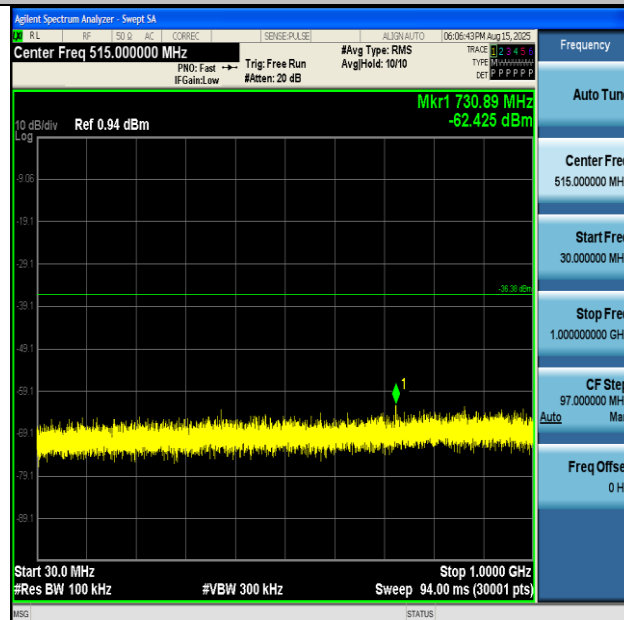
11B-Ant1-2462-30~1000-PASS



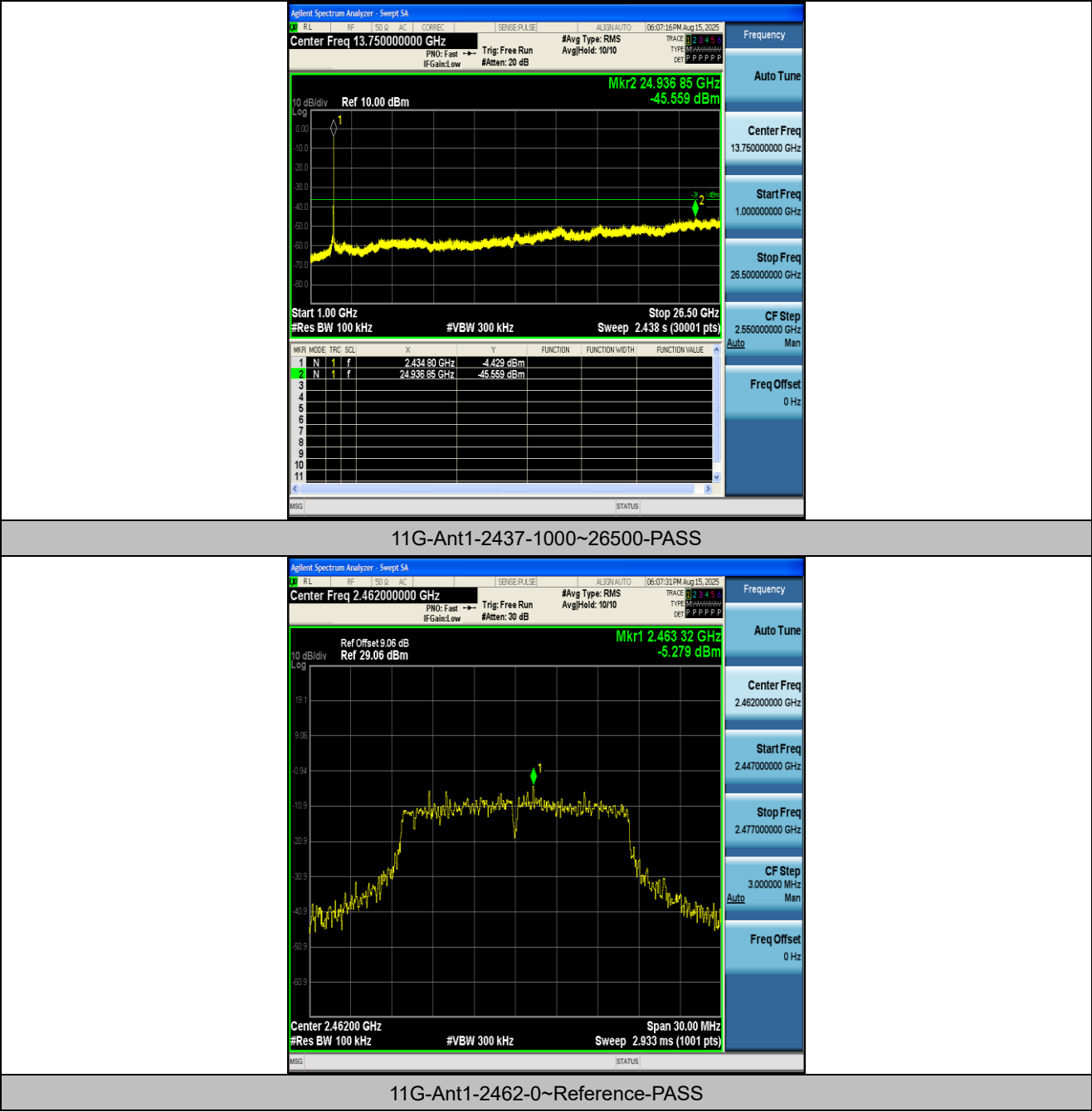


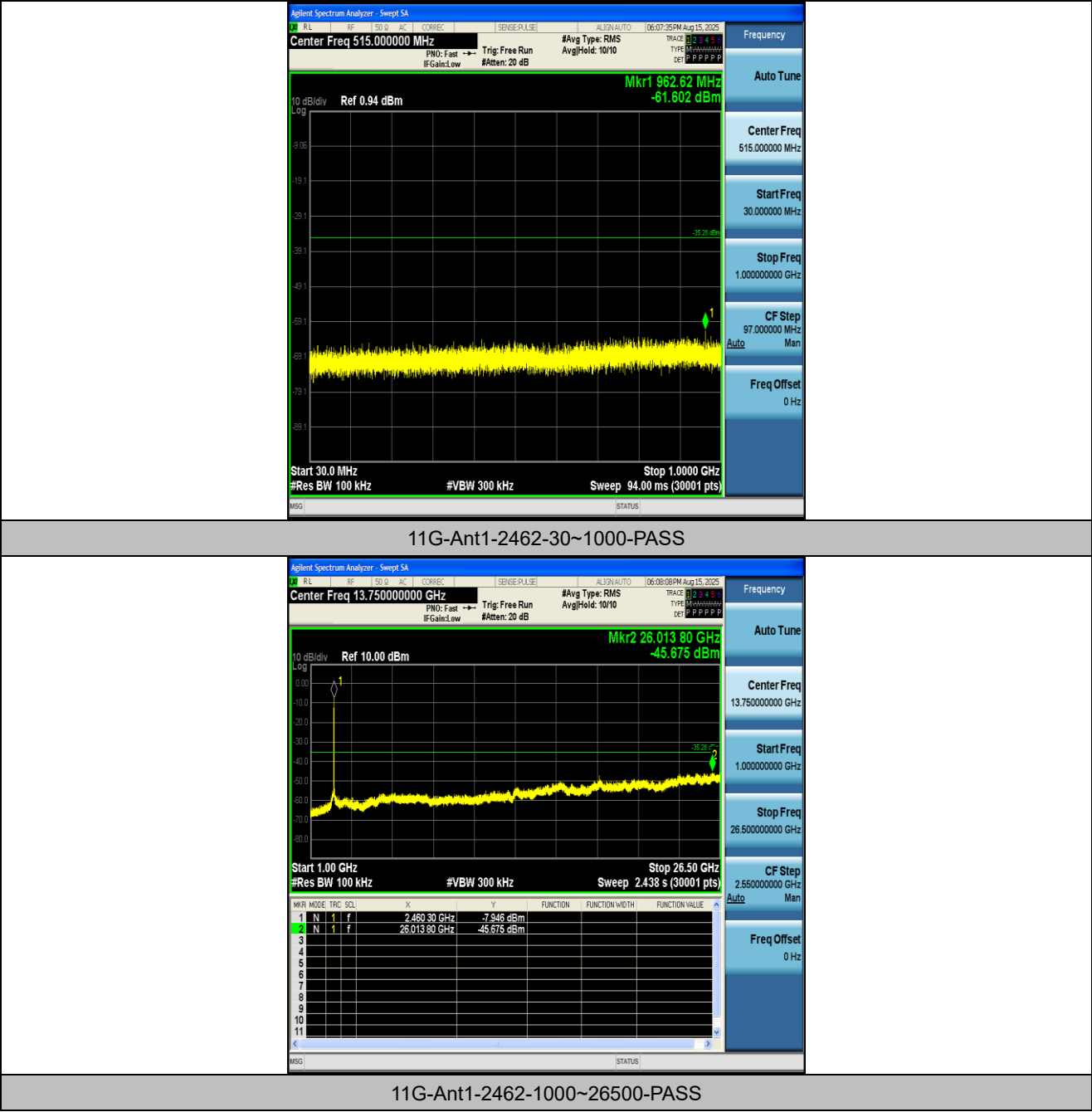


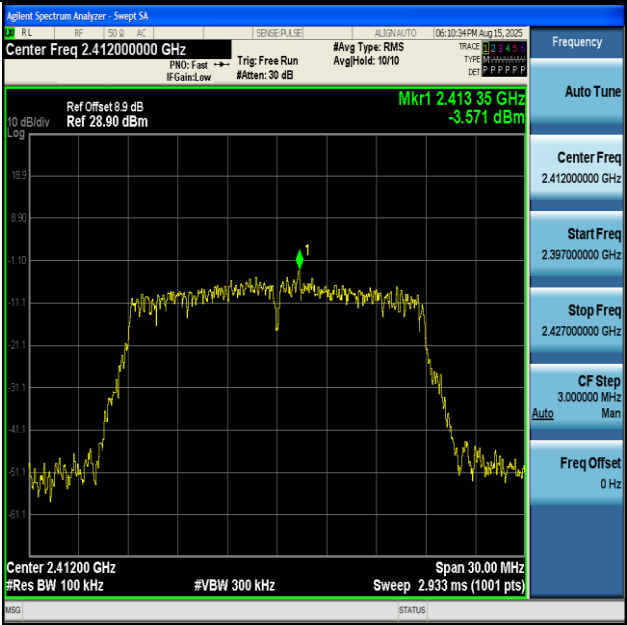
11G-Ant1-2437-0~Reference-PASS



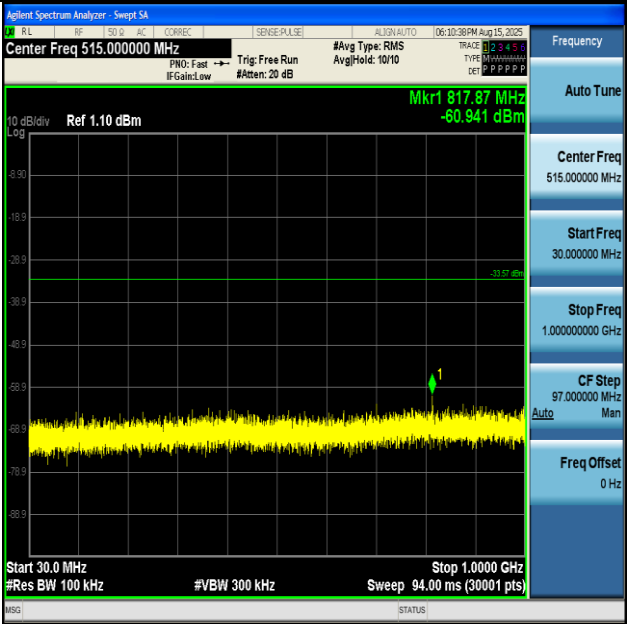
11G-Ant1-2437-30~1000-PASS



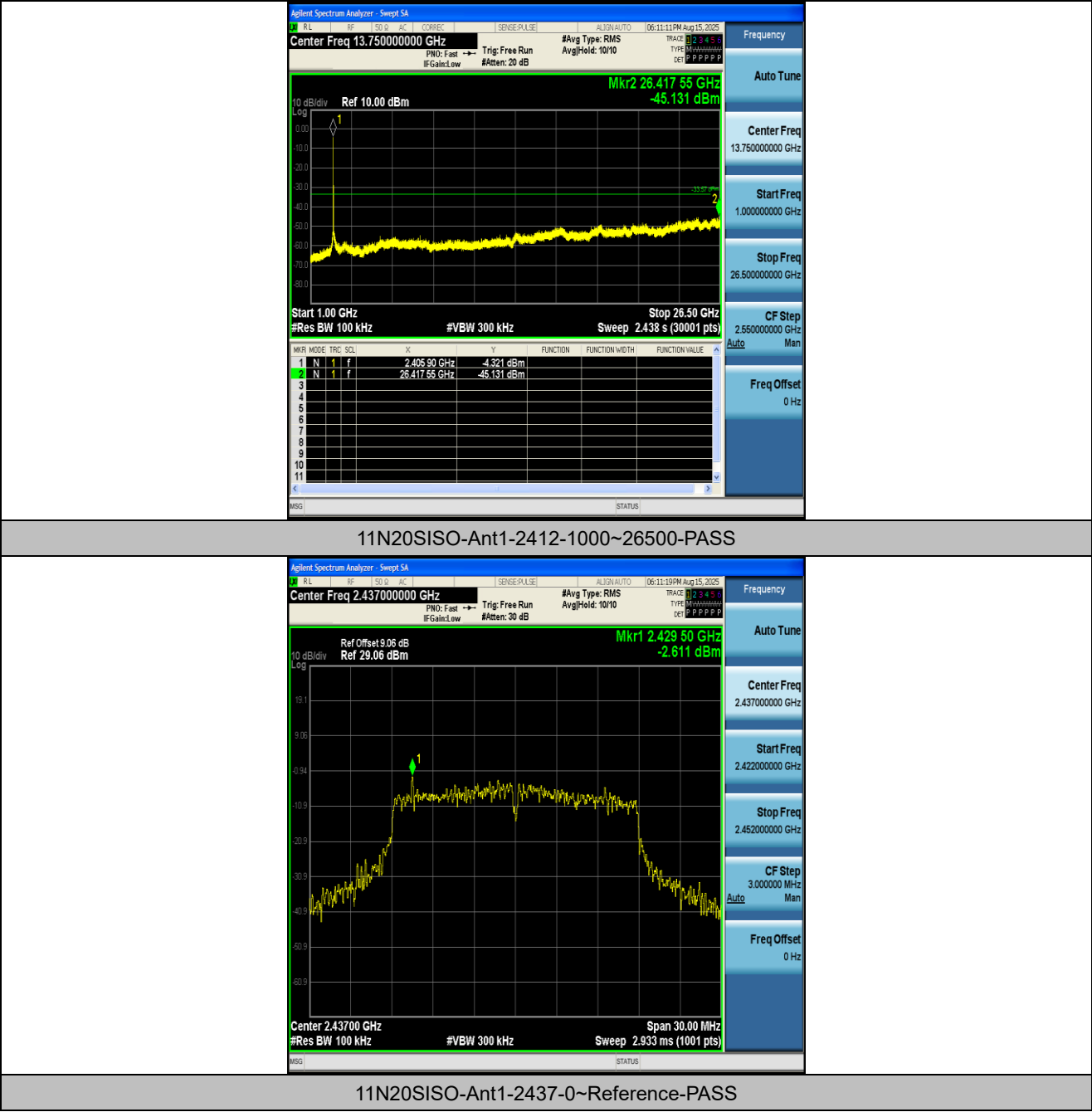


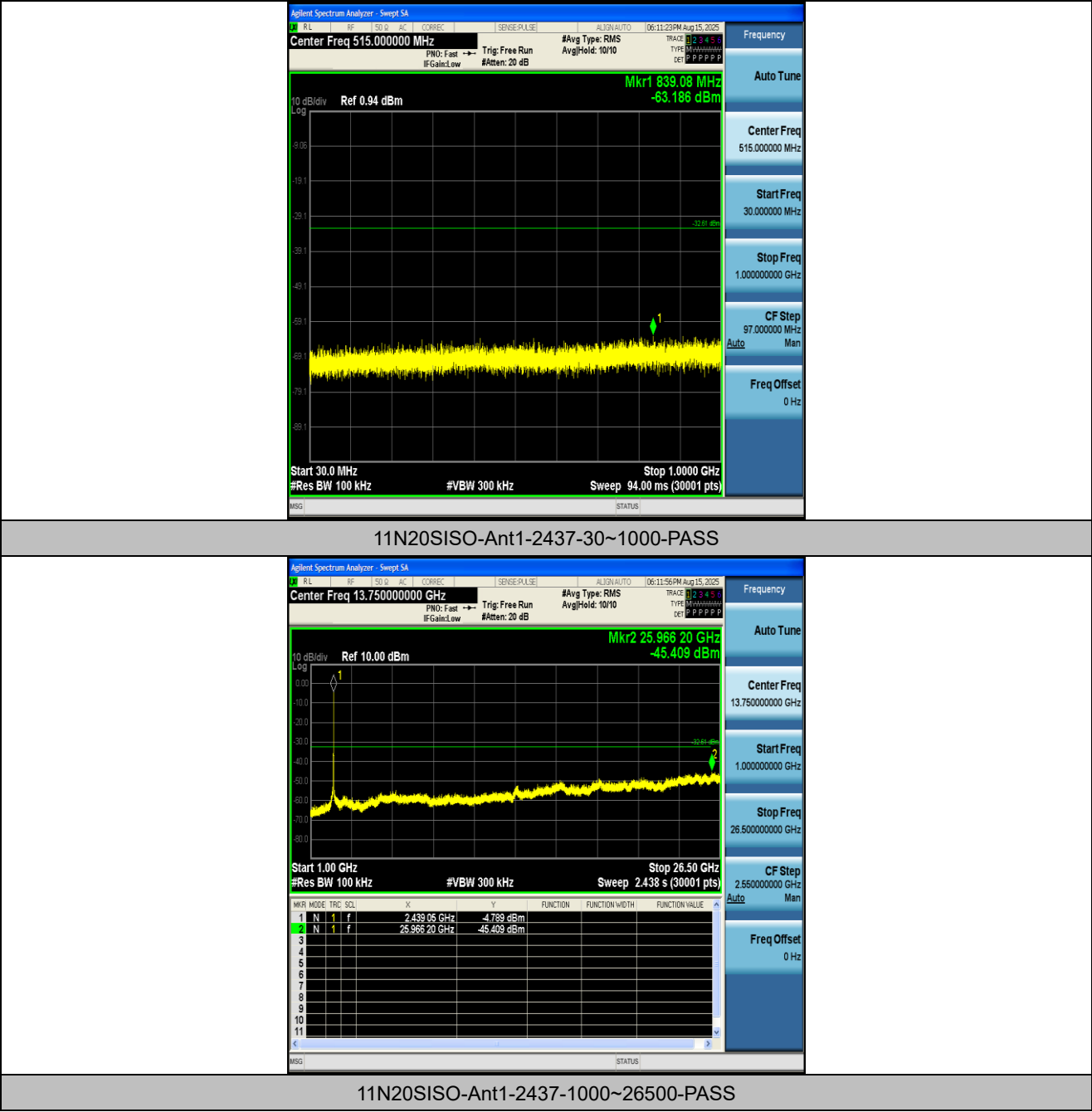


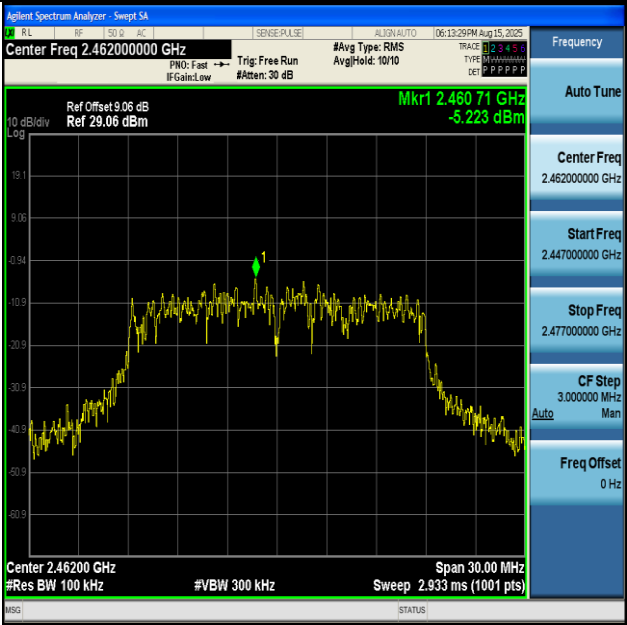
11N20SISO-Ant1-2412-0~Reference-PASS



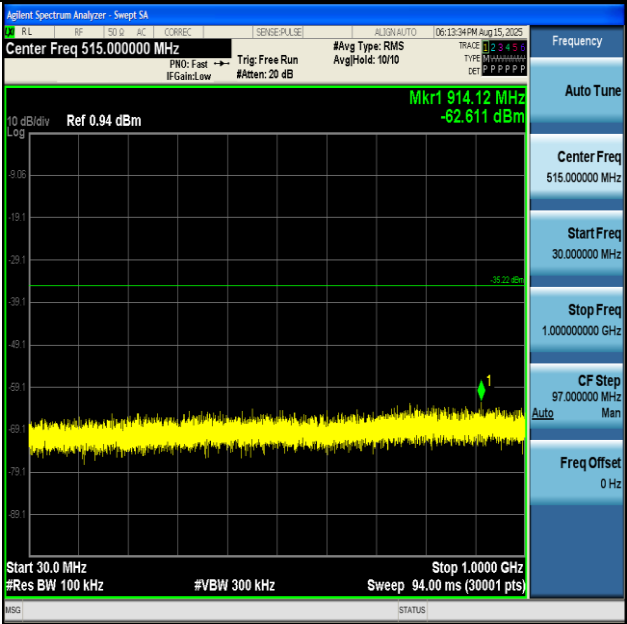
11N20SISO-Ant1-2412-30~1000-PASS



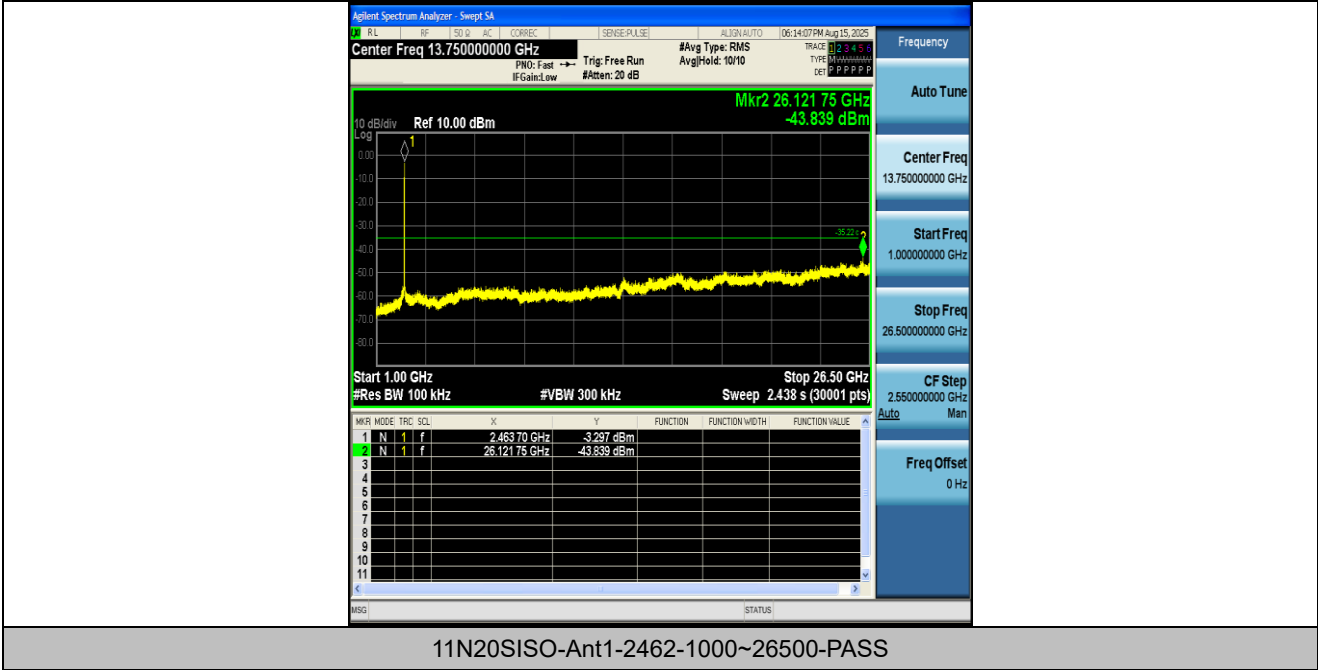




11N20SISO-Ant1-2462-0~Reference-PASS



11N20SISO-Ant1-2462-30~1000-PASS



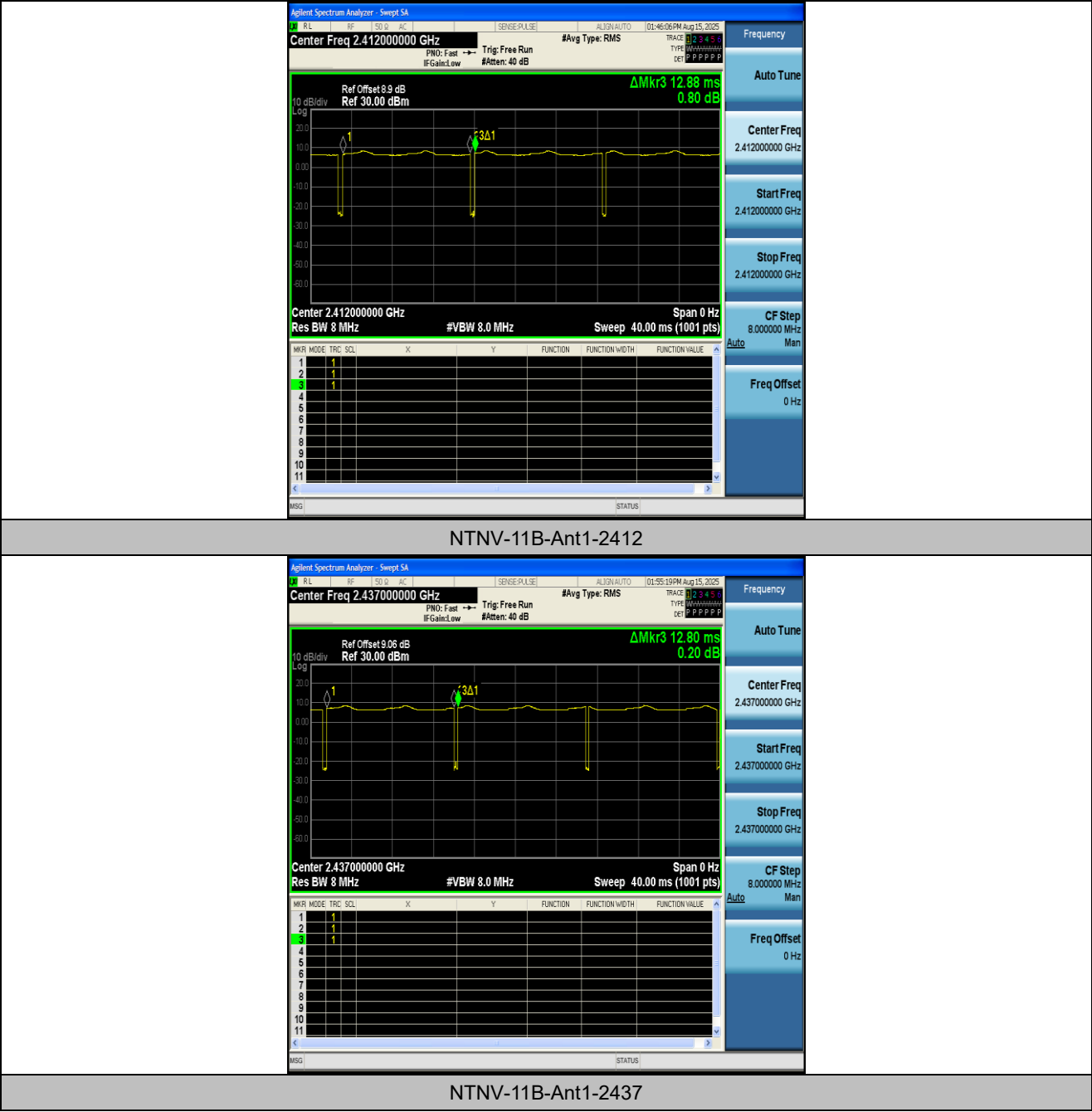
Appendix G: Duty Cycle

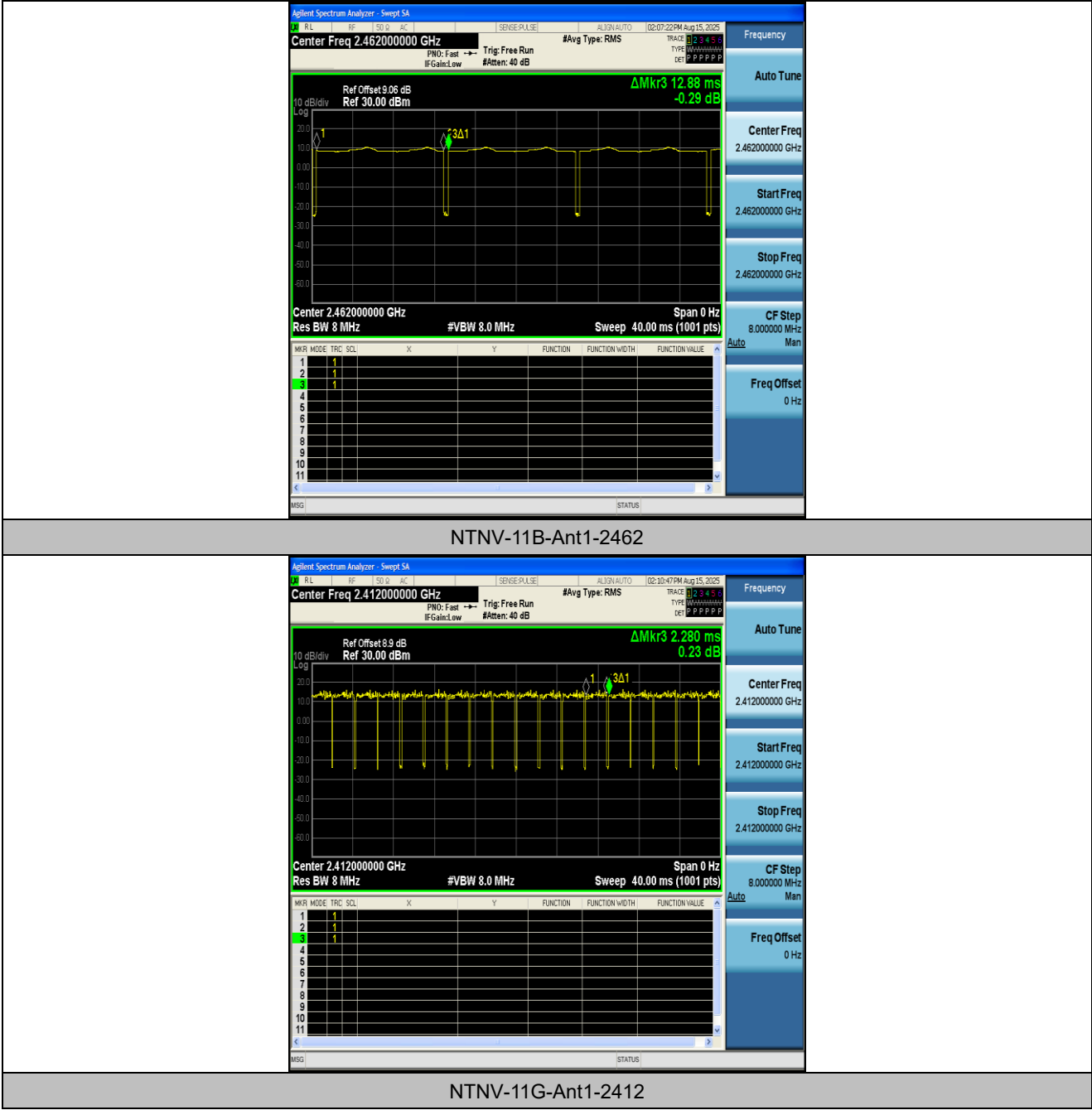
Test Result

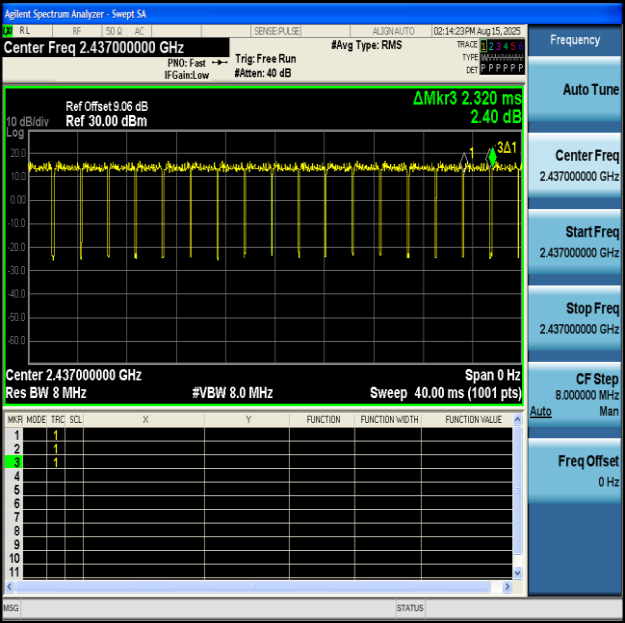
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	12.40	12.88	96.27	0.17
11B	Ant1	2437	12.40	12.80	96.88	0.14
11B	Ant1	2462	12.40	12.88	96.27	0.17
11G	Ant1	2412	2.04	2.28	89.47	0.48
11G	Ant1	2437	2.08	2.32	89.66	0.47
11G	Ant1	2462	2.04	2.24	91.07	0.41
11N20SISO	Ant1	2412	1.92	2.16	88.89	0.51
11N20SISO	Ant1	2437	1.92	2.16	88.89	0.51
11N20SISO	Ant1	2462	1.92	2.16	88.89	0.51

Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

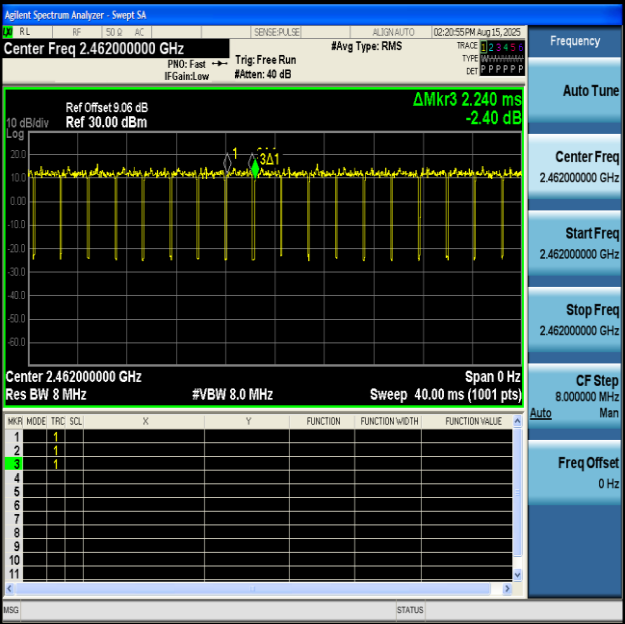
Test Graphs



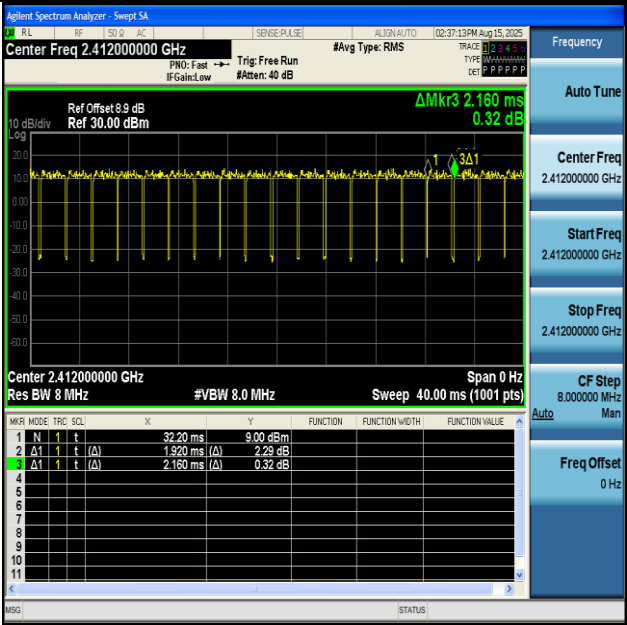




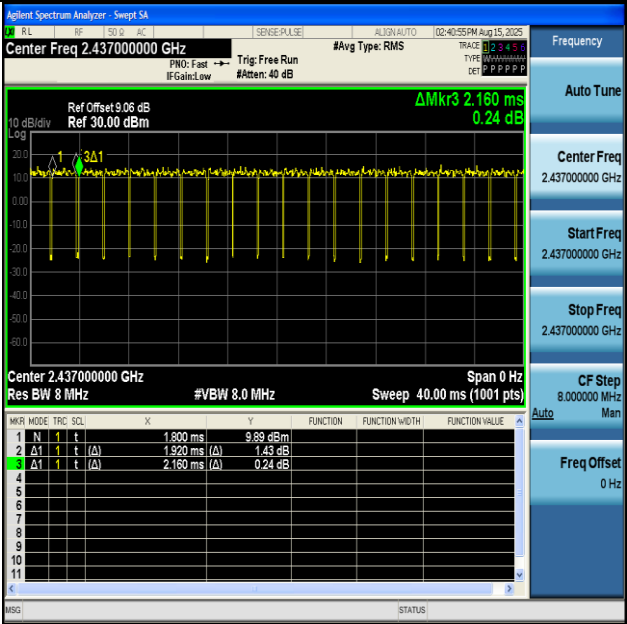
NTNV-11G-Ant1-2437



NTNV-11G-Ant1-2462



NTNV-11N20SISO-Ant1-2412



NTNV-11N20SISO-Ant1-2437

