

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

Product Name: RC CAR

Trade Mark: suangrc

Test Model: LH-C093S

FCC ID: 2BOLWSA0341

Environmental Conditions

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

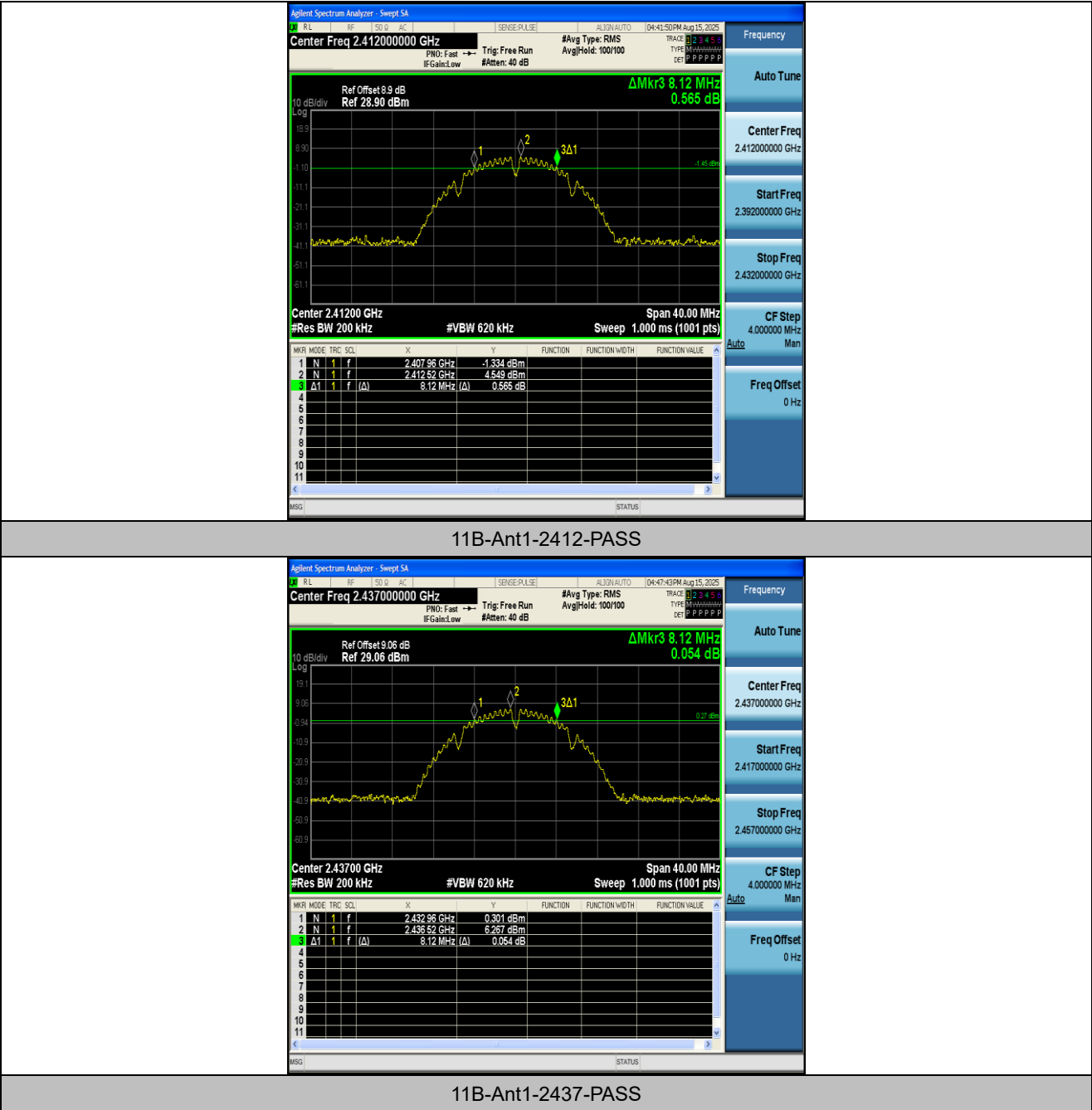
Appendix A: DTS Bandwidth

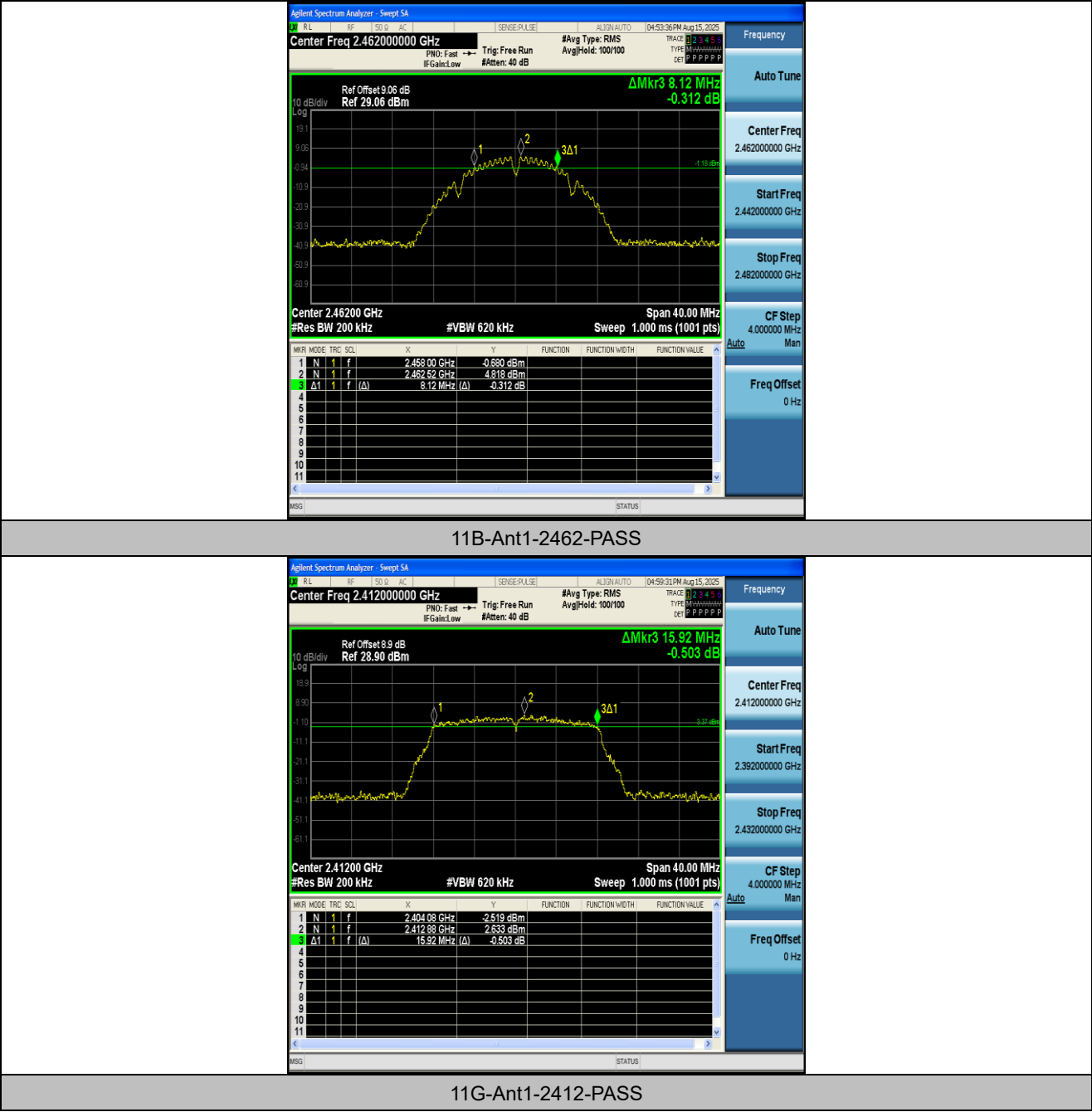
Test Result

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	16.040	2429.000	2445.040	0.5	PASS
11G	Ant1	2462	16.280	2453.880	2470.160	0.5	PASS
11N20SISO	Ant1	2412	16.920	2403.240	2420.160	0.5	PASS
11N20SISO	Ant1	2437	17.320	2428.360	2445.680	0.5	PASS
11N20SISO	Ant1	2462	17.520	2453.240	2470.760	0.5	PASS

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

Test Graphs



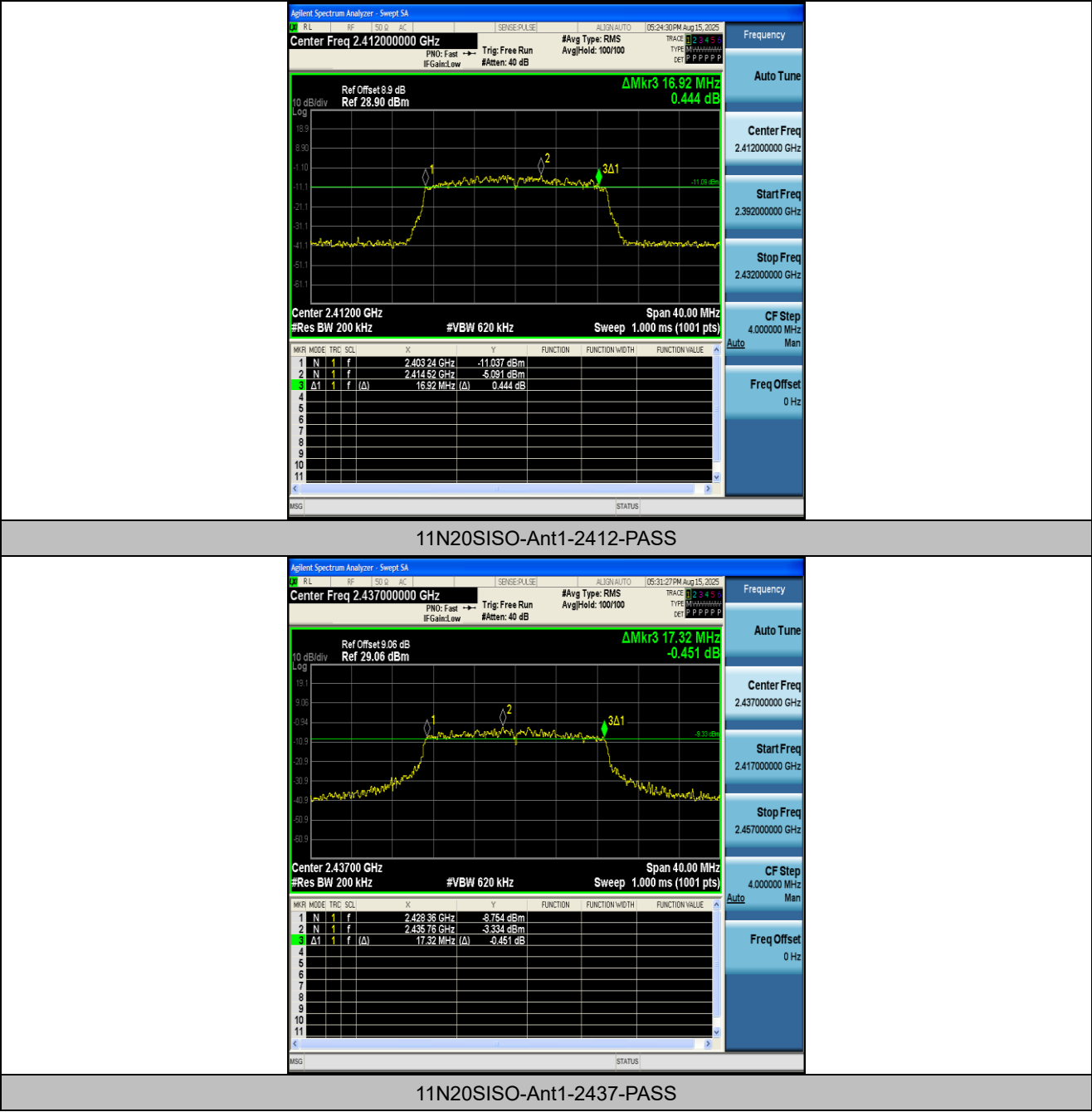




11G-Ant1-2437-PASS



11G-Ant1-2462-PASS





Appendix B: Occupied Channel Bandwidth

Test Result

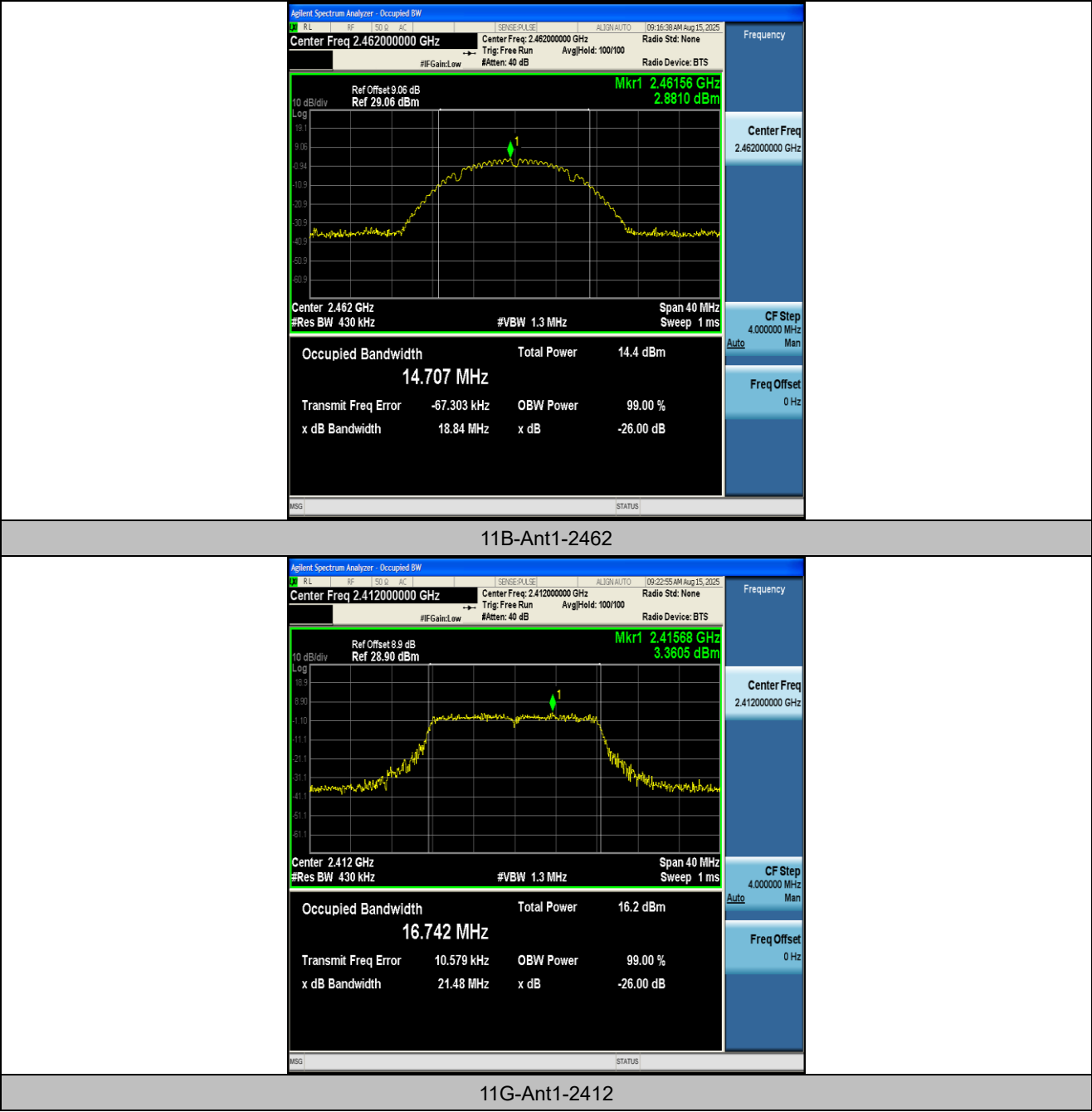
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	14.724	2404.4971	2419.2211	---	---
11B	Ant1	2437	14.502	2429.5618	2444.0638	---	---
11B	Ant1	2462	14.707	2454.5792	2469.2862	---	---
11G	Ant1	2412	16.742	2403.6396	2420.3816	---	---
11G	Ant1	2437	16.515	2428.7844	2445.2994	---	---
11G	Ant1	2462	16.675	2453.7398	2470.4148	---	---
11N20SISO	Ant1	2412	17.805	2403.1126	2420.9176	---	---
11N20SISO	Ant1	2437	17.645	2428.1900	2445.8350	---	---
11N20SISO	Ant1	2462	17.854	2453.1101	2470.9641	---	---

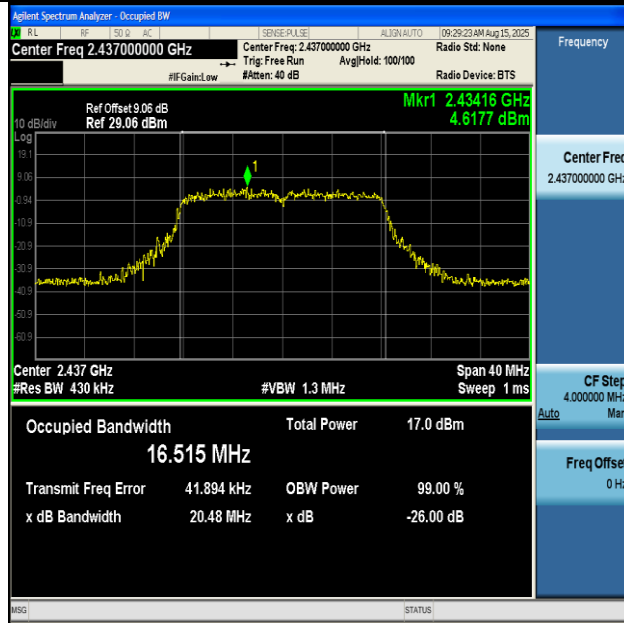
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs



11B-Ant1-2437

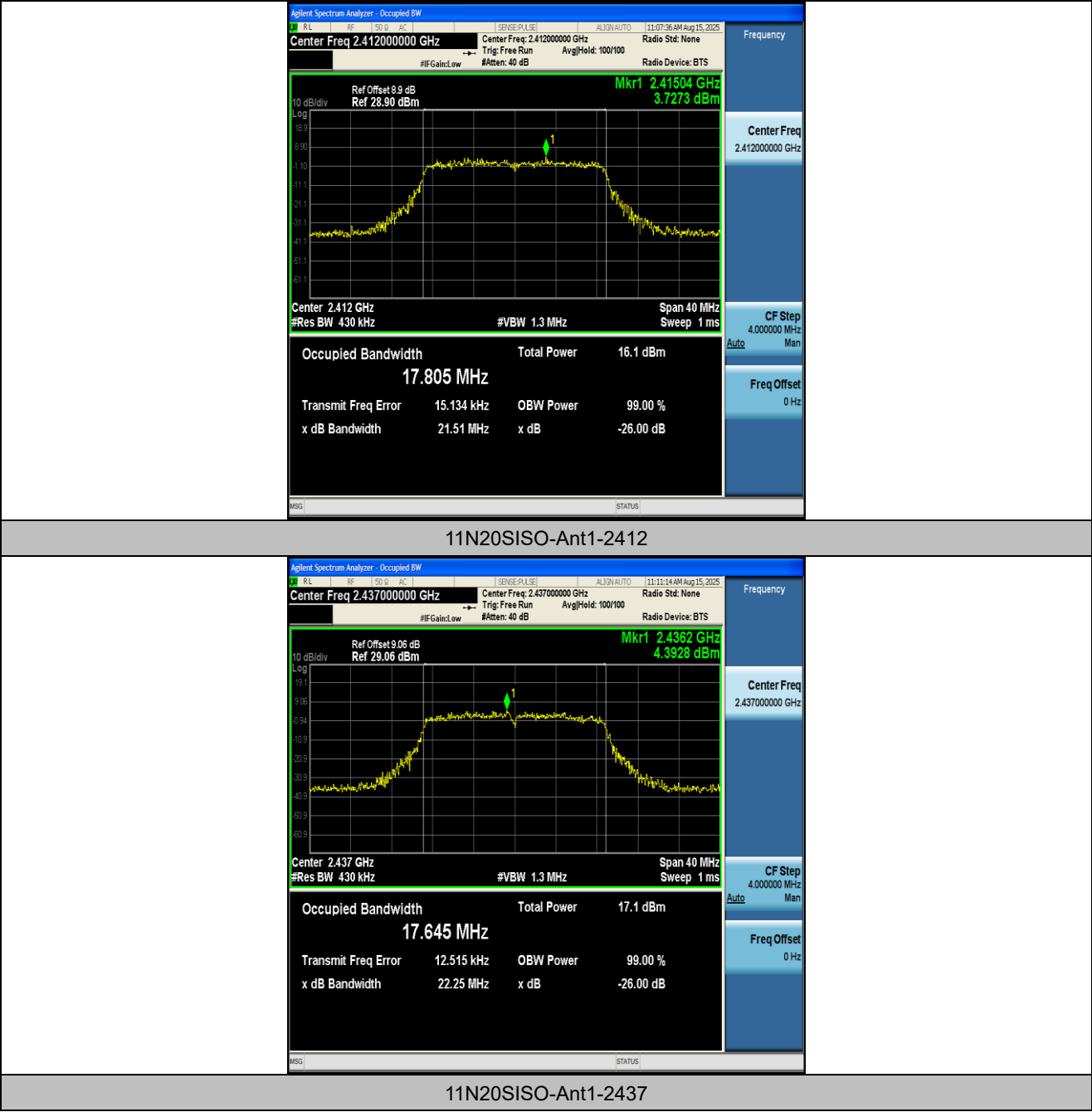


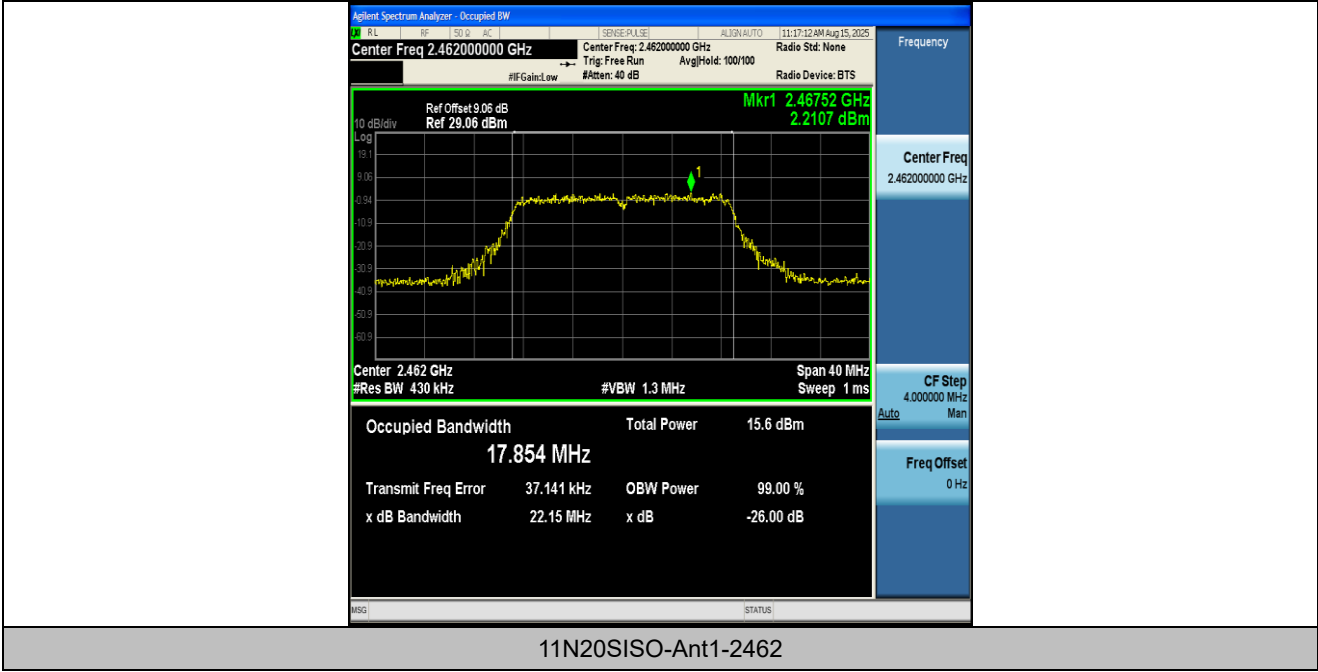


11G-Ant1-2437



11G-Ant1-2462





Appendix C: Maximum Average conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	12.43	≤30.00	PASS
11B	Ant1	2437	13.19	≤30.00	PASS
11B	Ant1	2462	11.51	≤30.00	PASS
11G	Ant1	2412	11.09	≤30.00	PASS
11G	Ant1	2437	13.15	≤30.00	PASS
11G	Ant1	2462	12.21	≤30.00	PASS
11N20SISO	Ant1	2412	11.23	≤30.00	PASS
11N20SISO	Ant1	2437	11.94	≤30.00	PASS
11N20SISO	Ant1	2462	11.43	≤30.00	PASS

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

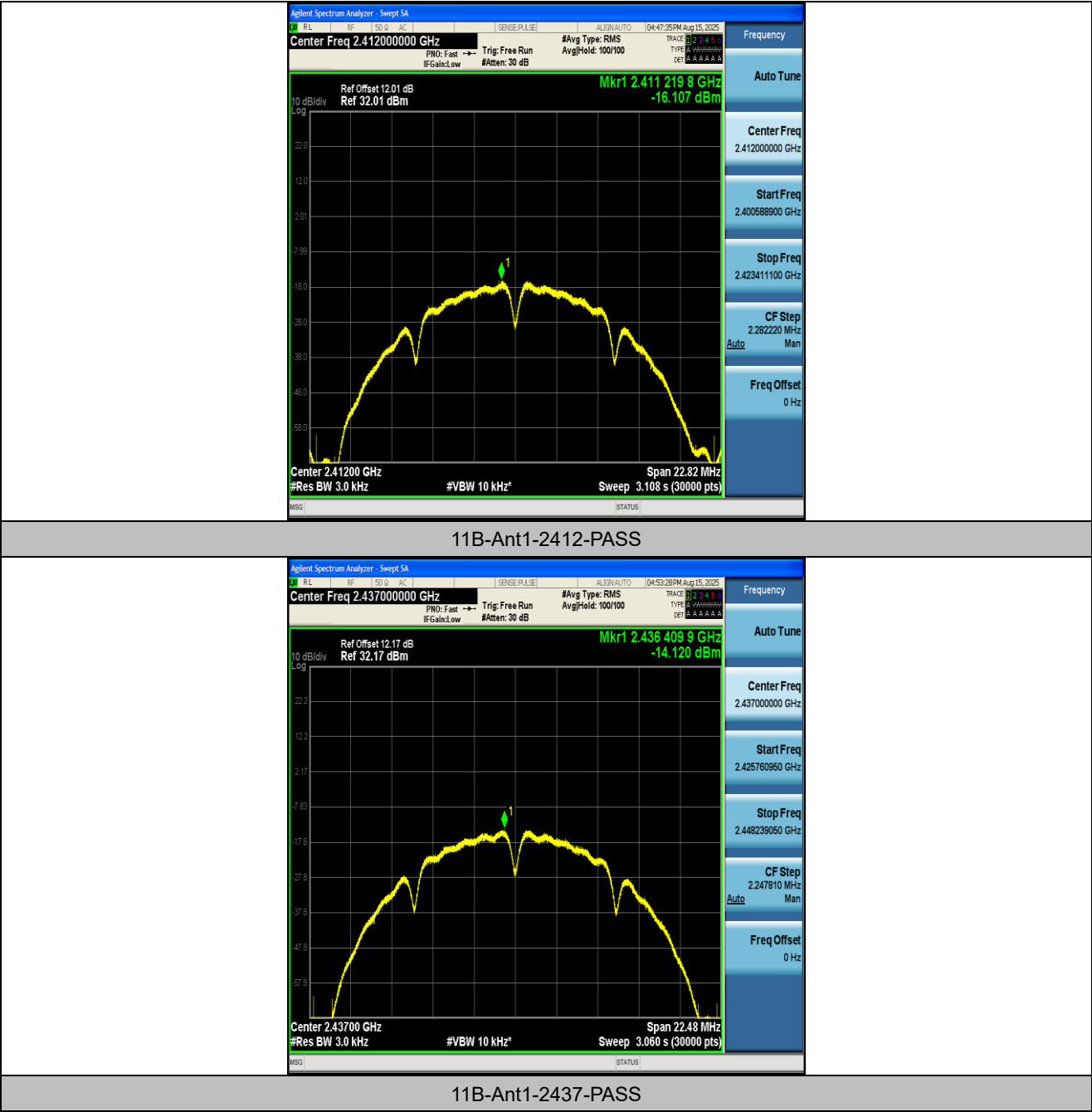
Appendix D: Maximum Average power spectral density

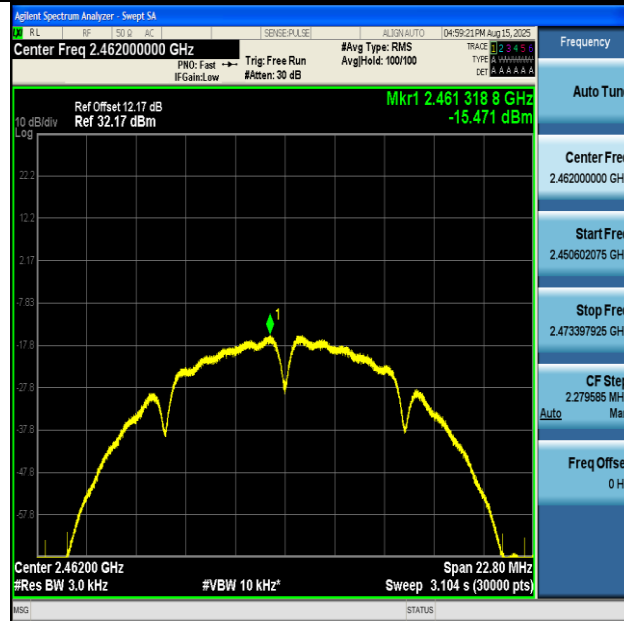
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-16.11	≤8.00	PASS
11B	Ant1	2437	-14.12	≤8.00	PASS
11B	Ant1	2462	-15.47	≤8.00	PASS
11G	Ant1	2412	-14.30	≤8.00	PASS
11G	Ant1	2437	-12.90	≤8.00	PASS
11G	Ant1	2462	-13.13	≤8.00	PASS
11N20SISO	Ant1	2412	-19.22	≤8.00	PASS
11N20SISO	Ant1	2437	-18.26	≤8.00	PASS
11N20SISO	Ant1	2462	-19.77	≤8.00	PASS

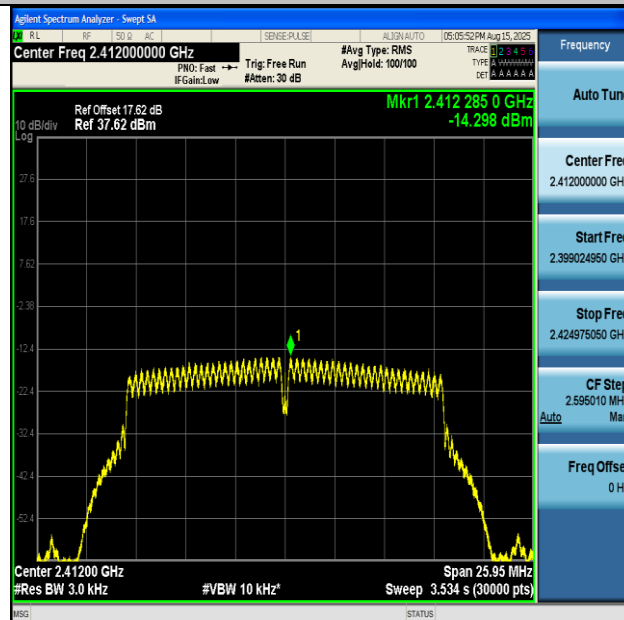
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)

Test Graphs

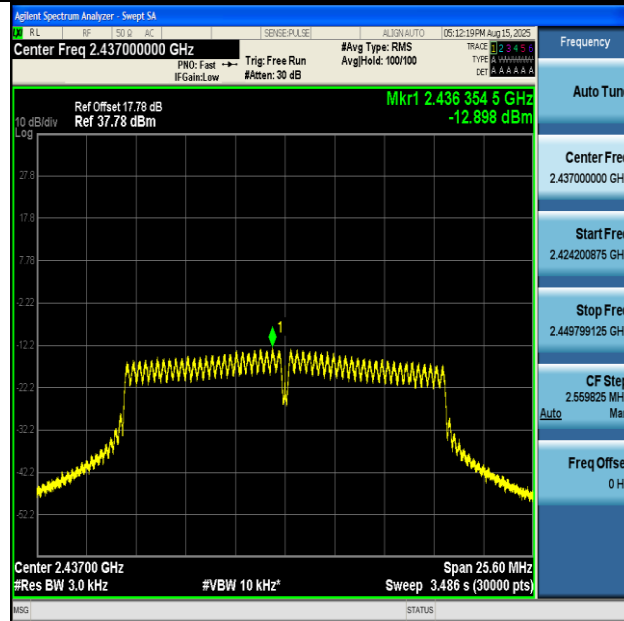




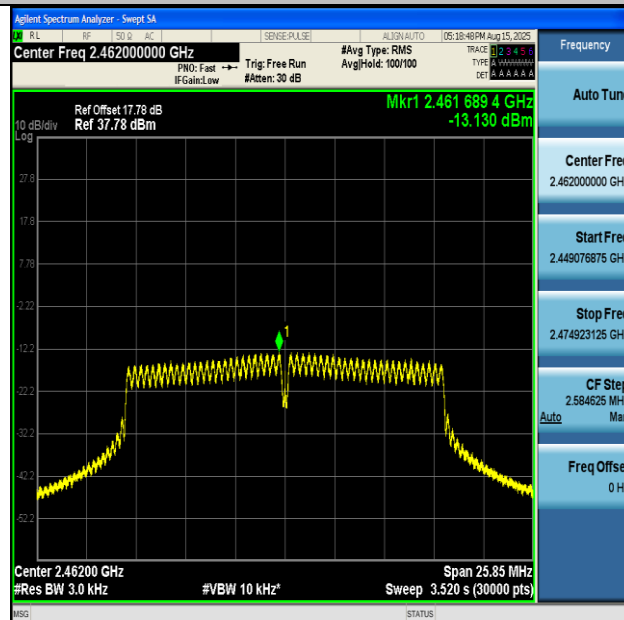
11B-Ant1-2462-PASS



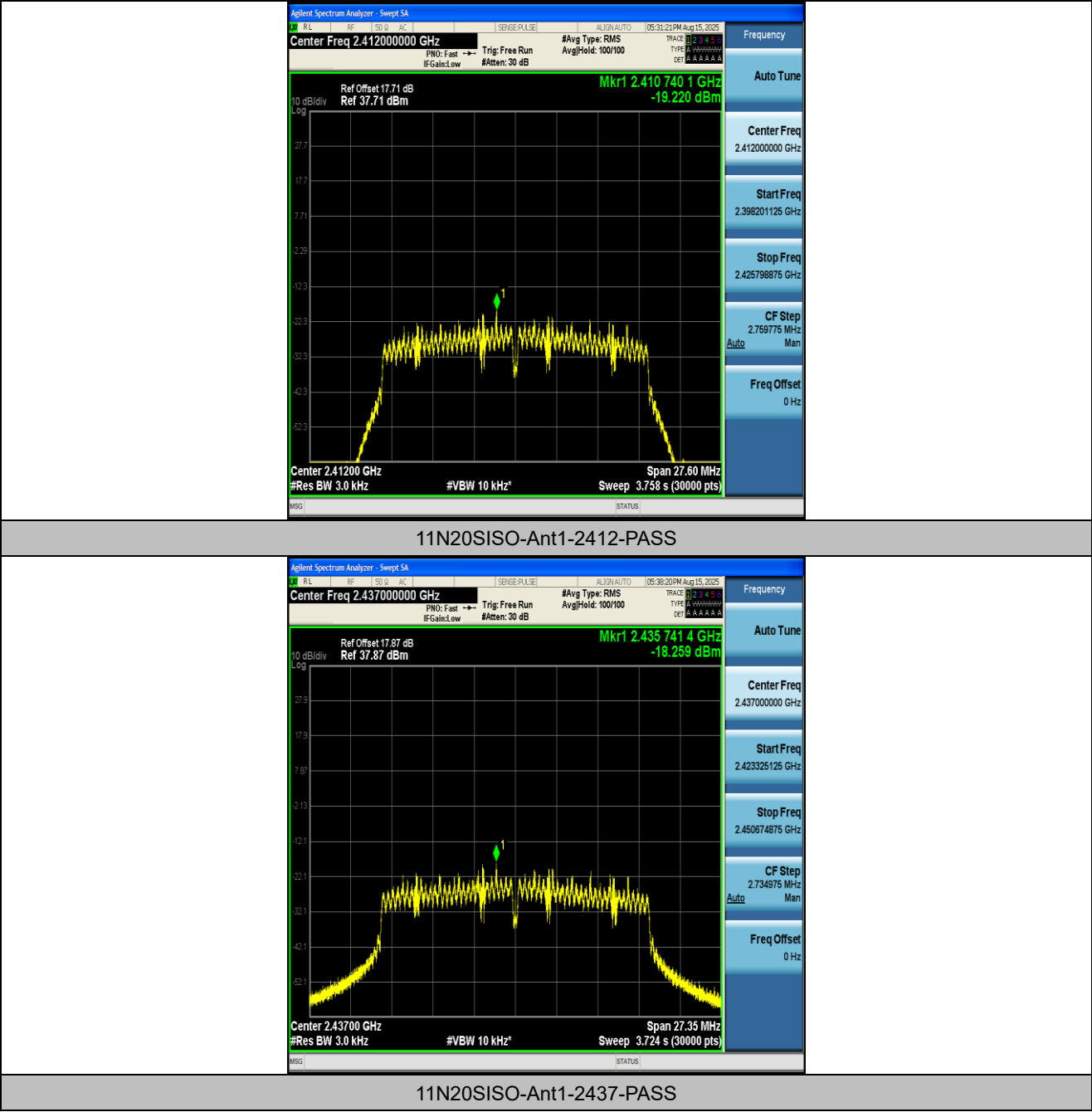
11G-Ant1-2412-PASS

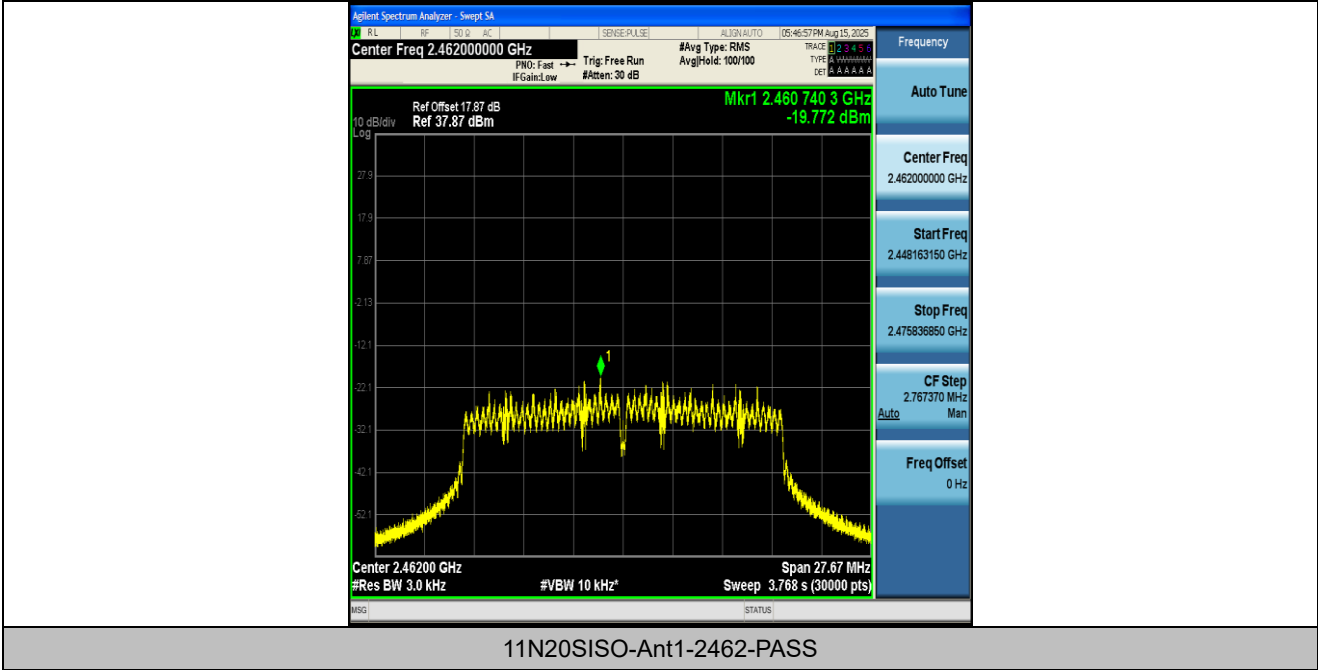


11G-Ant1-2437-PASS



11G-Ant1-2462-PASS





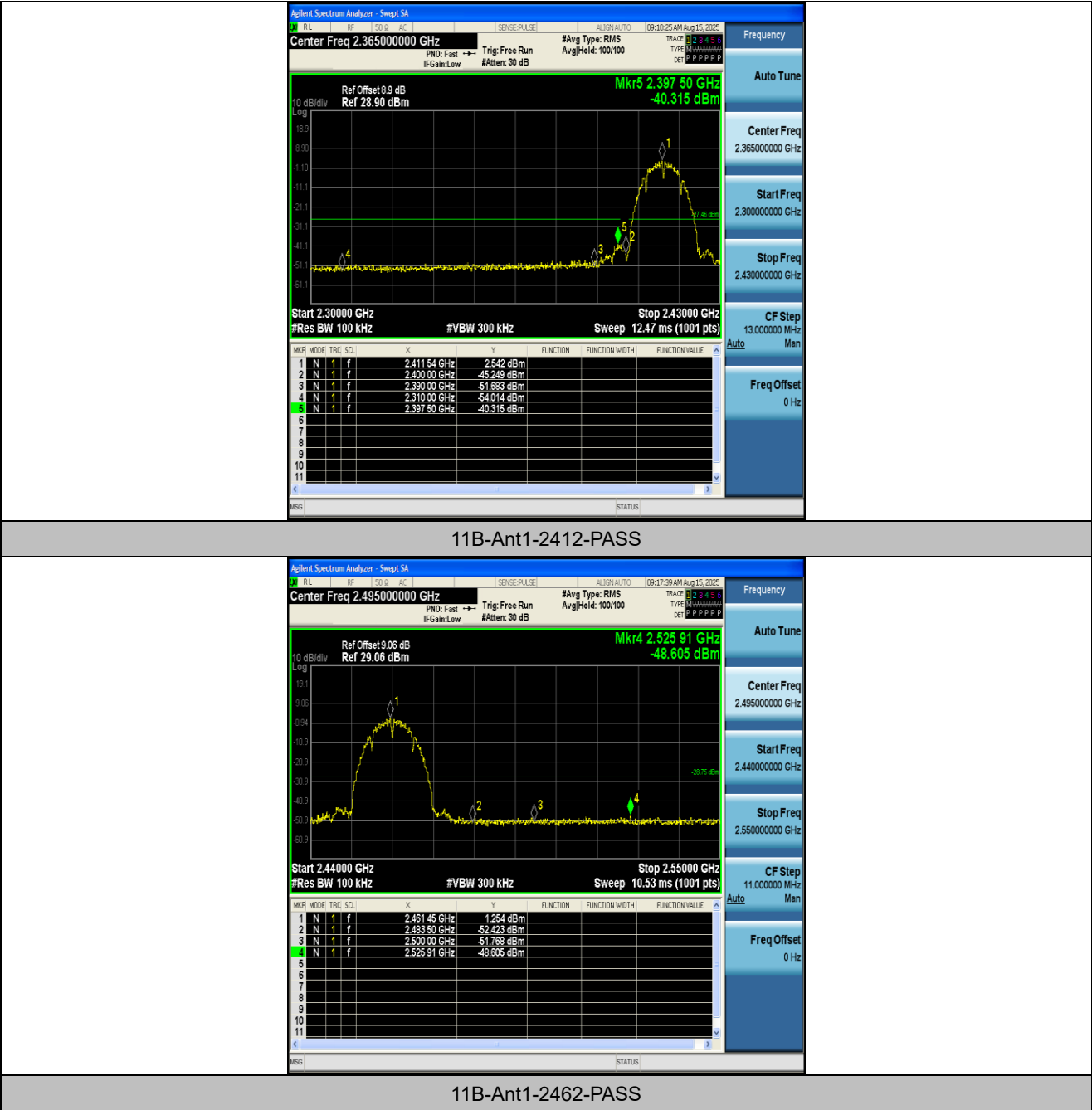
Appendix E: Band edge measurements

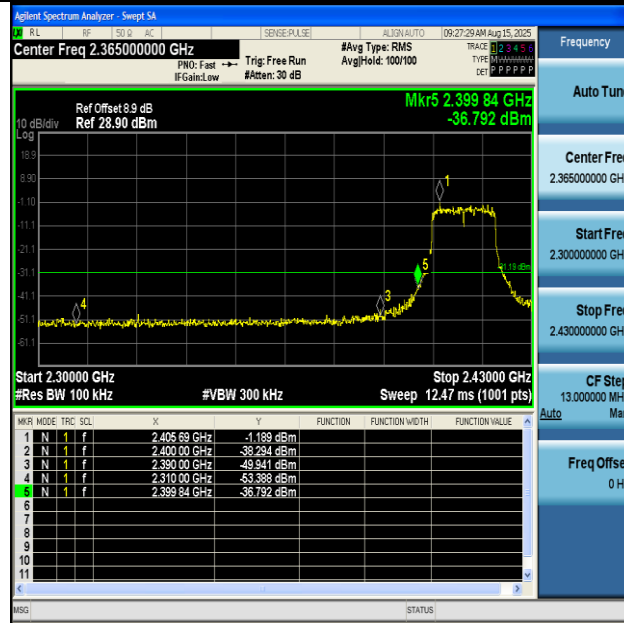
Test Result

Test Mode	Antenna	Ch. Name	Frequency.[MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	2.54	-40.32	≤-27.46	PASS
11B	Ant1	High	2462	1.25	-48.61	≤-28.75	PASS
11G	Ant1	Low	2412	-1.19	-36.79	≤-31.19	PASS
11G	Ant1	High	2462	-1.35	-47.76	≤-31.35	PASS
11N20SISO	Ant1	Low	2412	-1.32	-35.22	≤-31.32	PASS
11N20SISO	Ant1	High	2462	-1.89	-46.7	≤-31.89	PASS

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

Test Graphs

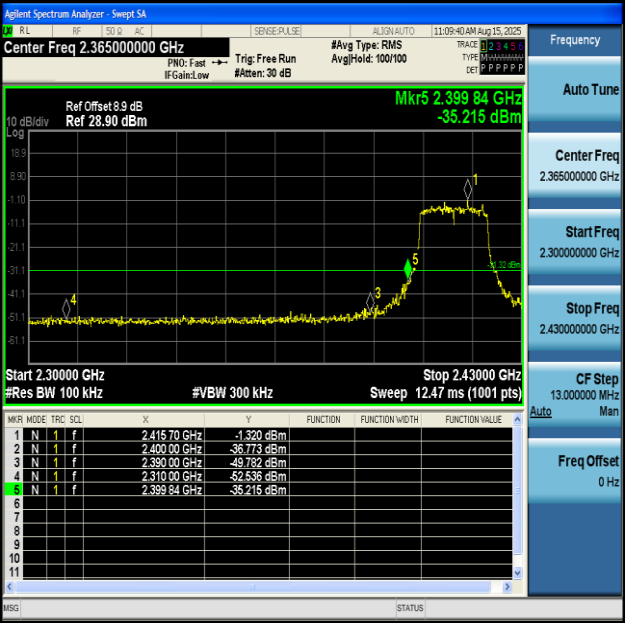




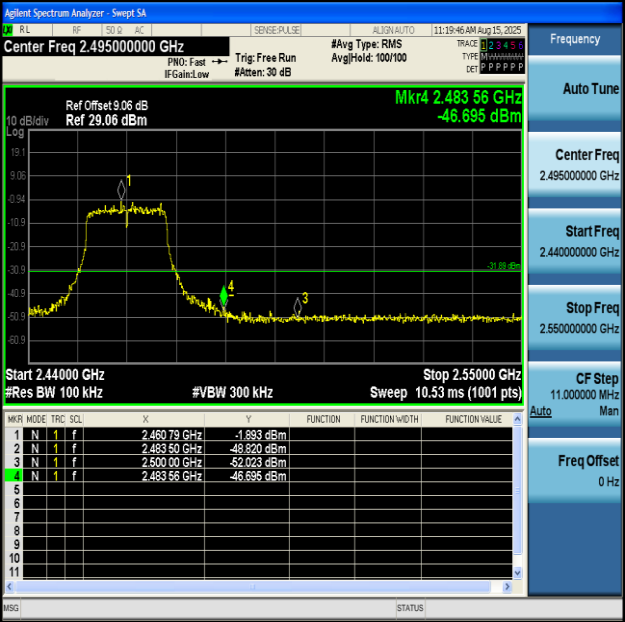
11G-Ant1-2412-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS

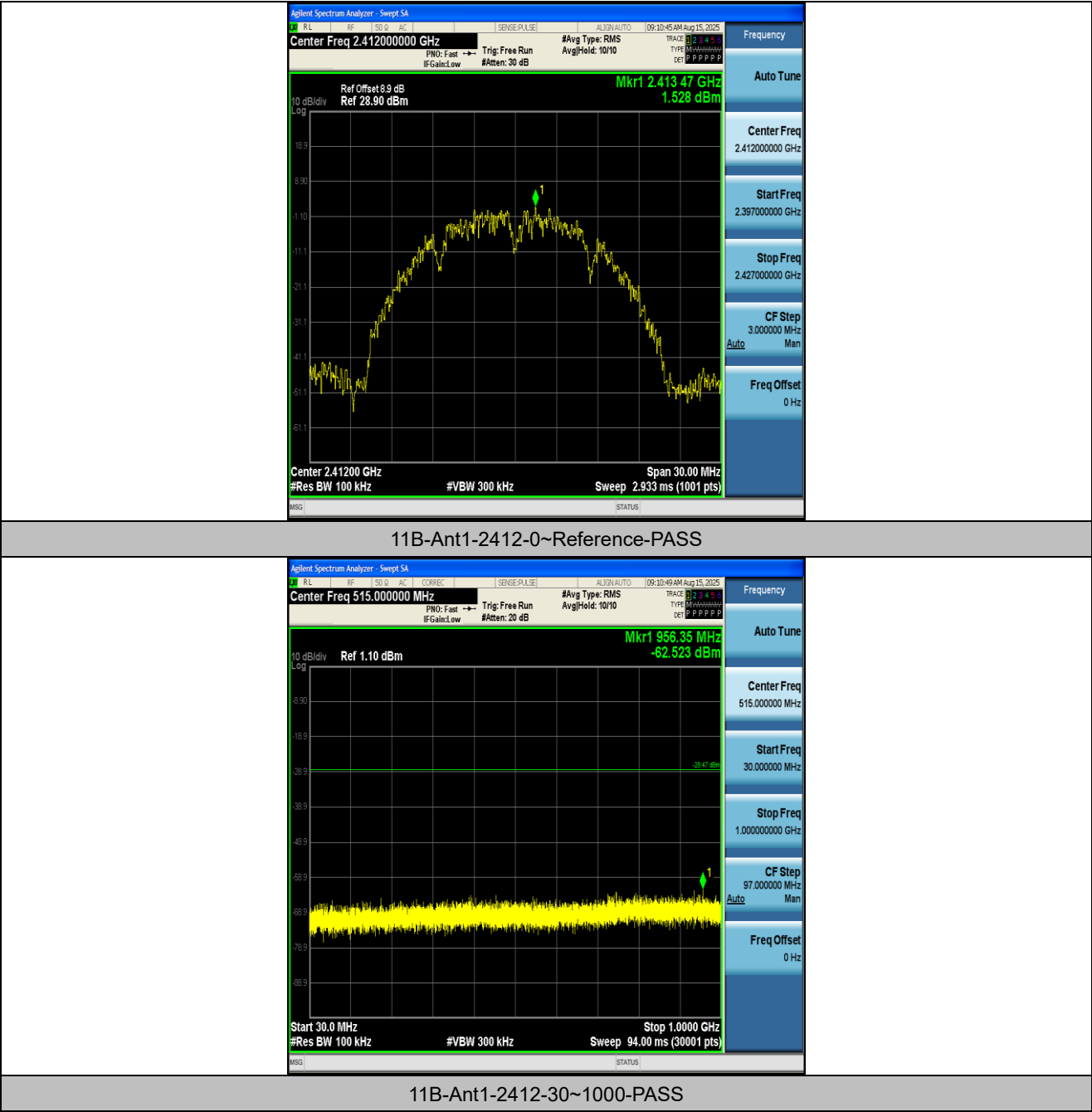
Appendix F: Conducted Spurious Emission

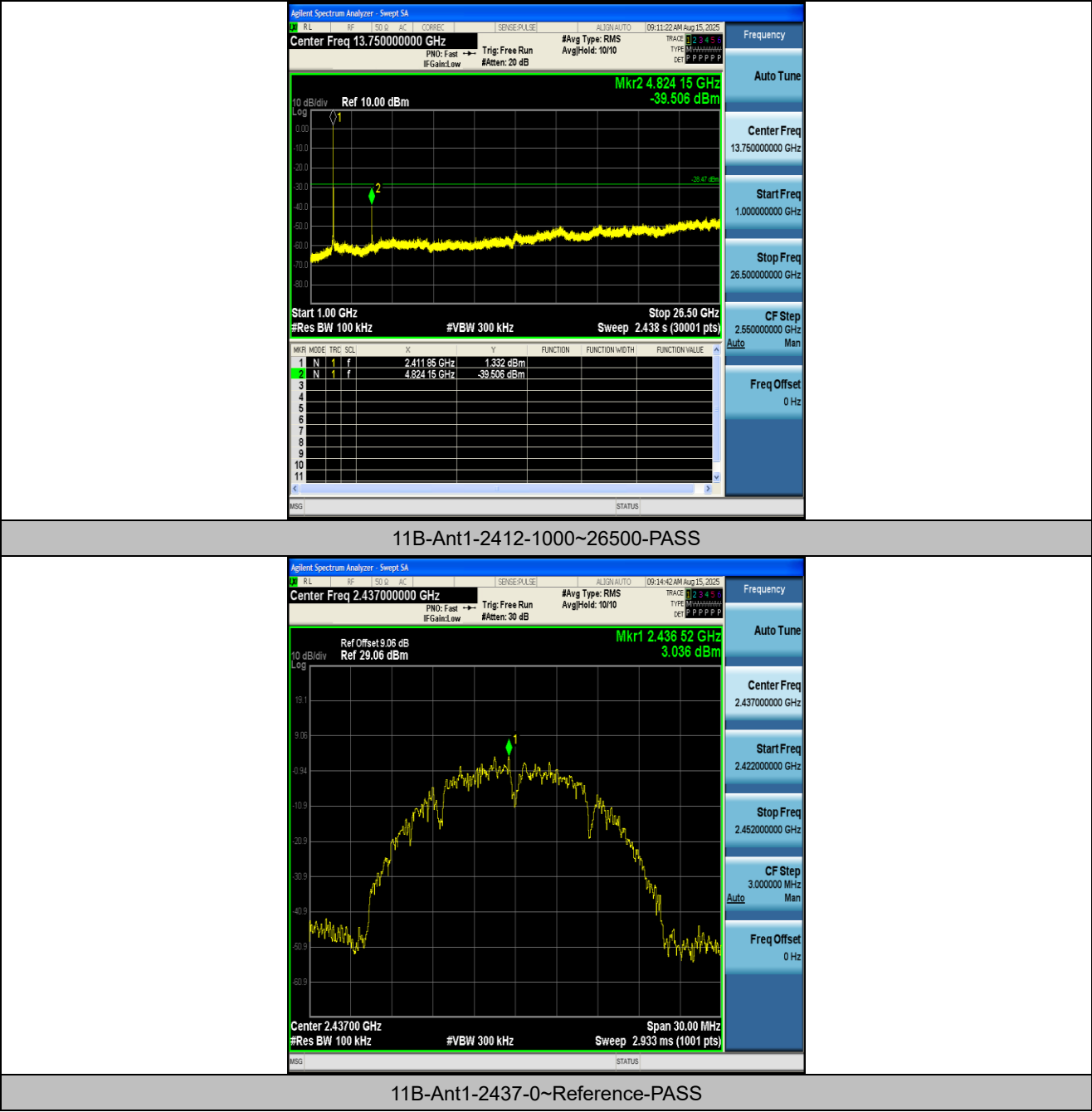
Test Result

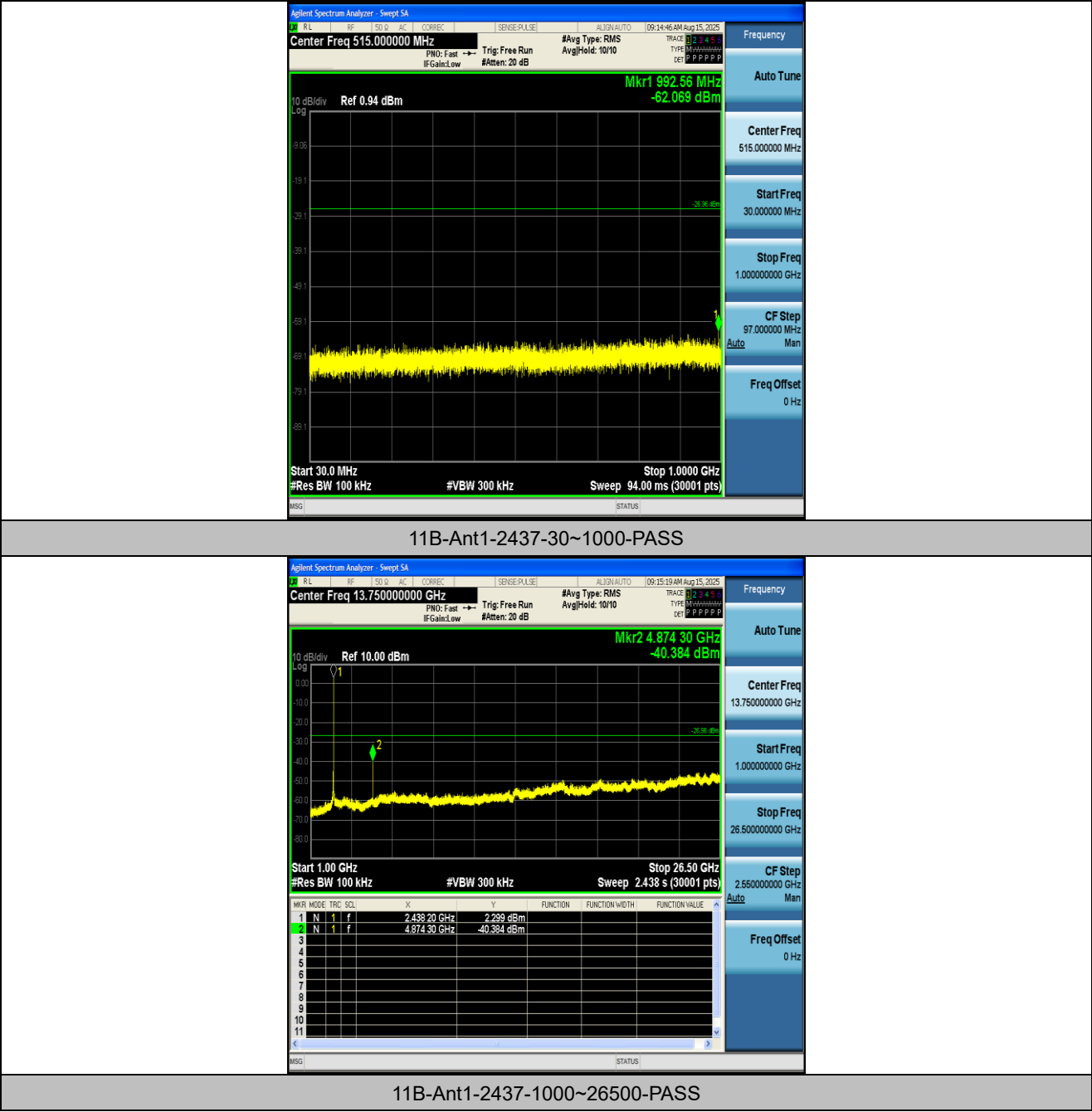
Test Mode	Antenna	Frequency [MHz]	Freq. Range [Mhz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	1.53	1.53	---	PASS
11B	Ant1	2412	30~1000	1.53	-62.52	≤-28.47	PASS
11B	Ant1	2412	1000~26500	1.53	-39.51	≤-28.47	PASS
11B	Ant1	2437	0~Reference	3.04	3.04	---	PASS
11B	Ant1	2437	30~1000	3.04	-62.07	≤-26.96	PASS
11B	Ant1	2437	1000~26500	3.04	-40.38	≤-26.96	PASS
11B	Ant1	2462	0~Reference	0.51	0.51	---	PASS
11B	Ant1	2462	30~1000	0.51	-63.11	≤-29.49	PASS
11B	Ant1	2462	1000~26500	0.51	-41.97	≤-29.49	PASS
11G	Ant1	2412	0~Reference	-1.82	-1.82	---	PASS
11G	Ant1	2412	30~1000	-1.82	-72.39	≤-31.82	PASS
11G	Ant1	2412	1000~26500	-1.82	-55.64	≤-31.82	PASS
11G	Ant1	2437	0~Reference	-3.81	-3.81	---	PASS
11G	Ant1	2437	30~1000	-3.81	-62.86	≤-33.81	PASS
11G	Ant1	2437	1000~26500	-3.81	-45.17	≤-33.81	PASS
11G	Ant1	2462	0~Reference	-4.81	-4.81	---	PASS
11G	Ant1	2462	30~1000	-4.81	-62.47	≤-34.81	PASS
11G	Ant1	2462	1000~26500	-4.81	-45.4	≤-34.81	PASS
11N20SISO	Ant1	2412	0~Reference	-3.40	-3.40	---	PASS
11N20SISO	Ant1	2412	30~1000	-3.40	-61.66	≤-33.4	PASS
11N20SISO	Ant1	2412	1000~26500	-3.40	-45.38	≤-33.4	PASS
11N20SISO	Ant1	2437	0~Reference	-4.27	-4.27	---	PASS
11N20SISO	Ant1	2437	30~1000	-4.27	-62.59	≤-34.27	PASS
11N20SISO	Ant1	2437	1000~26500	-4.27	-45.24	≤-34.27	PASS
11N20SISO	Ant1	2462	0~Reference	-6.68	-6.68	---	PASS
11N20SISO	Ant1	2462	30~1000	-6.68	-63	≤-36.68	PASS
11N20SISO	Ant1	2462	1000~26500	-6.68	-45.18	≤-36.68	PASS

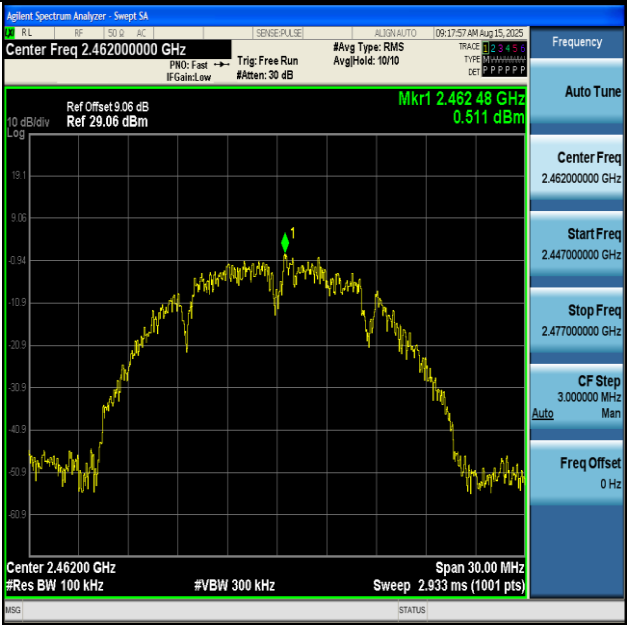
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.

Test Graphs

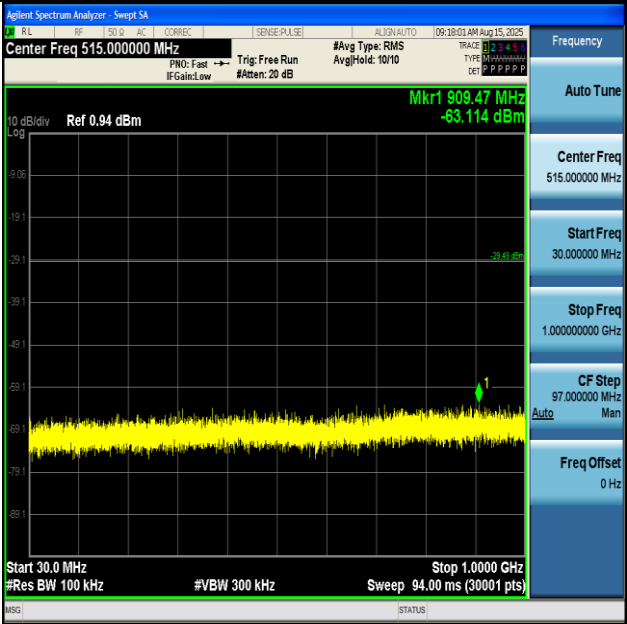




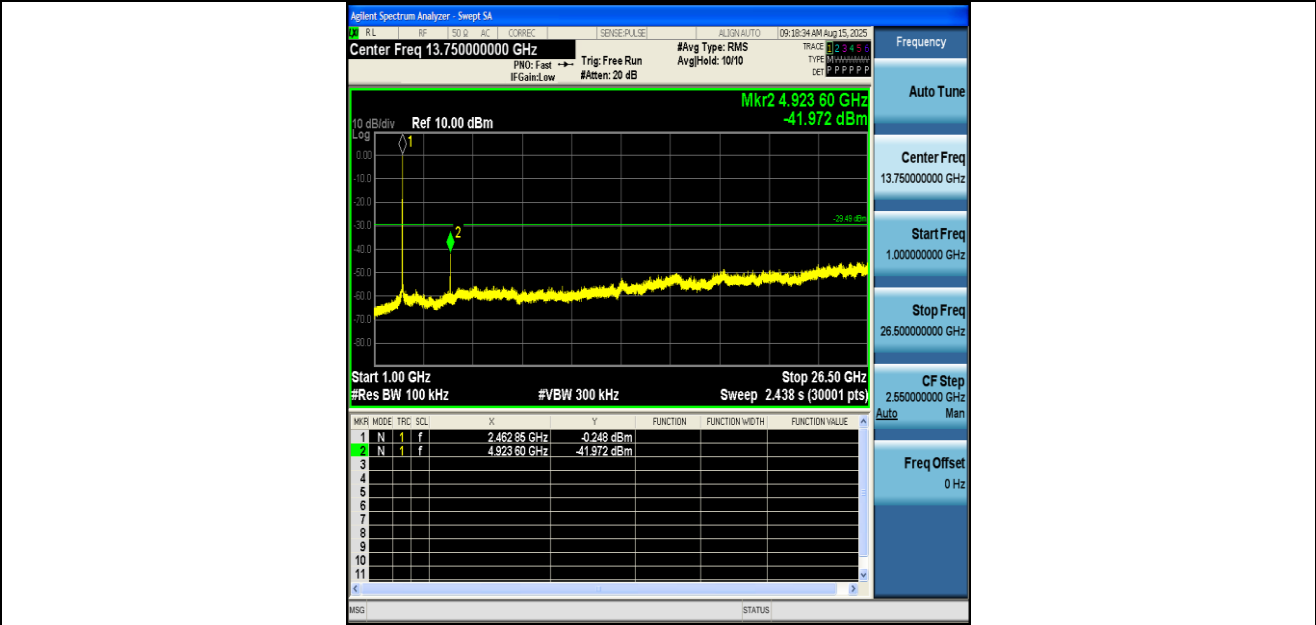




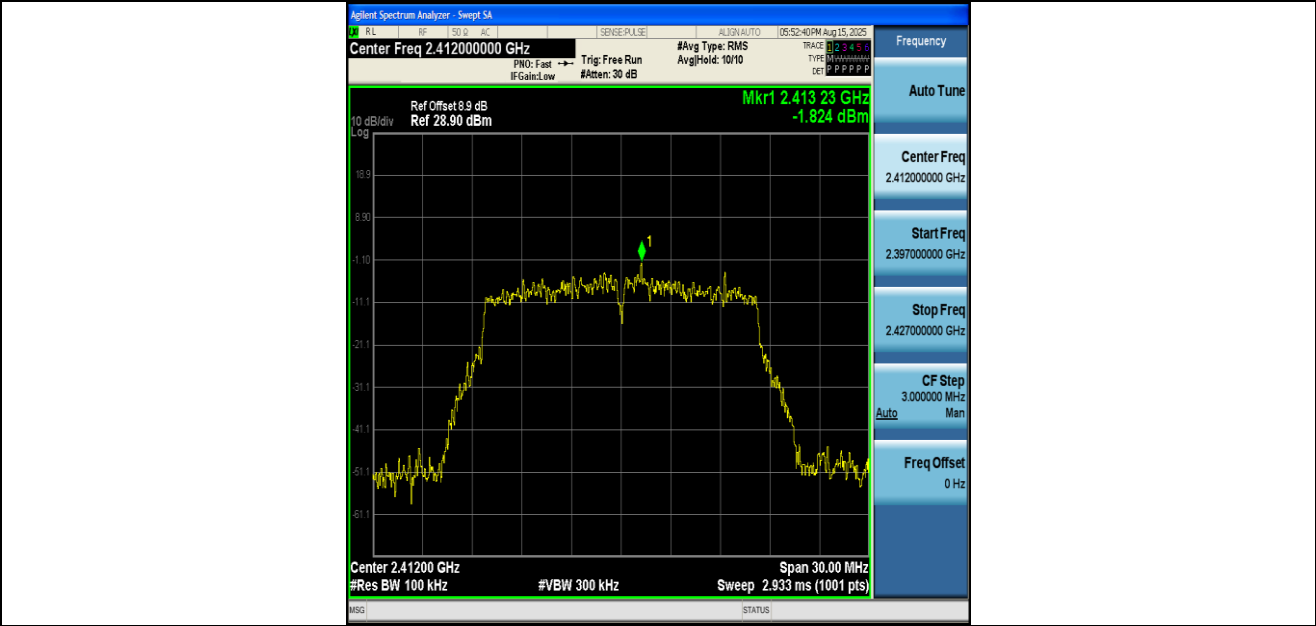
11B-Ant1-2462-0~Reference-PASS



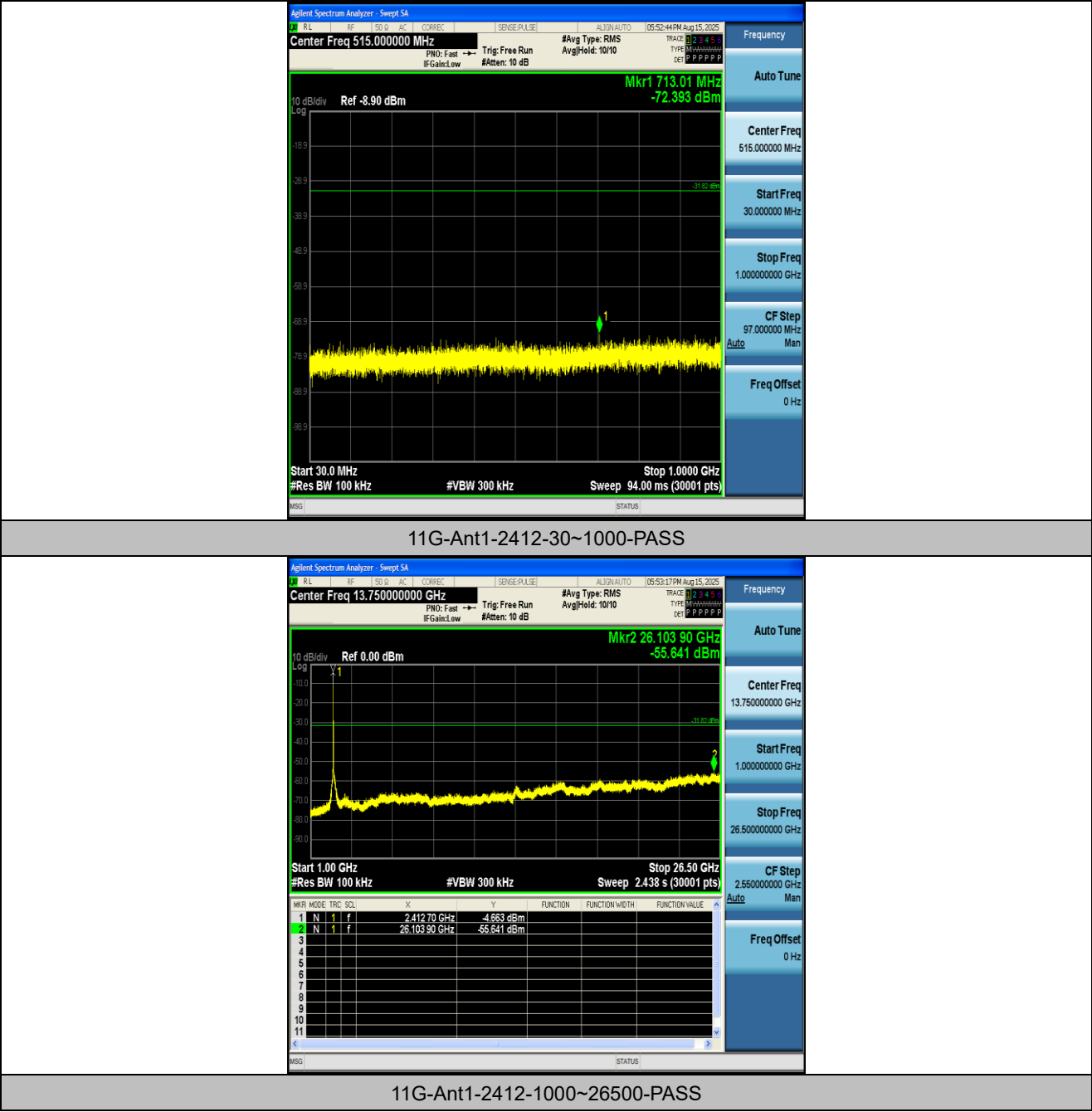
11B-Ant1-2462-30~1000-PASS

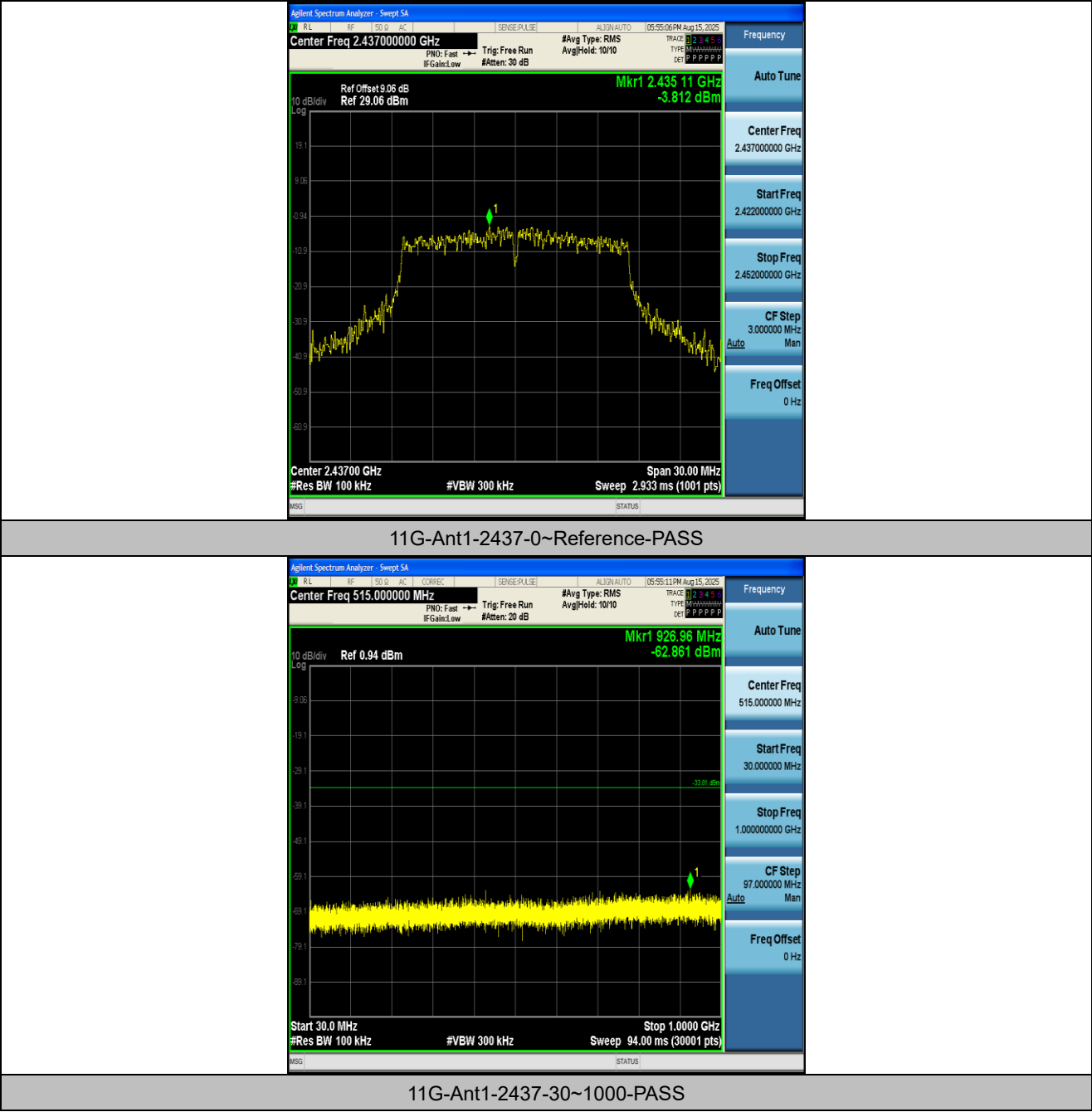


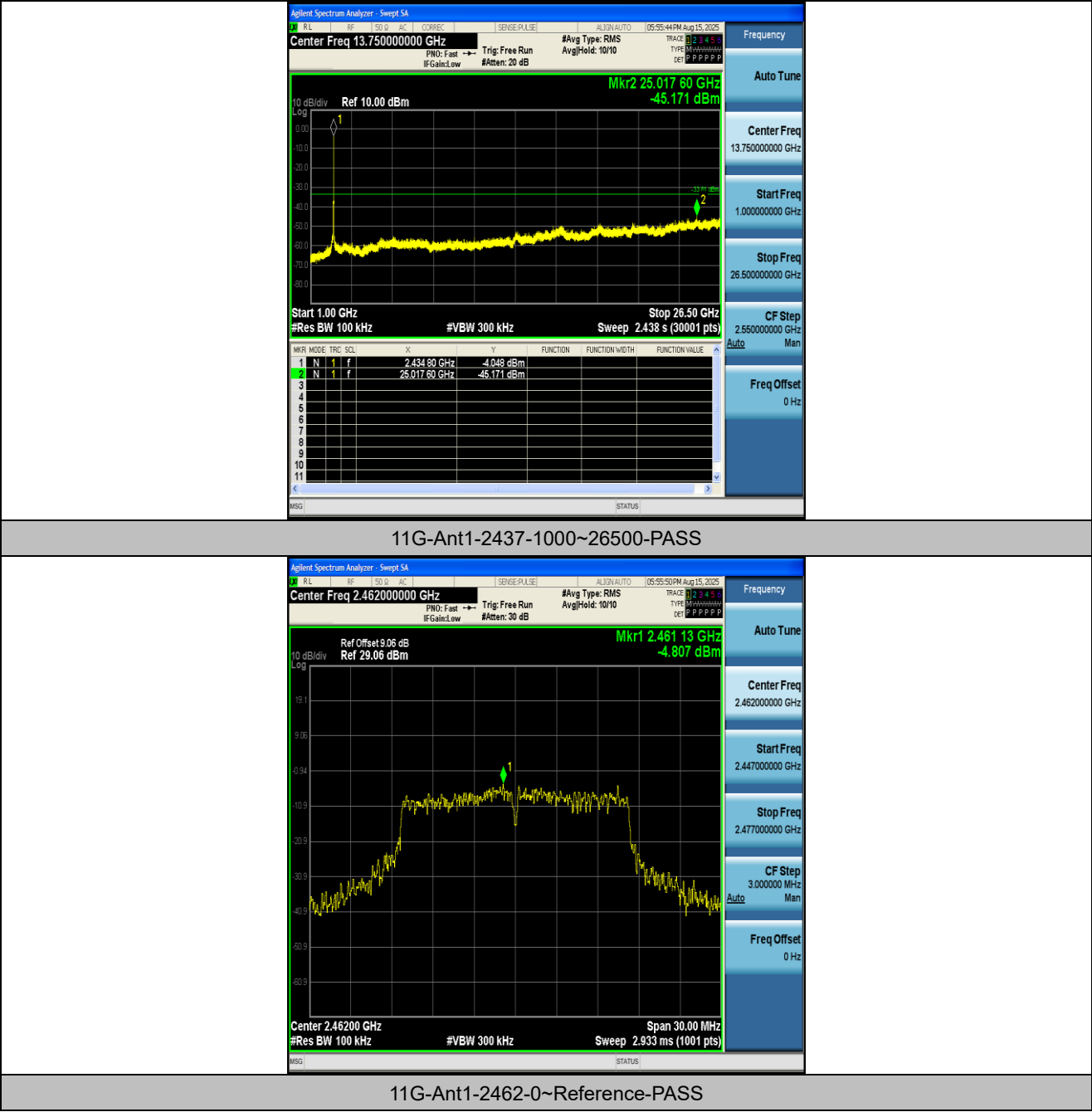
11B-Ant1-2462-1000~26500-PASS

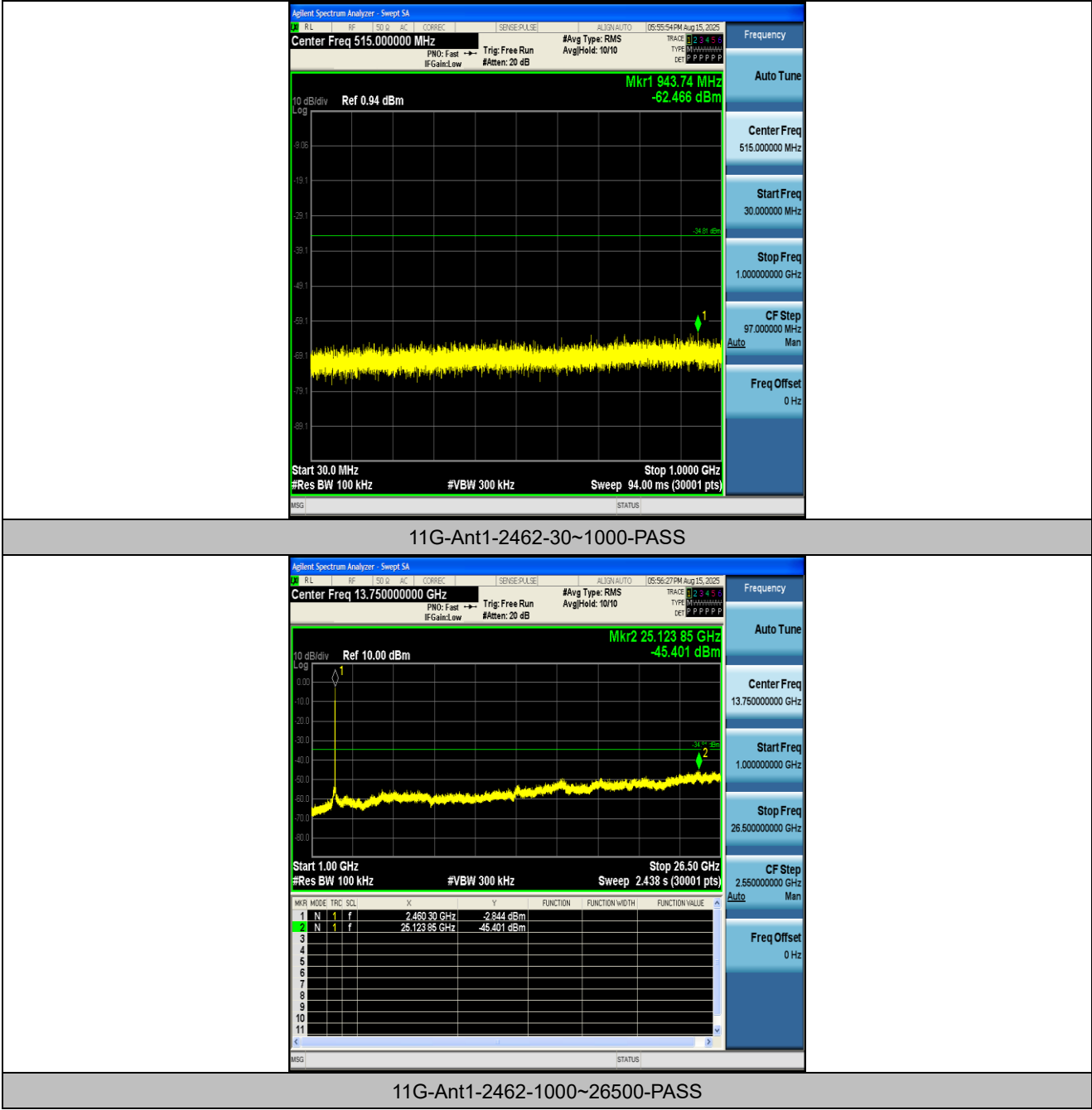


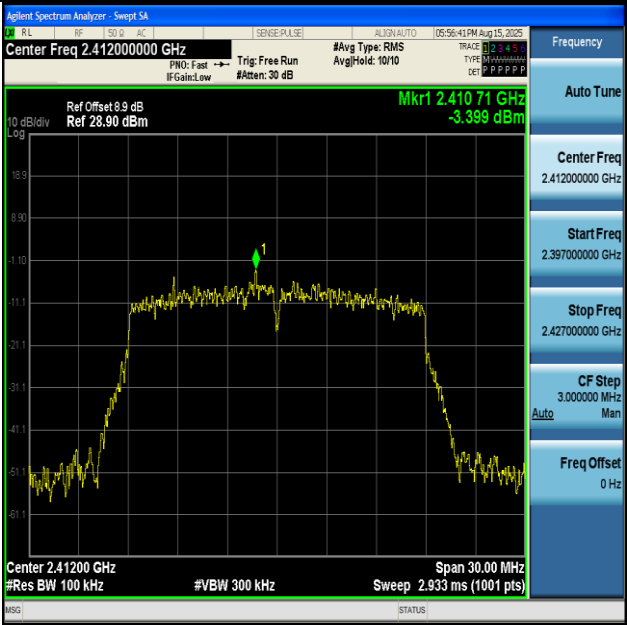
11G-Ant1-2412-0~Reference-PASS



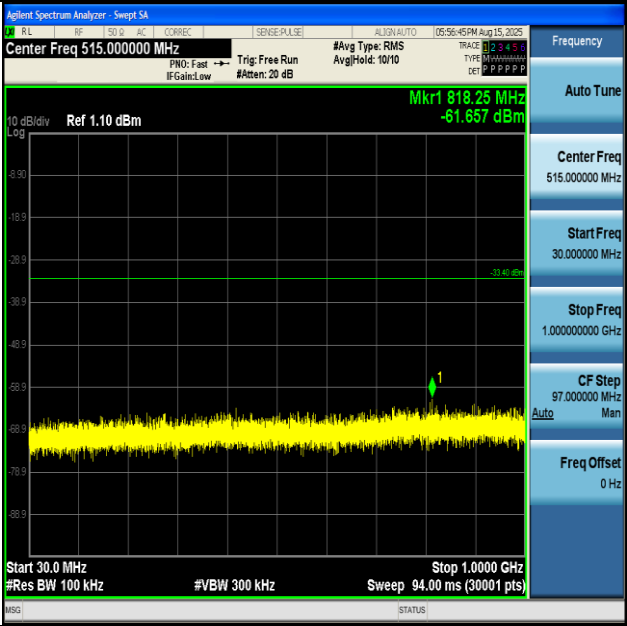




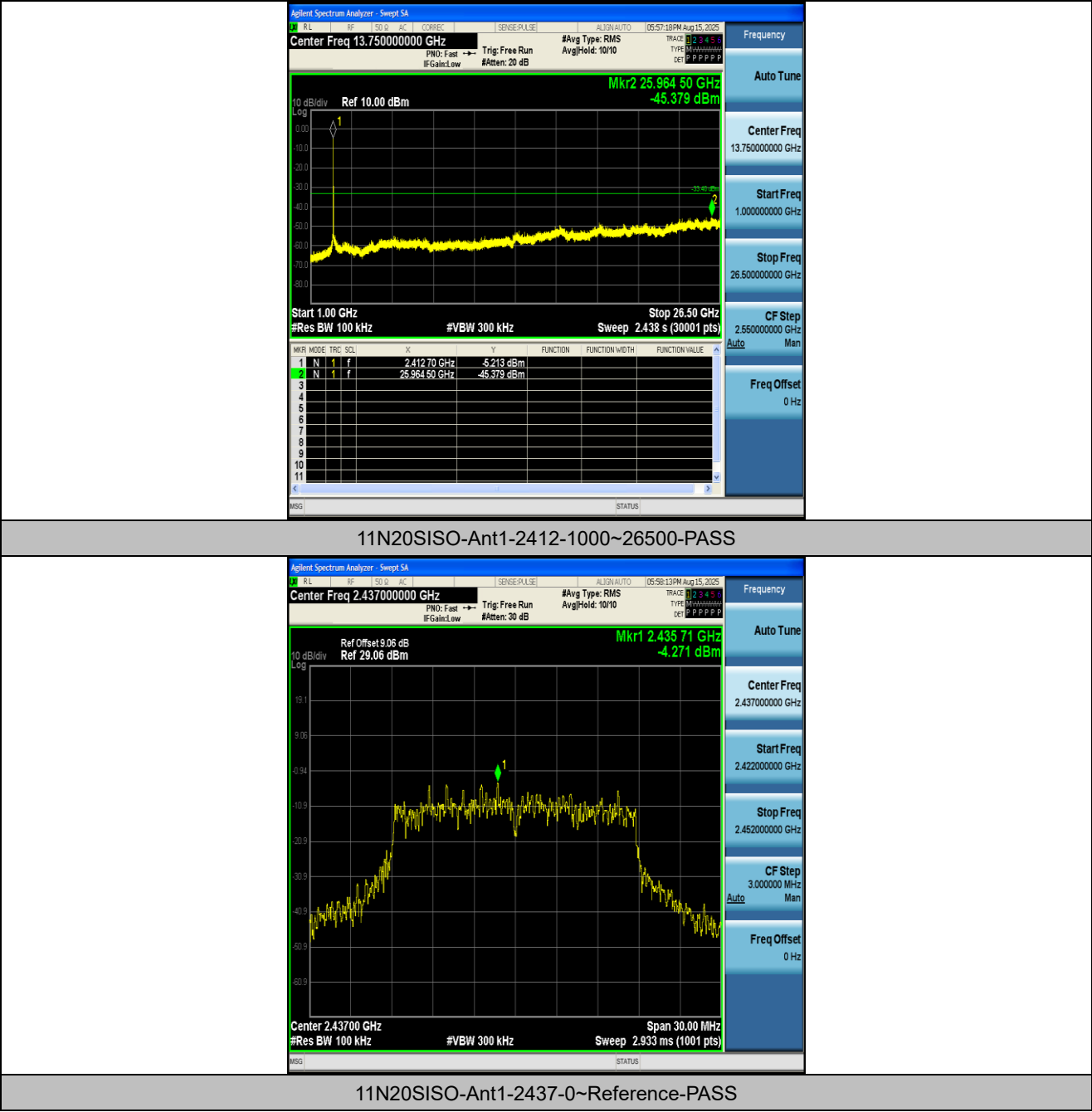


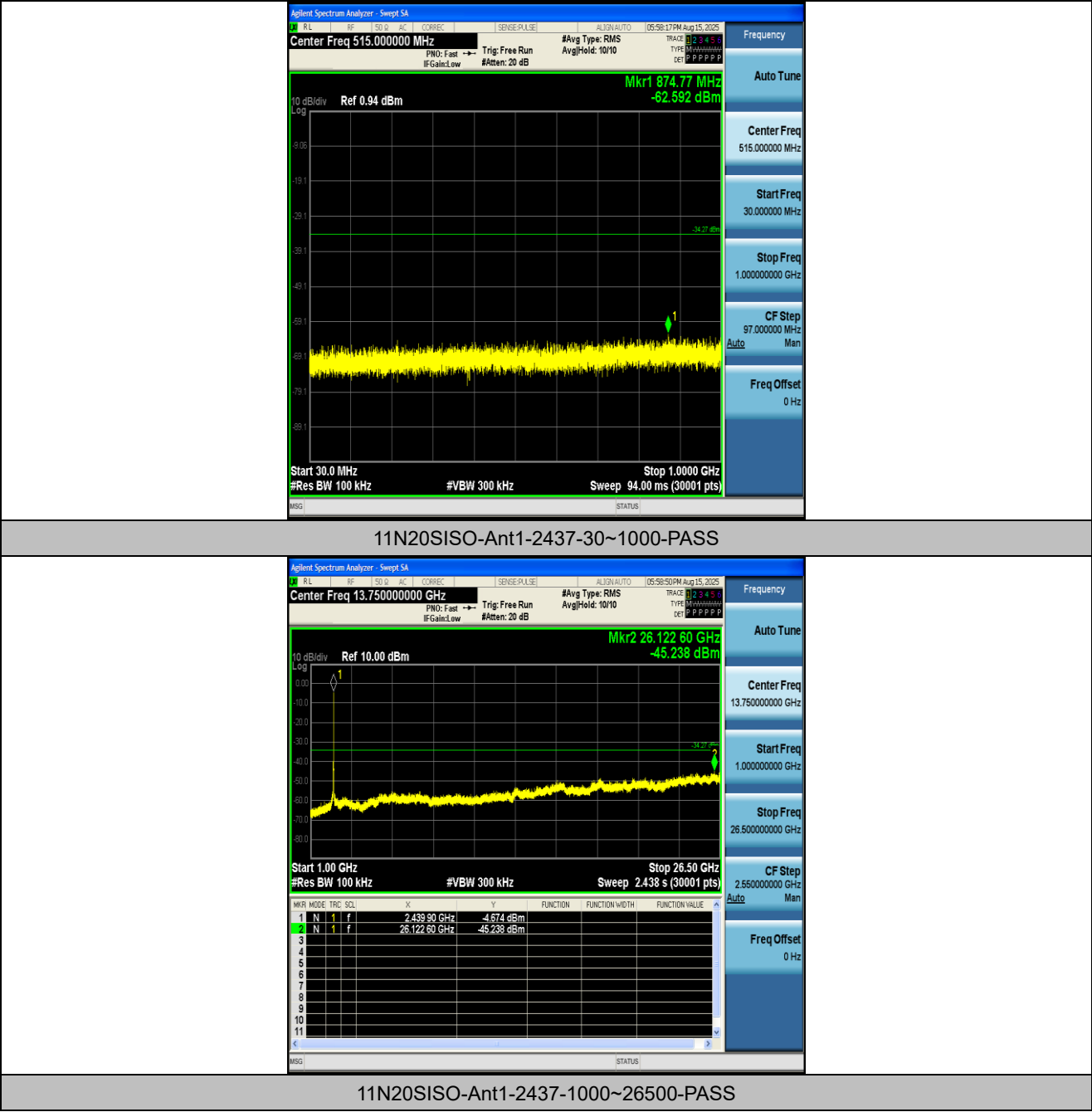


11N20SISO-Ant1-2412-0~Reference-PASS



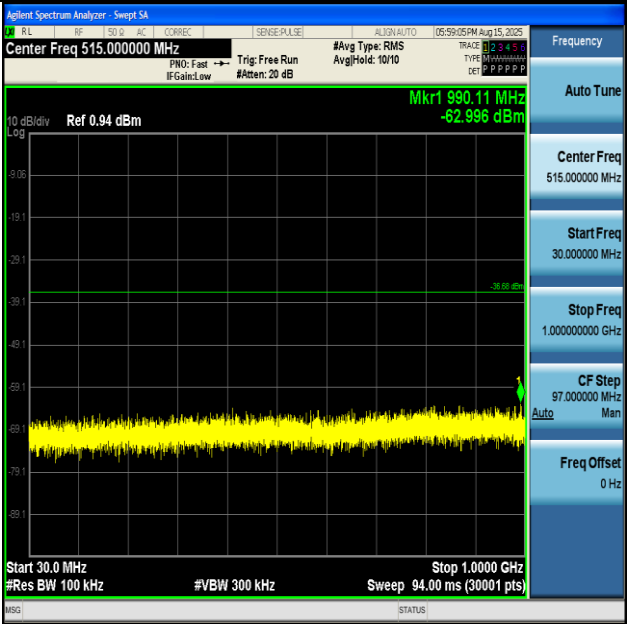
11N20SISO-Ant1-2412-30~1000-PASS



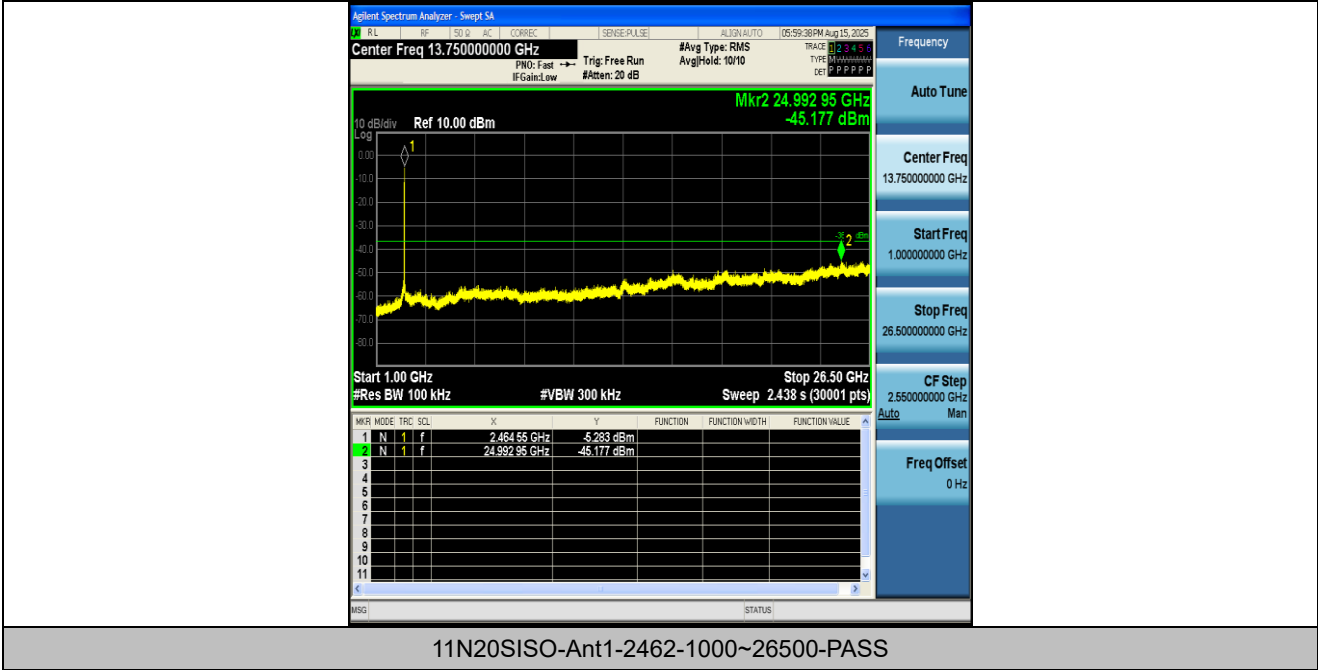




11N20SISO-Ant1-2462-0~Reference-PASS



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



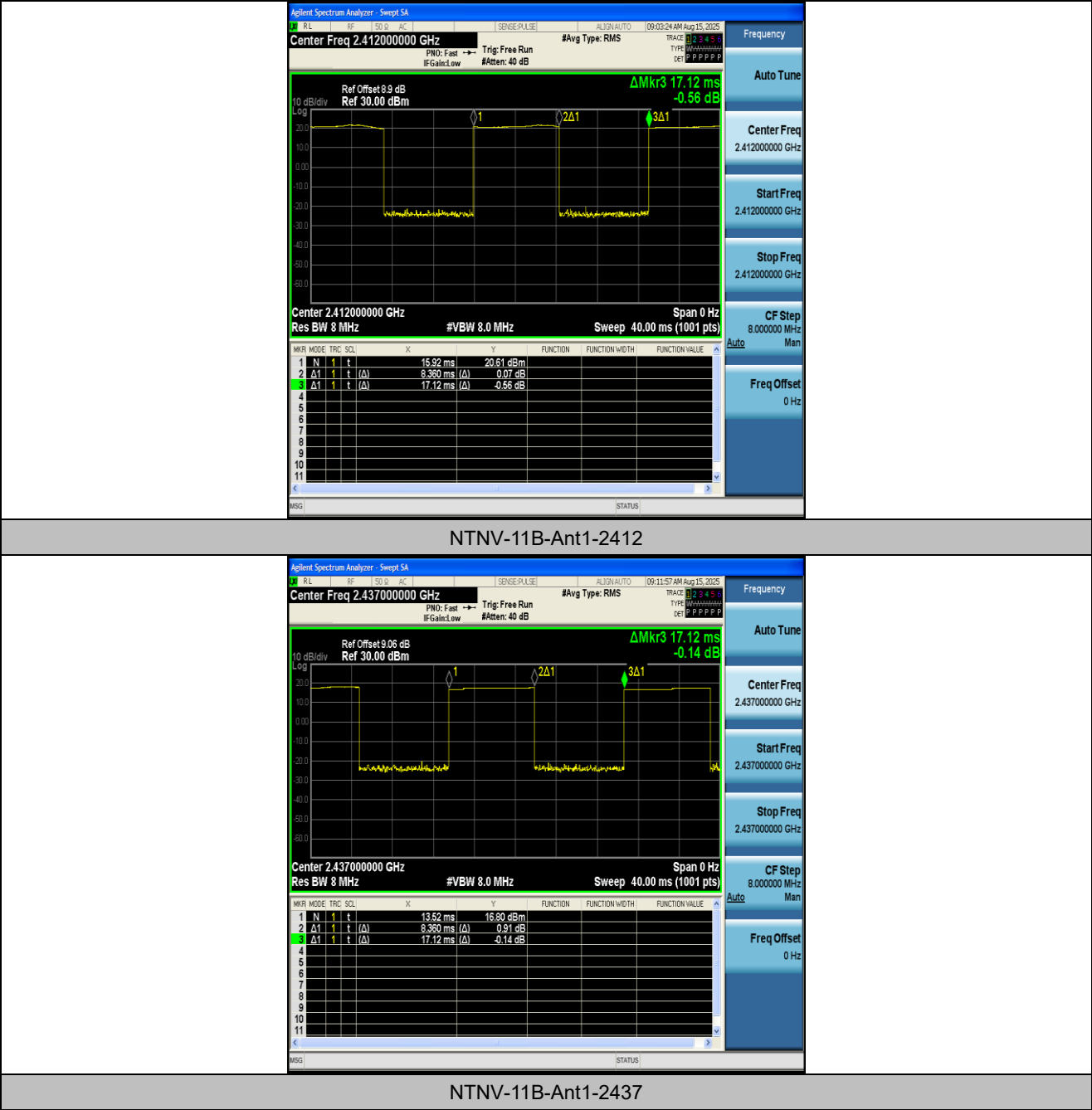
Appendix G: Duty Cycle

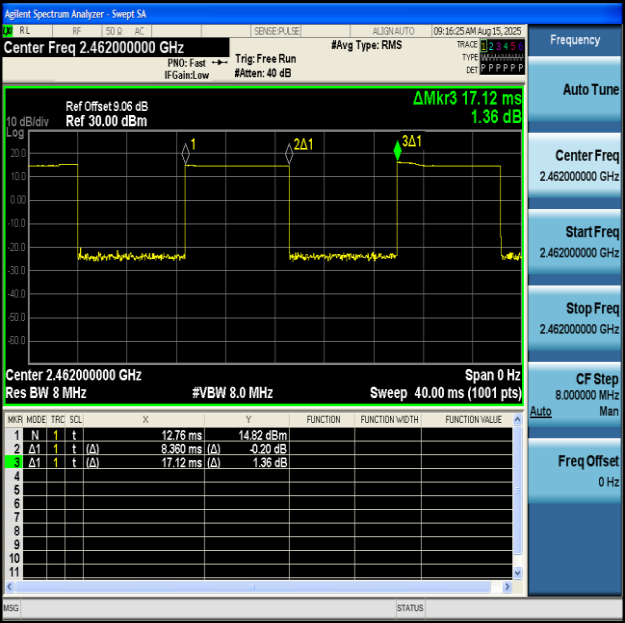
Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	8.36	17.12	48.83	3.11
11B	Ant1	2437	8.36	17.12	48.83	3.11
11B	Ant1	2462	8.36	17.12	48.83	3.11
11G	Ant1	2412	1.40	10.16	13.78	8.61
11G	Ant1	2437	1.36	10.12	13.44	8.72
11G	Ant1	2462	1.36	10.12	13.44	8.72
11N20SISO	Ant1	2412	1.32	10.04	13.15	8.81
11N20SISO	Ant1	2437	1.32	10.04	13.15	8.81
11N20SISO	Ant1	2462	1.32	10.04	13.15	8.81

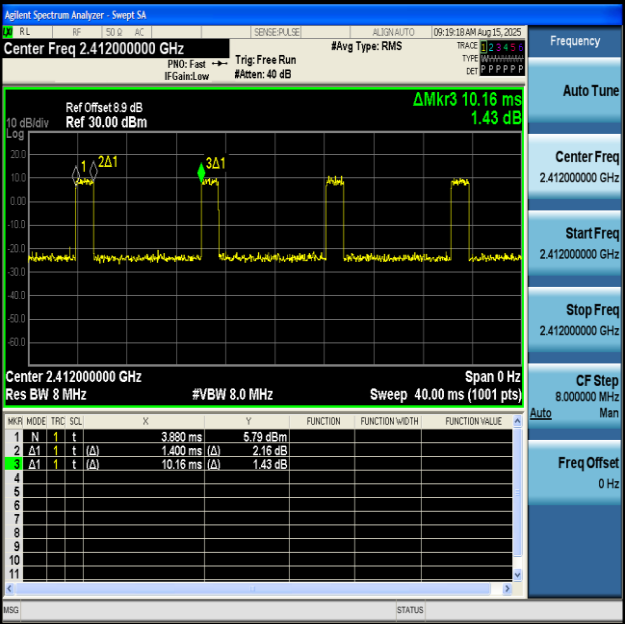
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)

Test Graphs

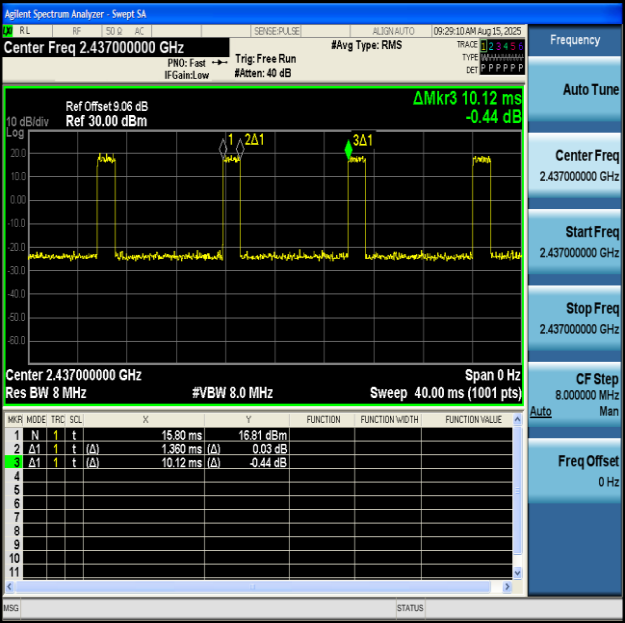




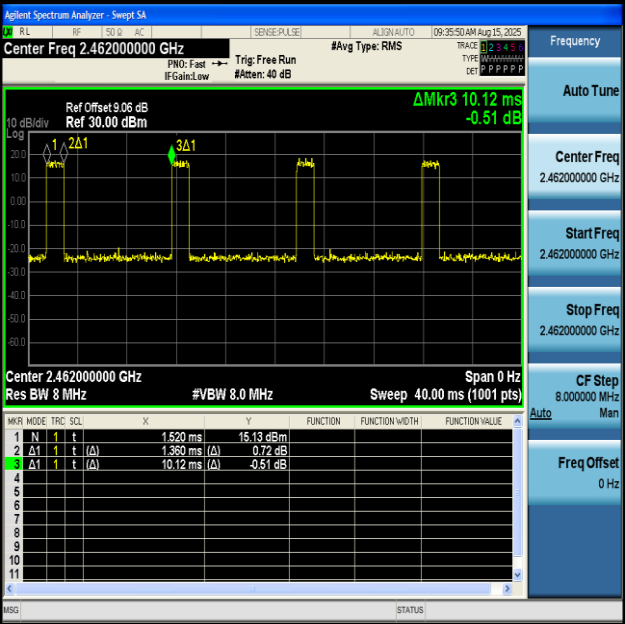
NTNV-11B-Ant1-2462



NTNV-11G-Ant1-2412



NTNV-11G-Ant1-2437



NTNV-11G-Ant1-2462

