

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

Product Name: Smart Cat Litter Box

Trade Mark: /

Test Model: Paw101

FCC ID: 2AMVV-PAW101

Environmental Conditions

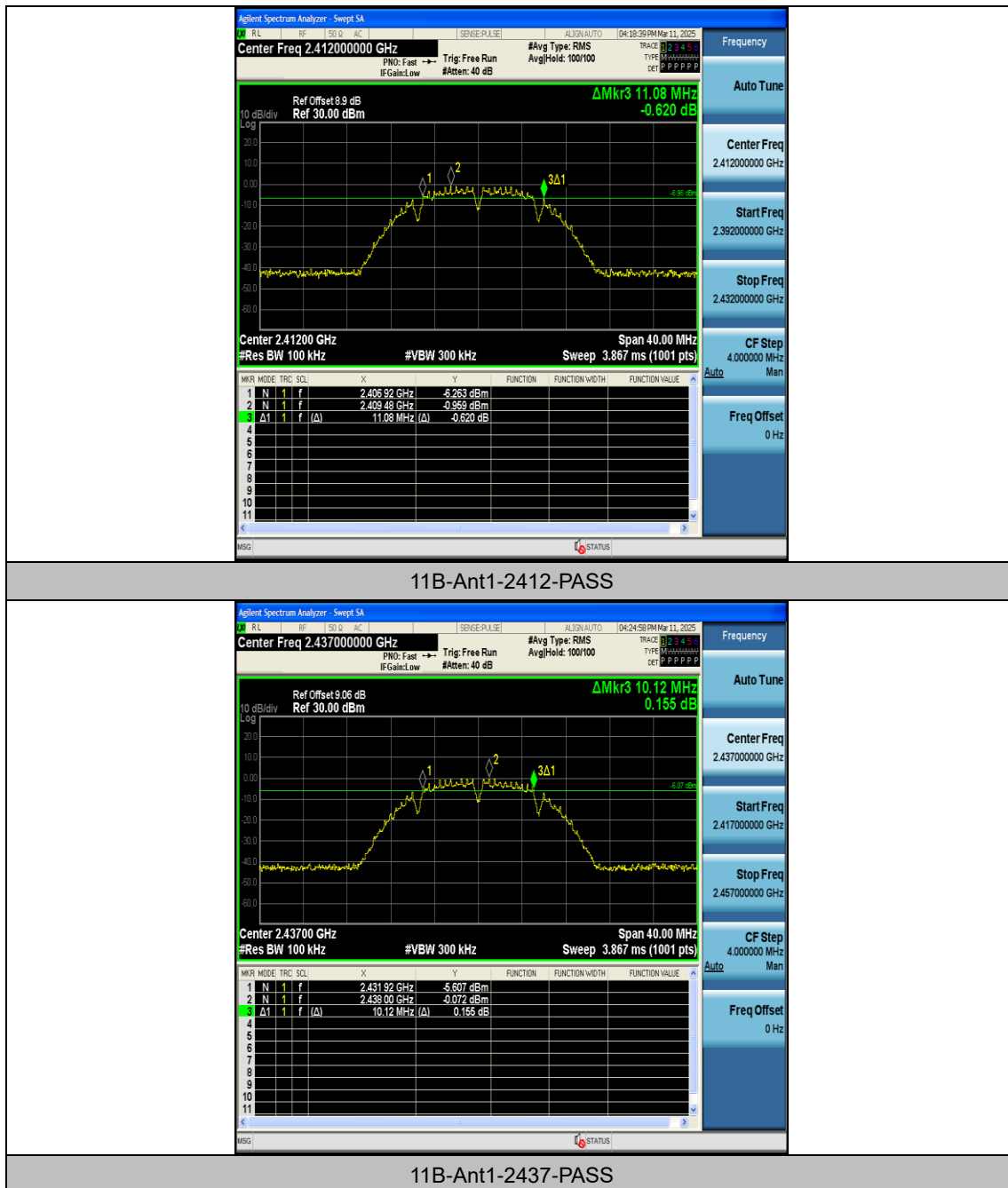
Temperature:	23.5℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

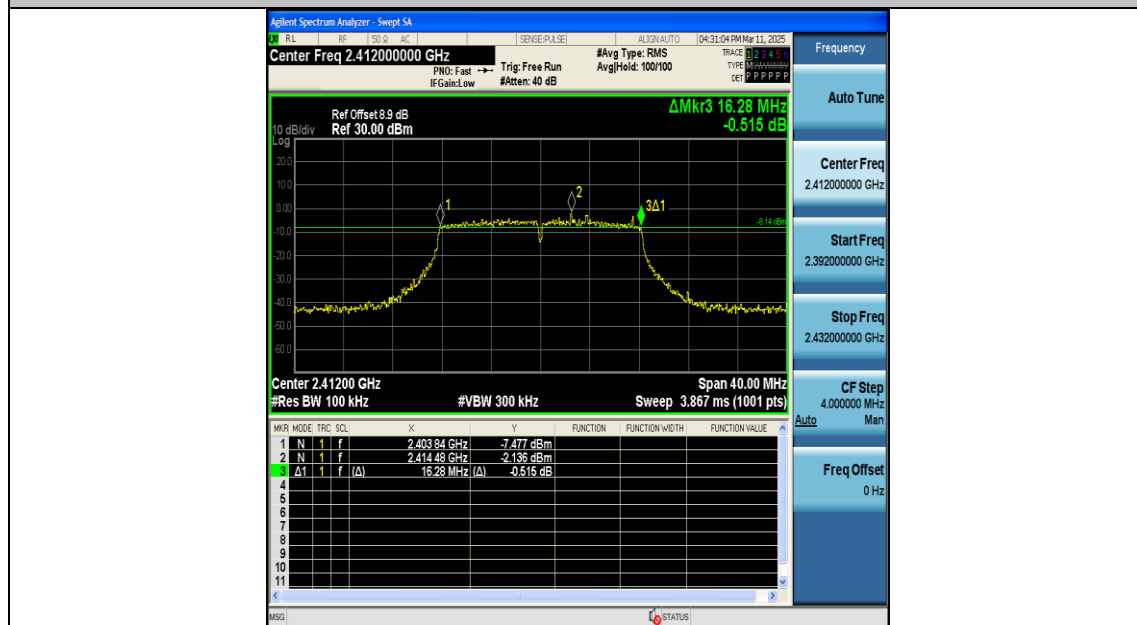
Test Mode	Antenna	Frequency [MHz]	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	11.080	2406.920	2418.000	0.5	PASS
11B	Ant1	2437	10.120	2431.920	2442.040	0.5	PASS
11B	Ant1	2462	10.080	2456.960	2467.040	0.5	PASS
11G	Ant1	2412	16.280	2403.840	2420.120	0.5	PASS
11G	Ant1	2437	15.680	2429.200	2444.880	0.5	PASS
11G	Ant1	2462	16.400	2453.800	2470.200	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
11N20SISO	Ant1	2437	14.160	2428.840	2443.000	0.5	PASS
11N20SISO	Ant1	2462	15.880	2454.440	2470.320	0.5	PASS
11N40SISO	Ant1	2422	33.840	2404.480	2438.320	0.5	PASS
11N40SISO	Ant1	2437	35.040	2419.480	2454.520	0.5	PASS
11N40SISO	Ant1	2452	35.120	2434.400	2469.520	0.5	PASS

Test Graphs





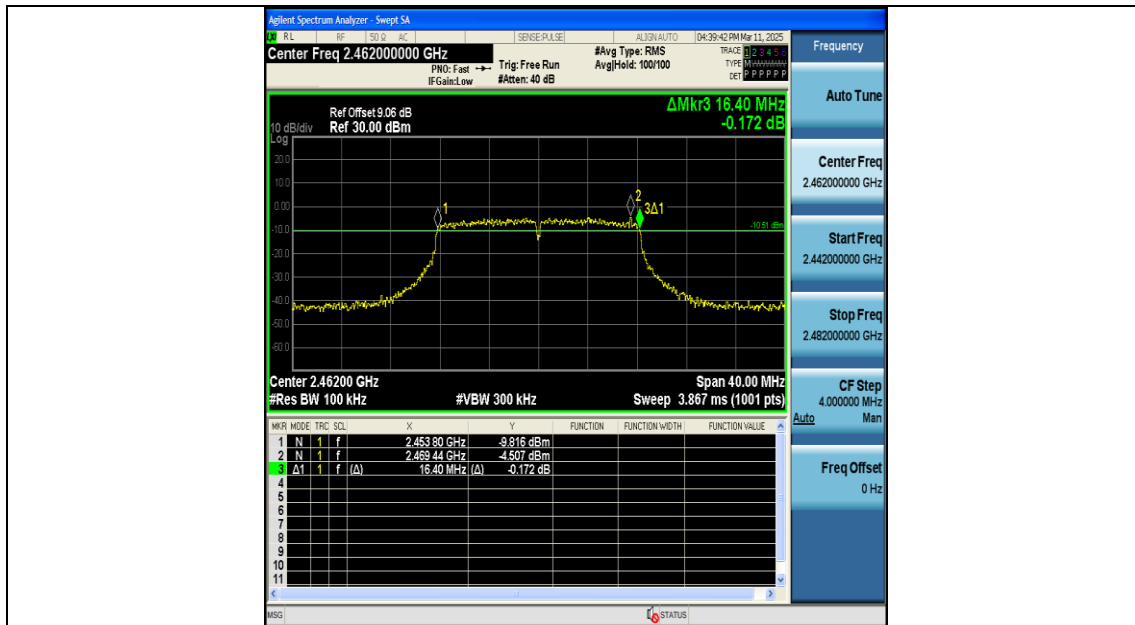
11B-Ant1-2462-PASS



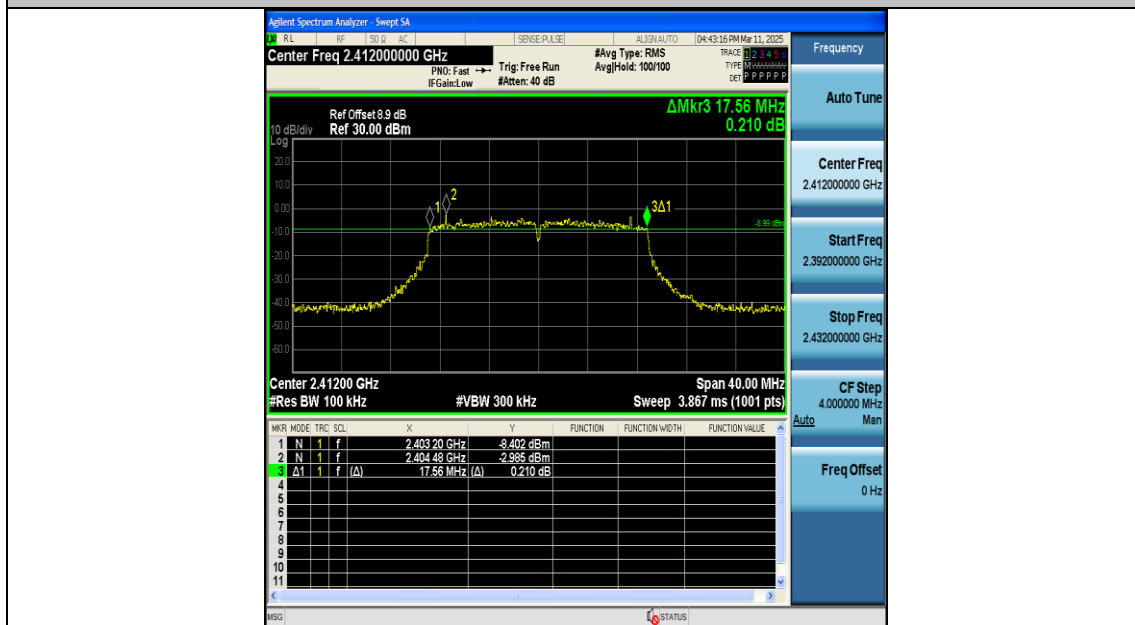
11G-Ant1-2412-PASS



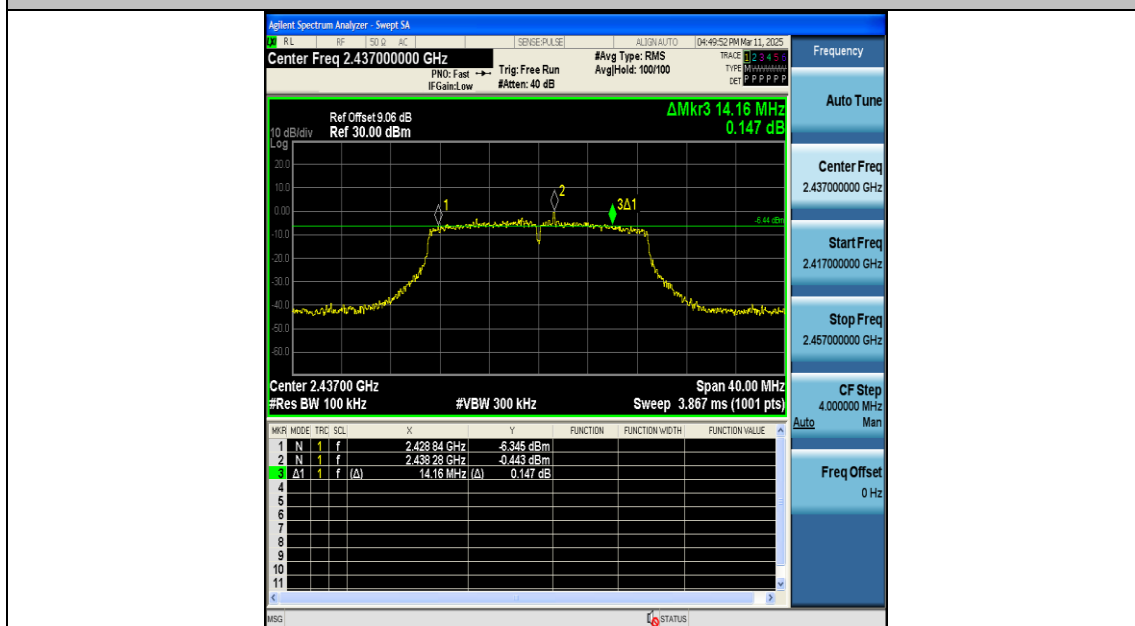
11G-Ant1-2437-PASS



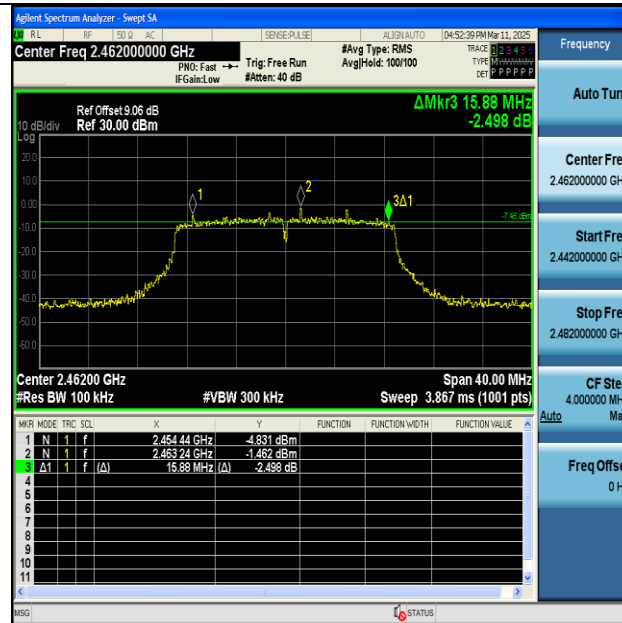
11G-Ant1-2462-PASS



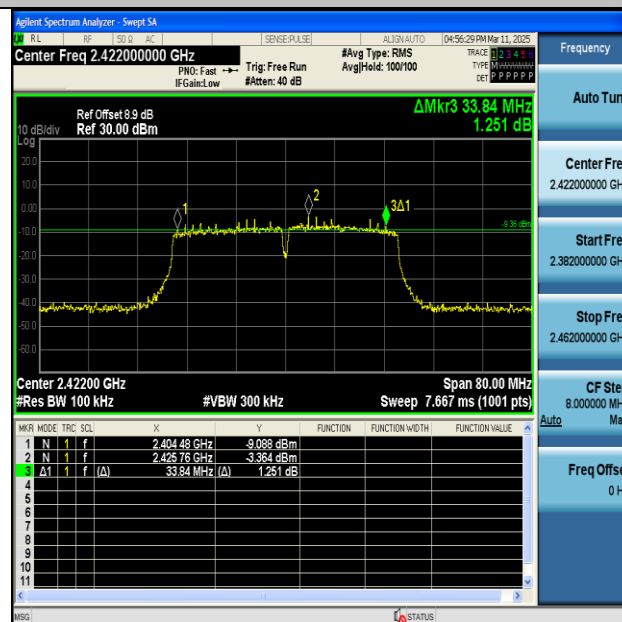
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



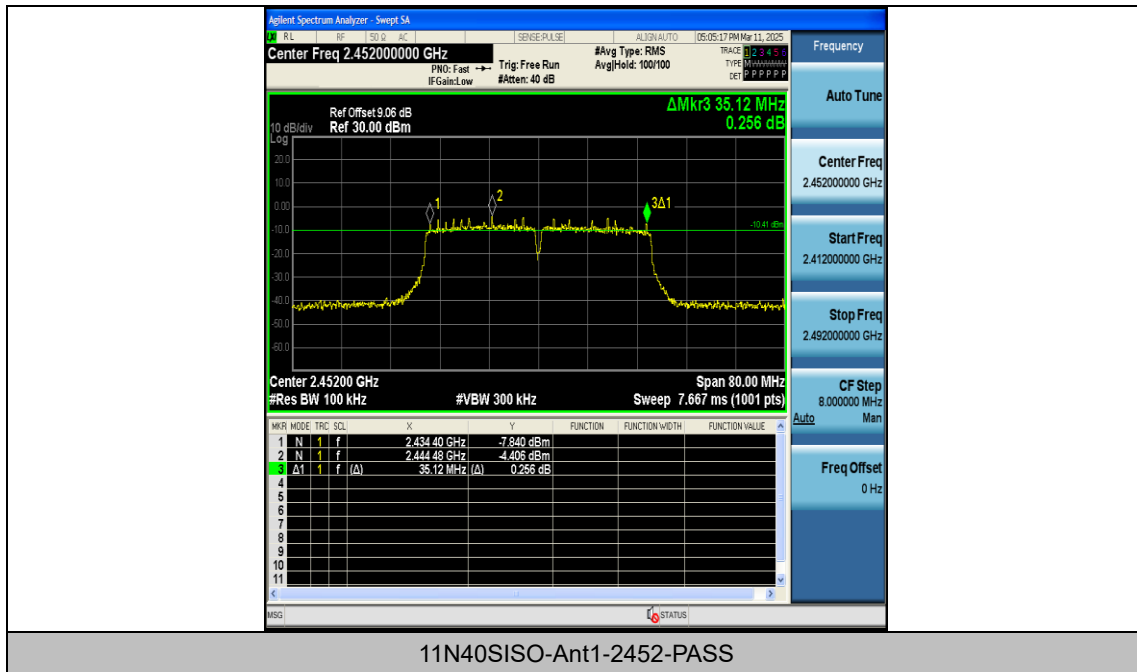
11N20SISO-Ant1-2462-PASS



11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS

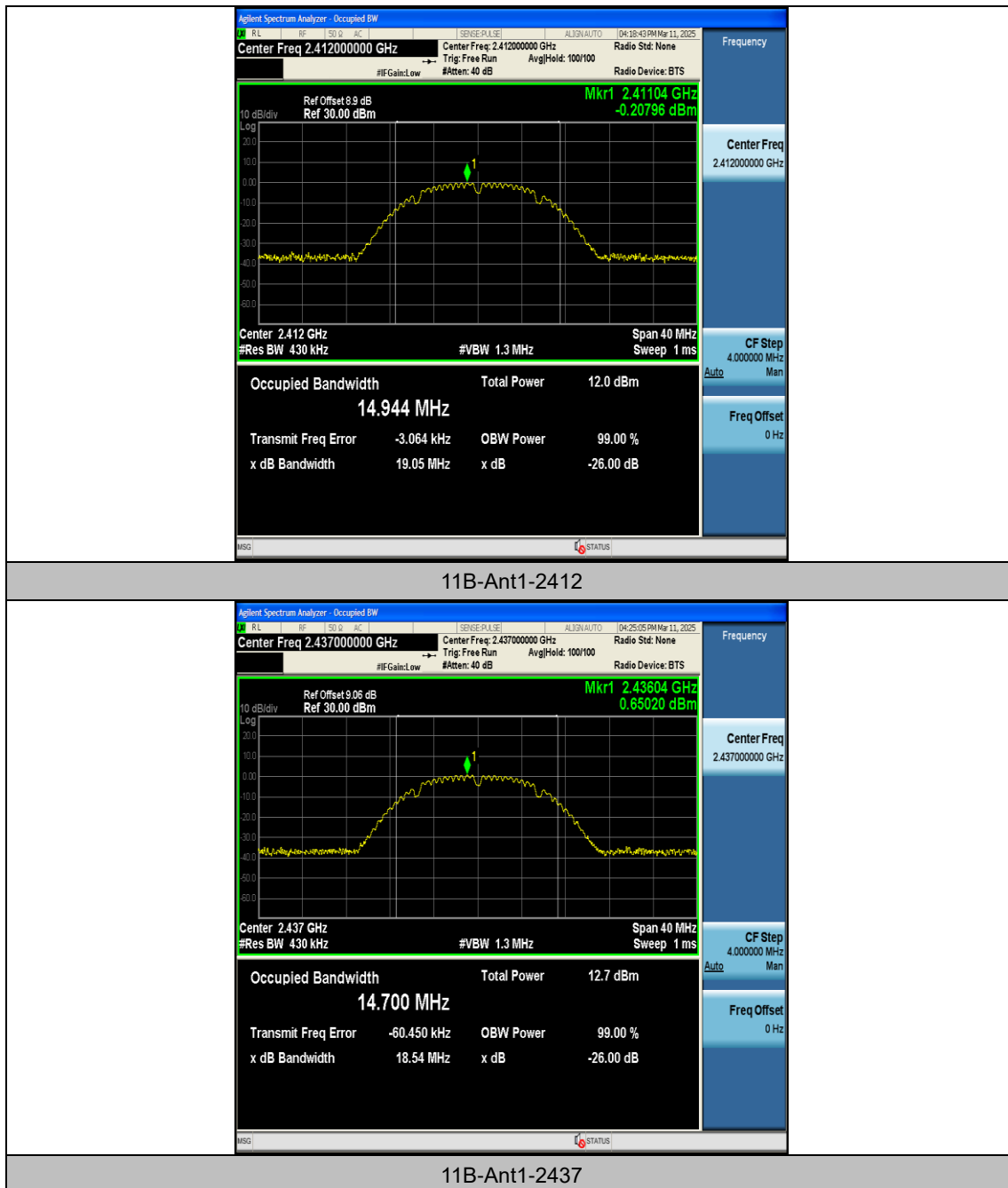


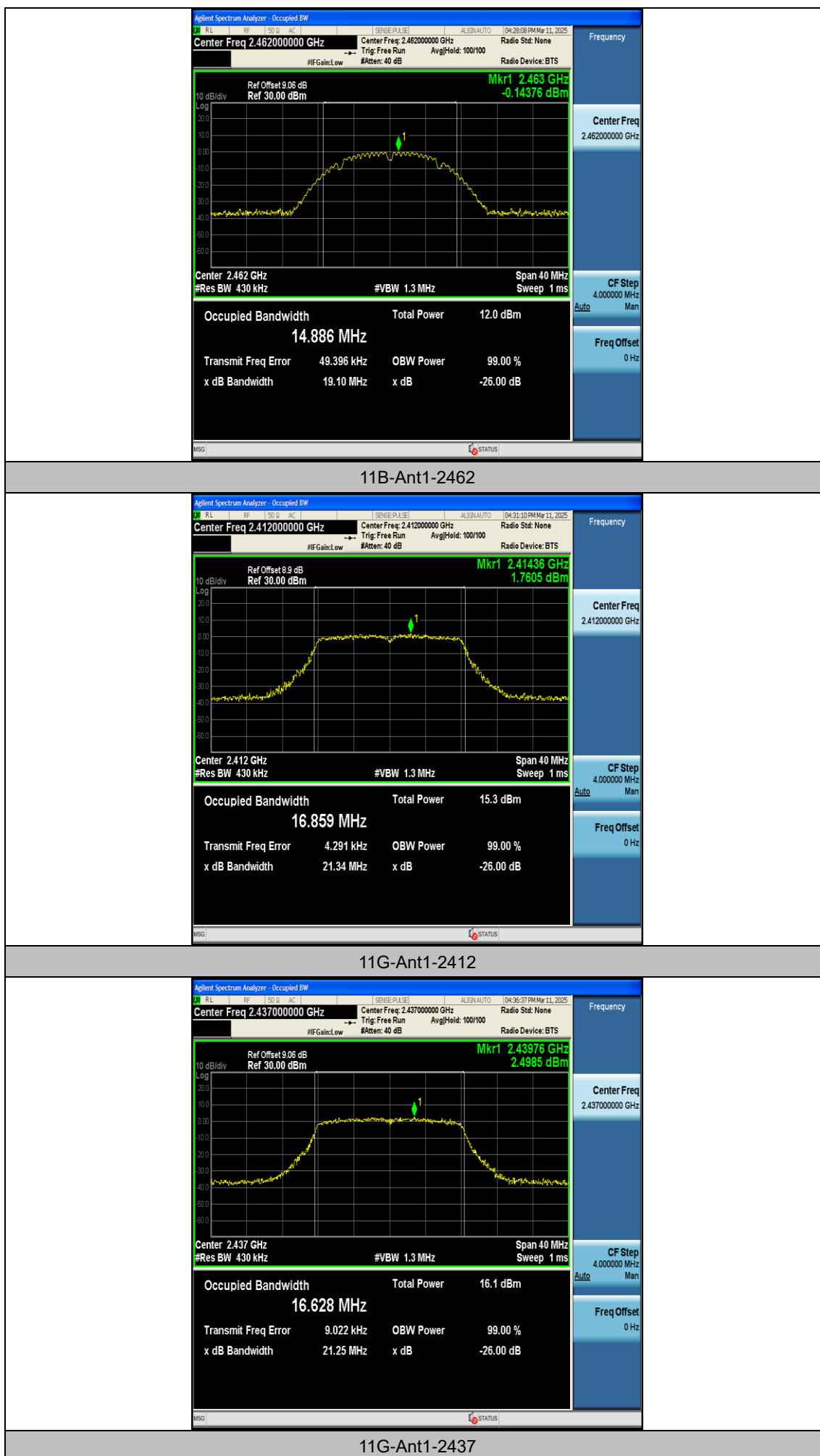
Appendix B: Occupied Channel Bandwidth

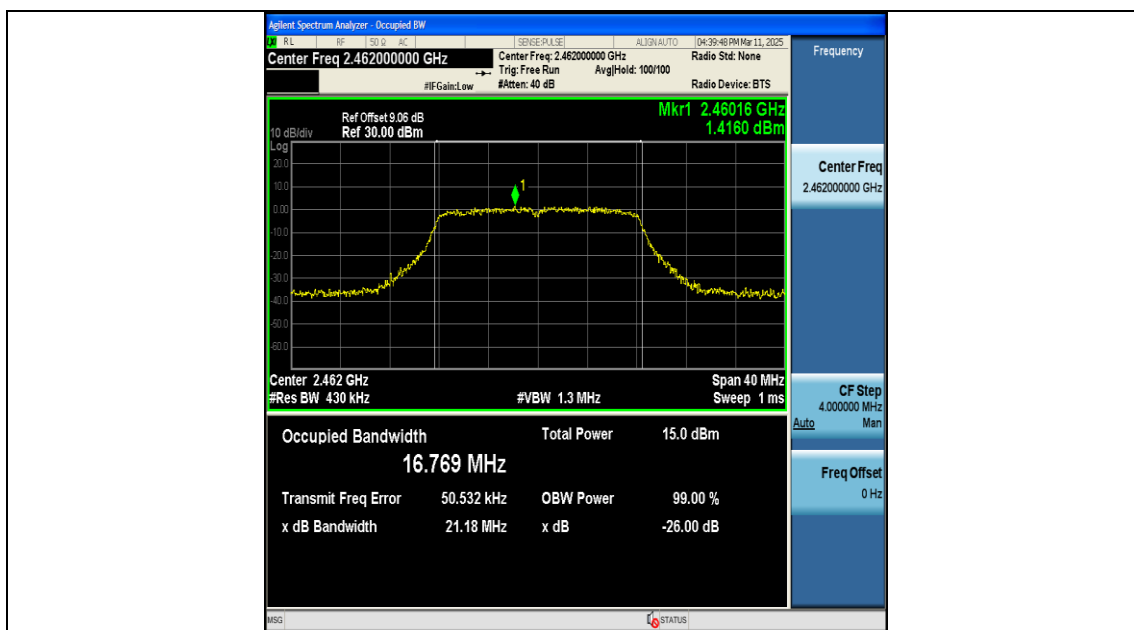
Test Result

Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	14.944	2404.5249	2419.4689	---	---
11B	Ant1	2437	14.700	2429.5896	2444.2896	---	---
11B	Ant1	2462	14.886	2454.6064	2469.4924	---	---
11G	Ant1	2412	16.859	2403.5748	2420.4338	---	---
11G	Ant1	2437	16.628	2428.6950	2445.3230	---	---
11G	Ant1	2462	16.769	2453.6660	2470.4350	---	---
11N20SISO	Ant1	2412	18.017	2402.9819	2420.9989	---	---
11N20SISO	Ant1	2437	17.890	2428.0709	2445.9609	---	---
11N20SISO	Ant1	2462	17.919	2453.0857	2471.0047	---	---
11N40SISO	Ant1	2422	36.249	2403.9775	2440.2265	---	---
11N40SISO	Ant1	2437	36.078	2419.0217	2455.0997	---	---
11N40SISO	Ant1	2452	36.313	2433.8298	2470.1428	---	---

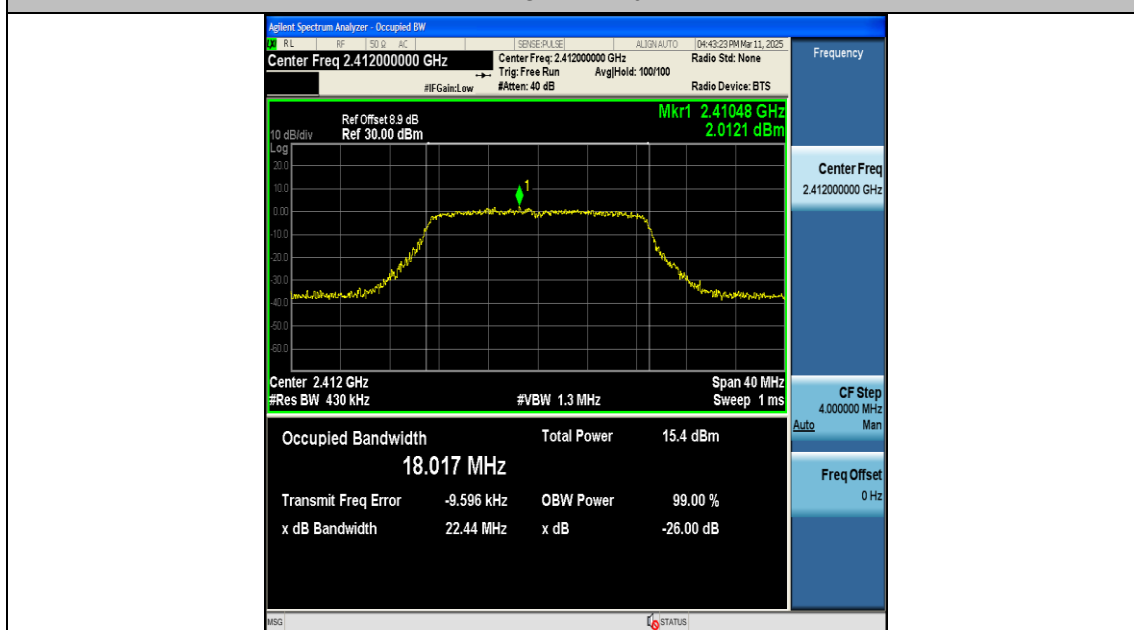
Test Graphs



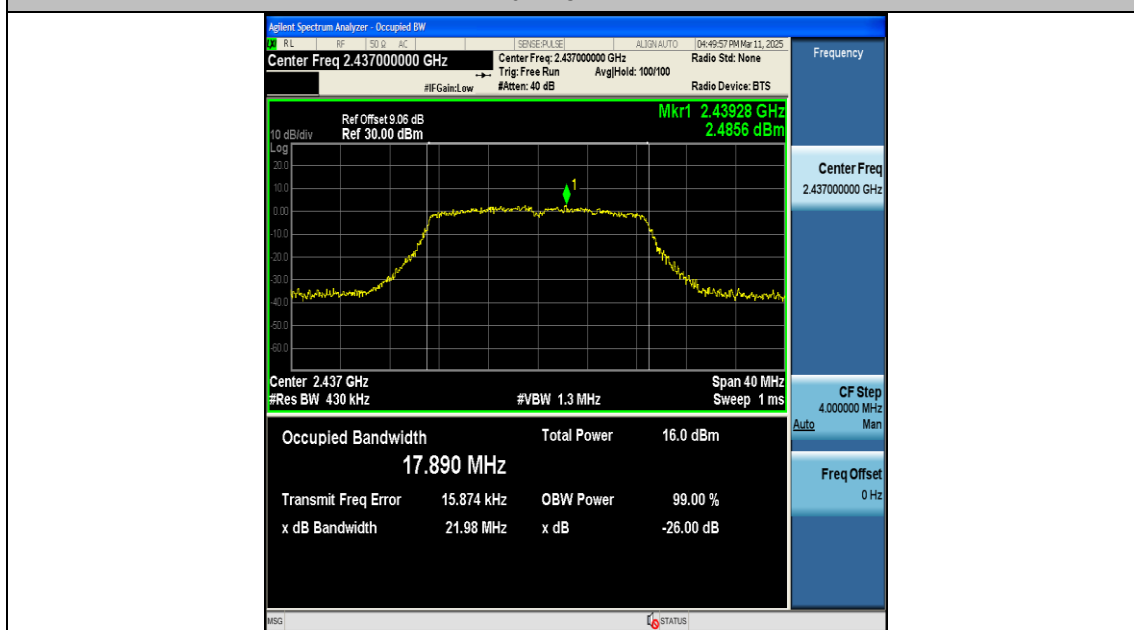




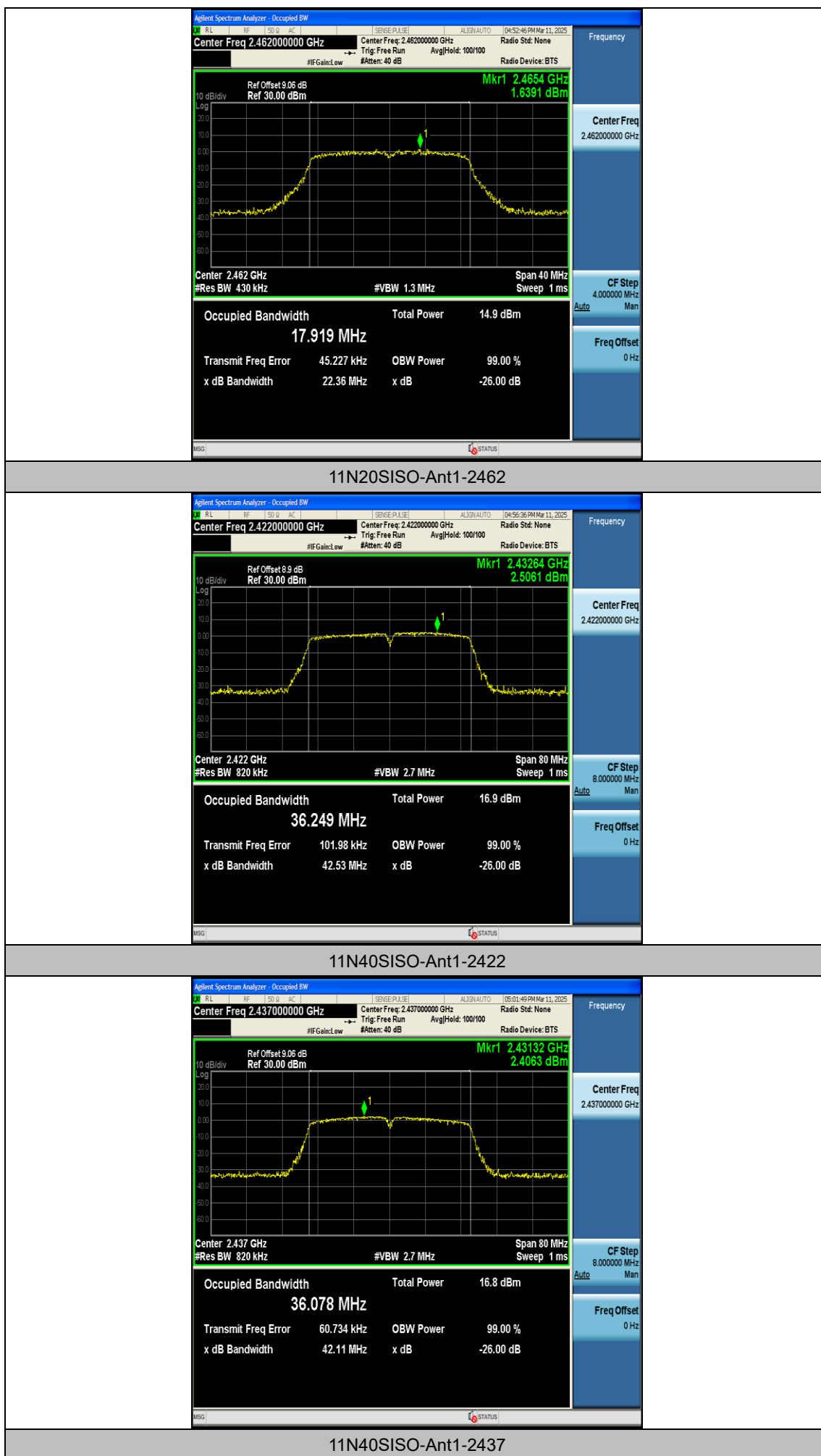
11G-Ant1-2462



11N20SISO-Ant1-2412



11N20SISO-Ant1-2437





Appendix C: Maximum Average conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	11.52	≤30.00	PASS
11B	Ant1	2437	12.24	≤30.00	PASS
11B	Ant1	2462	11.63	≤30.00	PASS
11G	Ant1	2412	11.98	≤30.00	PASS
11G	Ant1	2437	12.66	≤30.00	PASS
11G	Ant1	2462	11.69	≤30.00	PASS
11N20SISO	Ant1	2412	11.96	≤30.00	PASS
11N20SISO	Ant1	2437	12.64	≤30.00	PASS
11N20SISO	Ant1	2462	11.47	≤30.00	PASS
11N40SISO	Ant1	2422	12.74	≤30.00	PASS
11N40SISO	Ant1	2437	12.75	≤30.00	PASS
11N40SISO	Ant1	2452	12.06	≤30.00	PASS

Note: The Power Sensor offset(dB) = attenuator factor(dB) + cable loss(dB) + Duty Cycle Factor(dB).

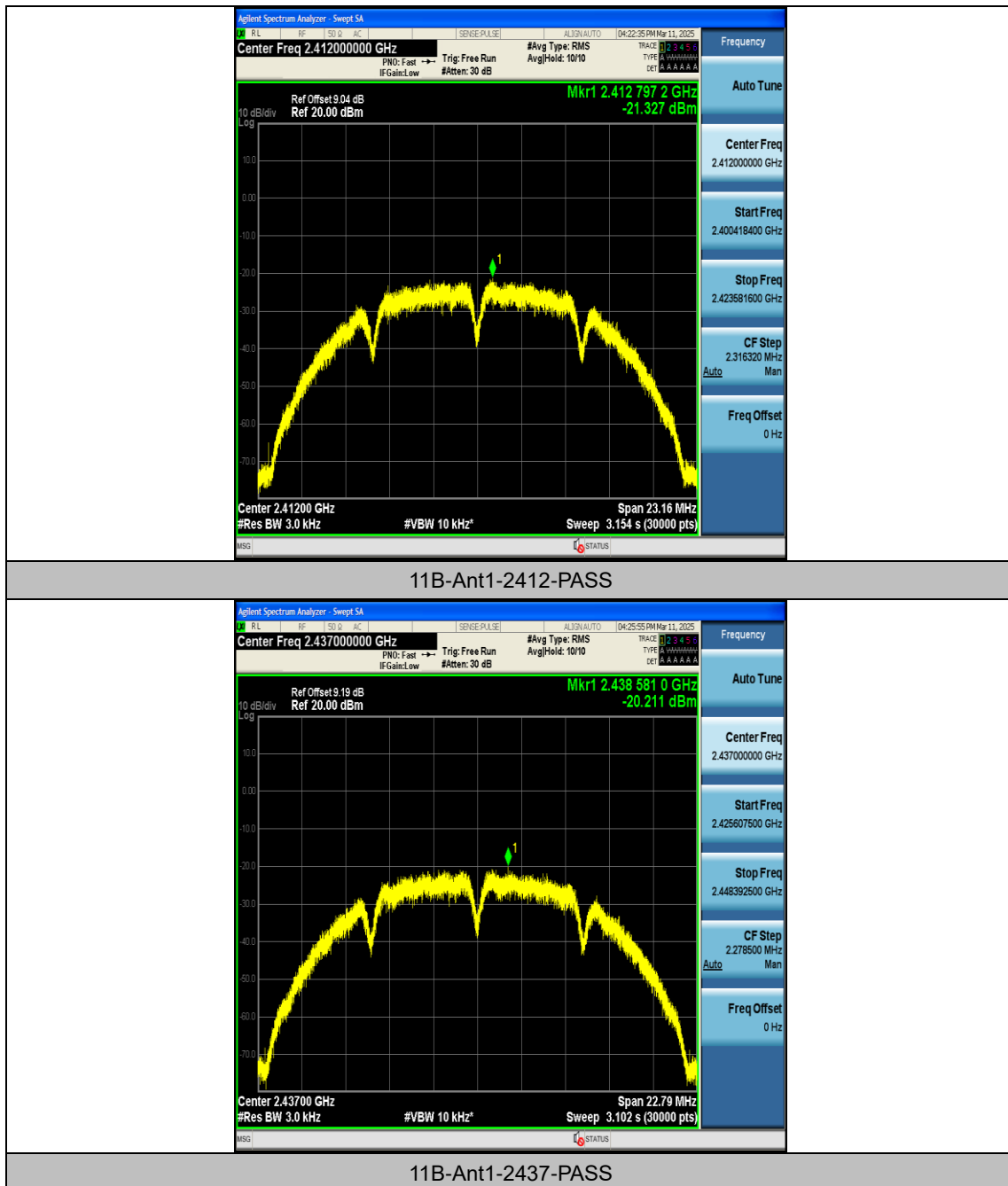
Appendix D: Maximum Average power spectral density

Test Result

Test Mode	Antenna	Frequency [MHz]	Raw. Data [dBm/3kHz]	Dc. Factor	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-21.47	0.14	-21.33	≤8.00	PASS
11B	Ant1	2437	-20.34	0.13	-20.21	≤8.00	PASS
11B	Ant1	2462	-21.56	0.13	-21.43	≤8.00	PASS
11G	Ant1	2412	-21.22	0.44	-20.78	≤8.00	PASS
11G	Ant1	2437	-20.25	0.38	-19.87	≤8.00	PASS
11G	Ant1	2462	-21.58	0.38	-21.20	≤8.00	PASS
11N20SISO	Ant1	2412	-21.95	0.41	-21.54	≤8.00	PASS
11N20SISO	Ant1	2437	-20.37	0.45	-19.92	≤8.00	PASS
11N20SISO	Ant1	2462	-21.16	0.39	-20.77	≤8.00	PASS
11N40SISO	Ant1	2422	-22.84	0.88	-21.96	≤8.00	PASS
11N40SISO	Ant1	2437	-23.09	0.91	-22.18	≤8.00	PASS
11N40SISO	Ant1	2452	-23.76	0.95	-22.81	≤8.00	PASS

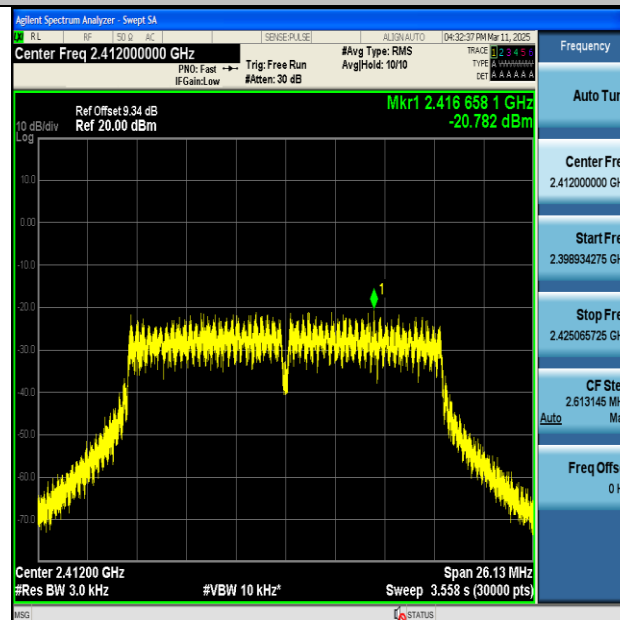
Note: The SA offset(dB) = attenuator factor(dB) + cable loss(dB) + Duty Cycle Factor(dB).

Test Graphs

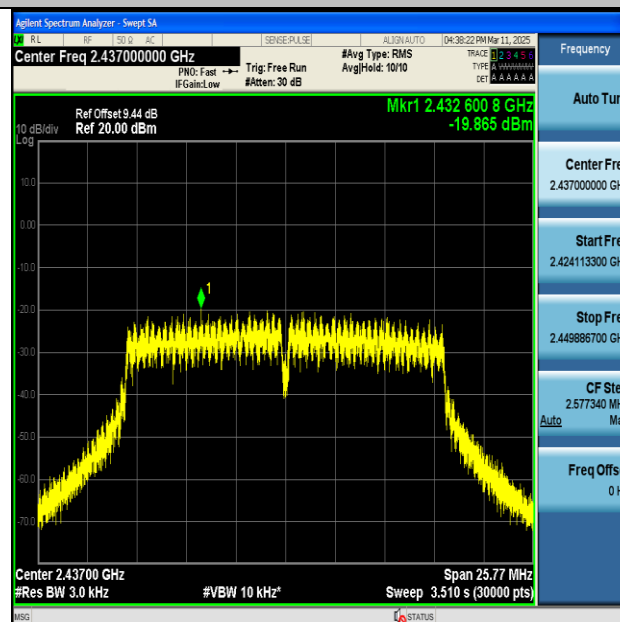




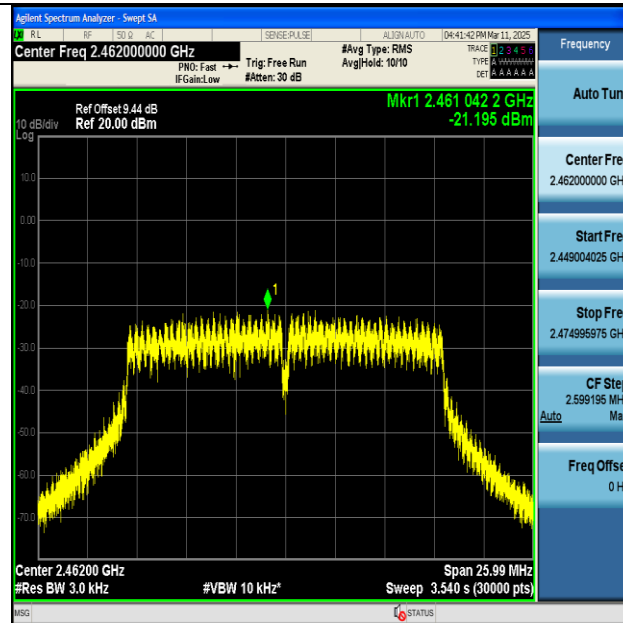
11B-Ant1-2462-PASS



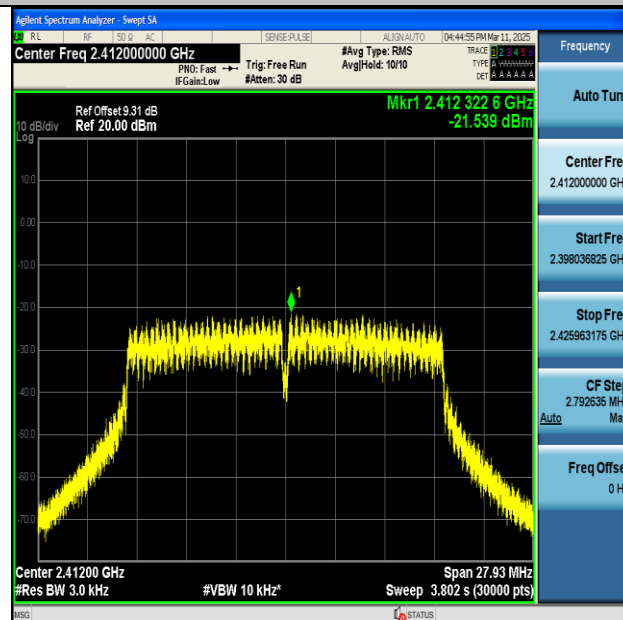
11G-Ant1-2412-PASS



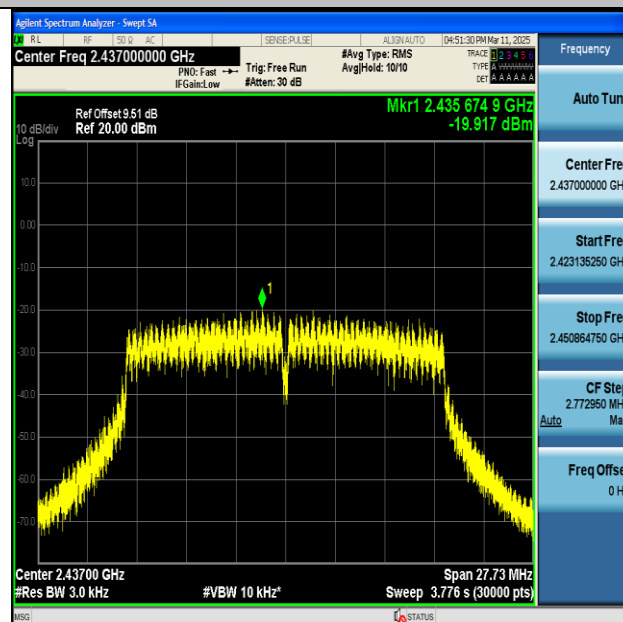
11G-Ant1-2437-PASS



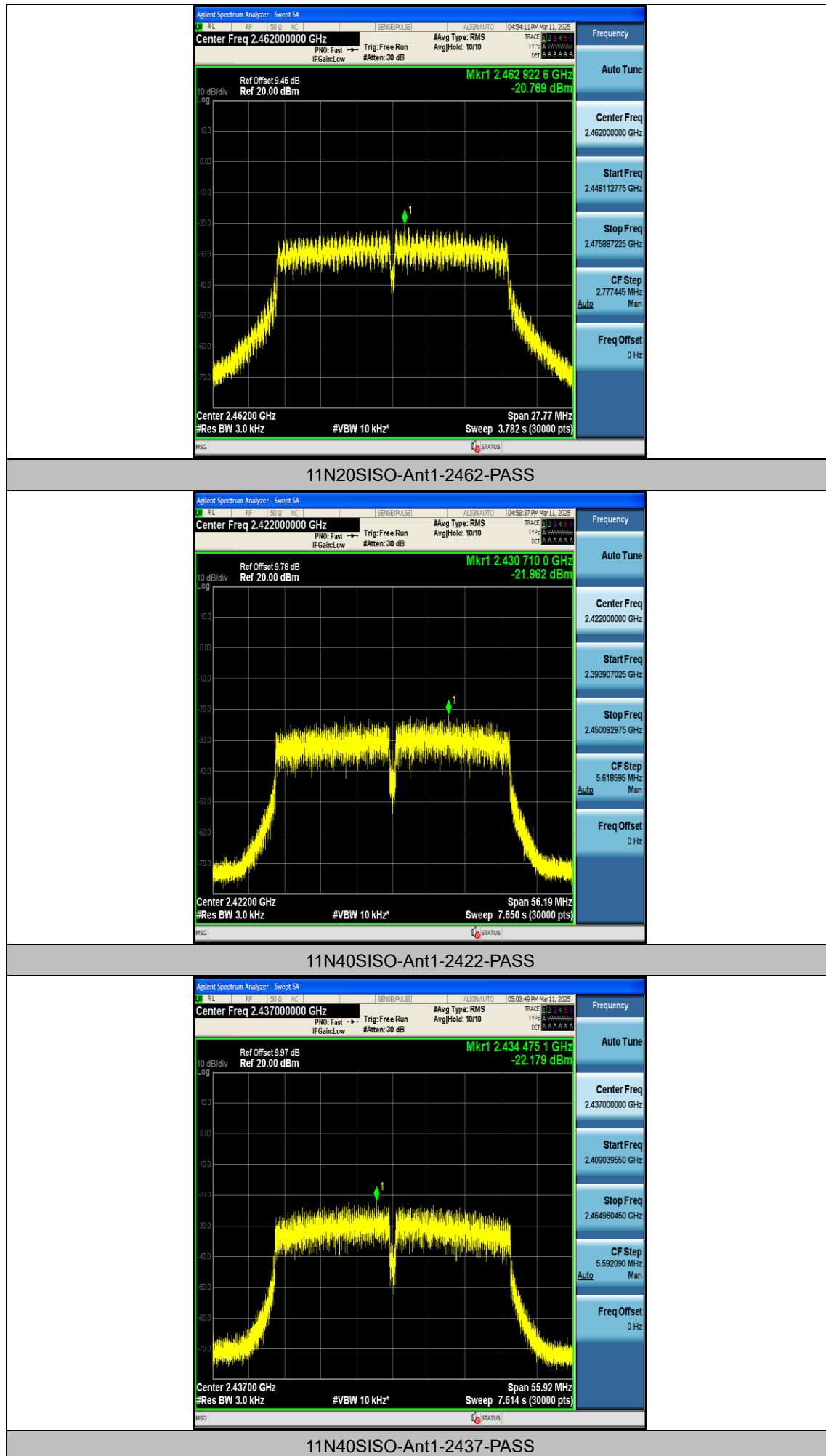
11G-Ant1-2462-PASS

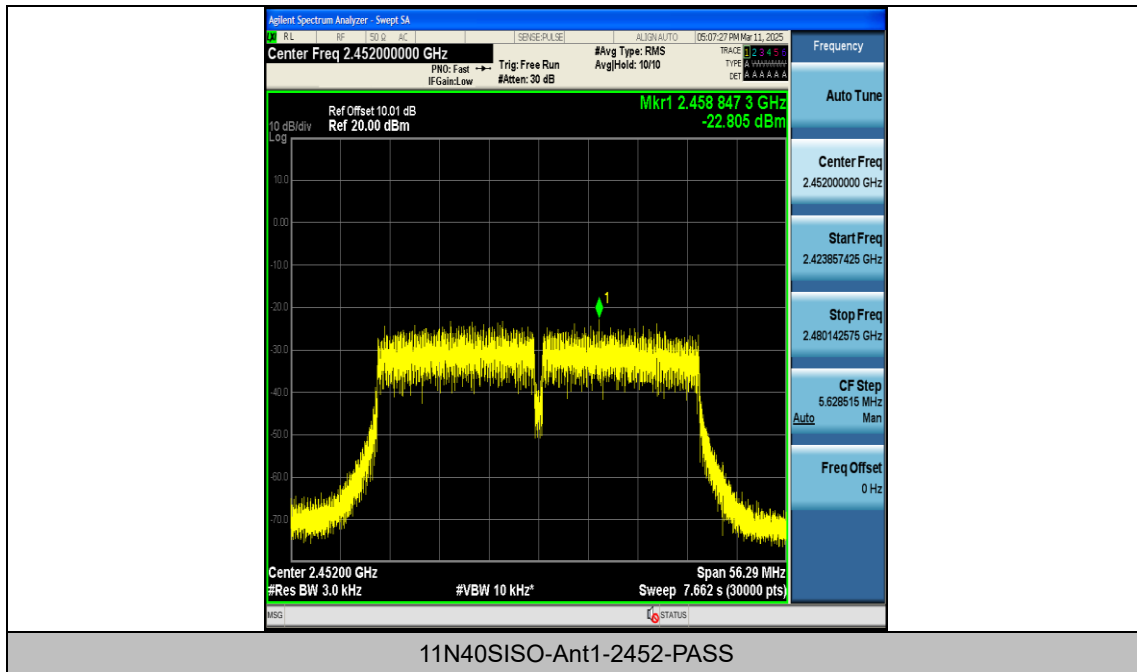


11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS



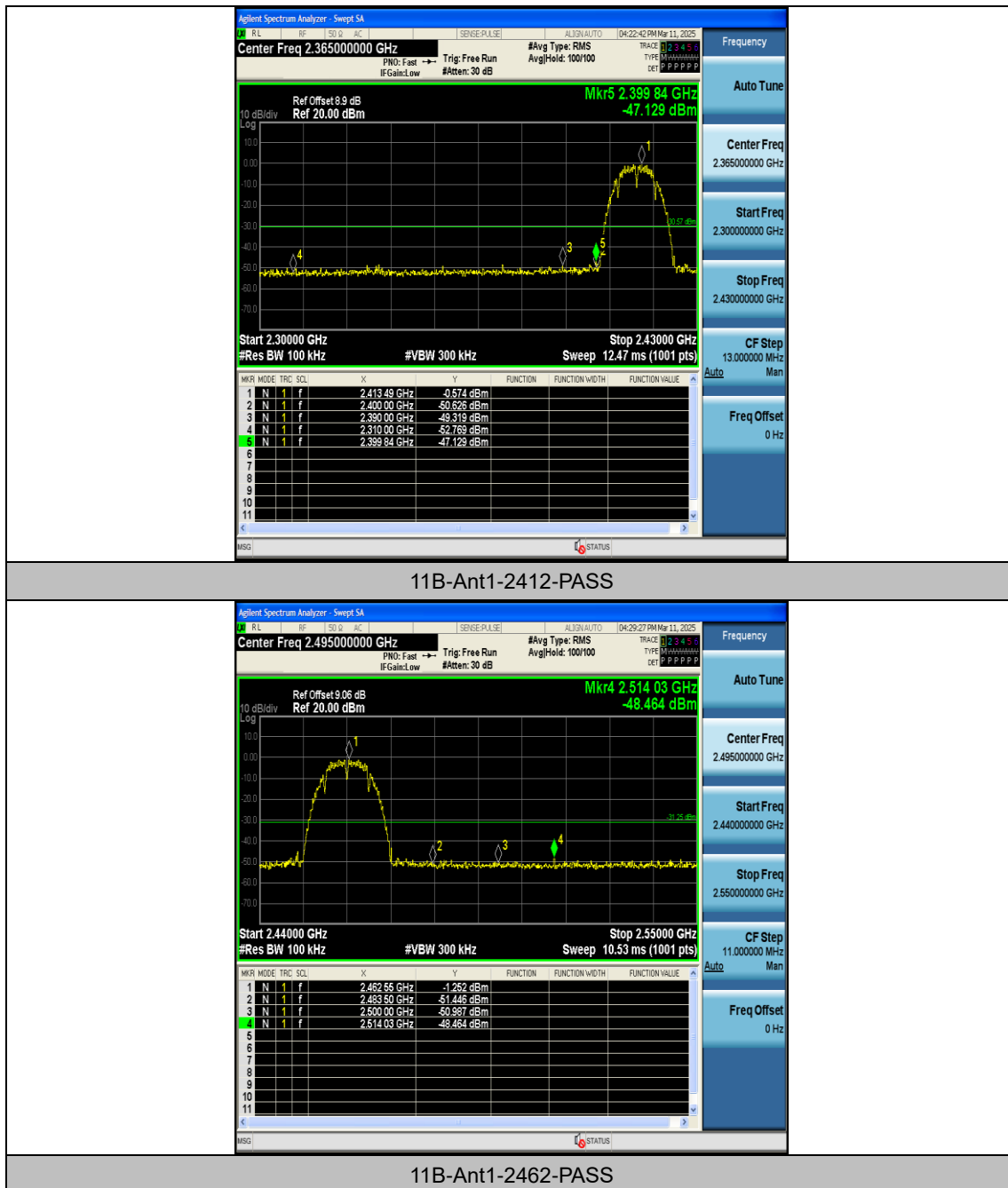


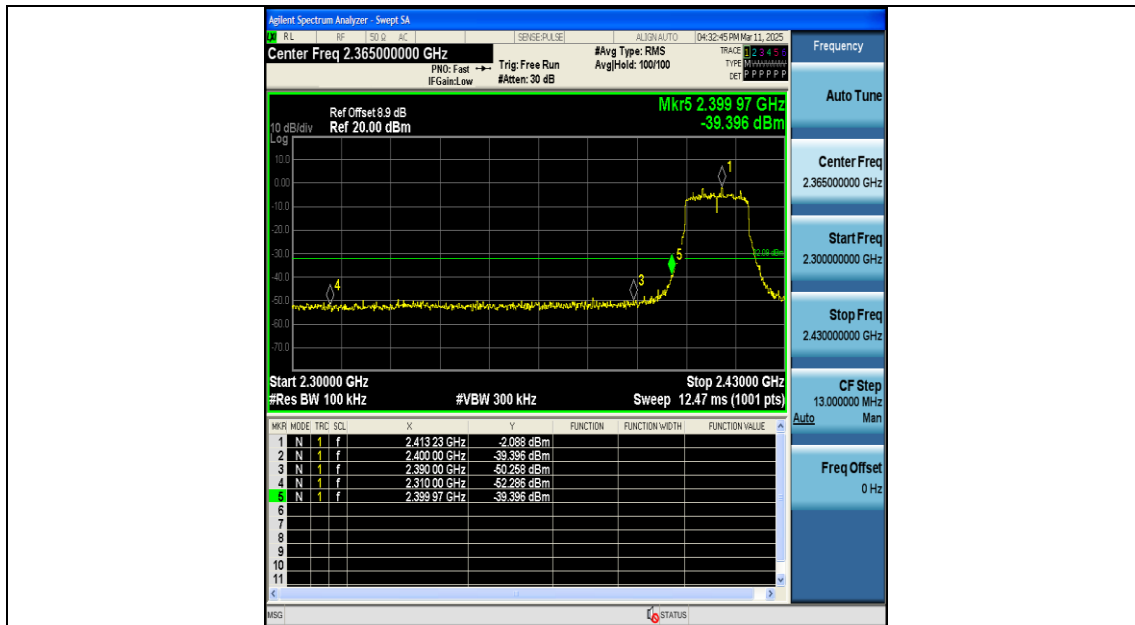
Appendix E: Band edge measurements

Test Result

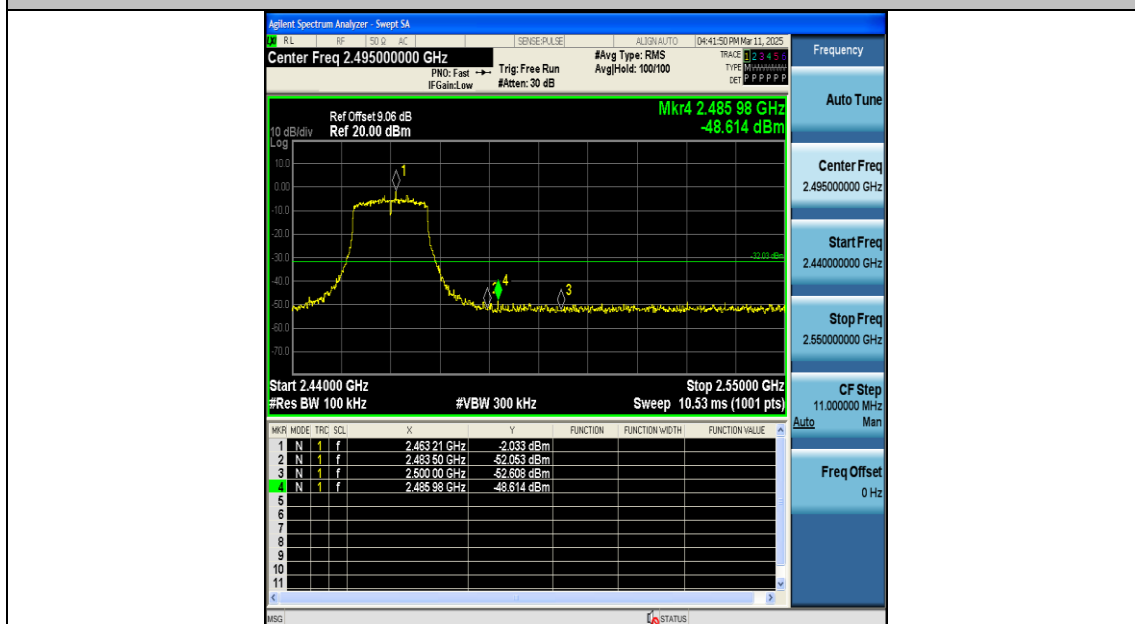
Test Mode	Antenna	Ch. Name	Frequency. [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	-0.57	-47.13	≤ -30.57	PASS
11B	Ant1	High	2462	-1.25	-48.46	≤ -31.25	PASS
11G	Ant1	Low	2412	-2.09	-39.4	≤ -32.09	PASS
11G	Ant1	High	2462	-2.03	-48.61	≤ -32.03	PASS
11N20SI SO	Ant1	Low	2412	-2.97	-38.28	≤ -32.97	PASS
11N20SI SO	Ant1	High	2462	-1.46	-48	≤ -31.46	PASS
11N40SI SO	Ant1	Low	2422	-3.53	-41.69	≤ -33.53	PASS
11N40SI SO	Ant1	High	2452	-4.37	-47.75	≤ -34.37	PASS

Test Graphs

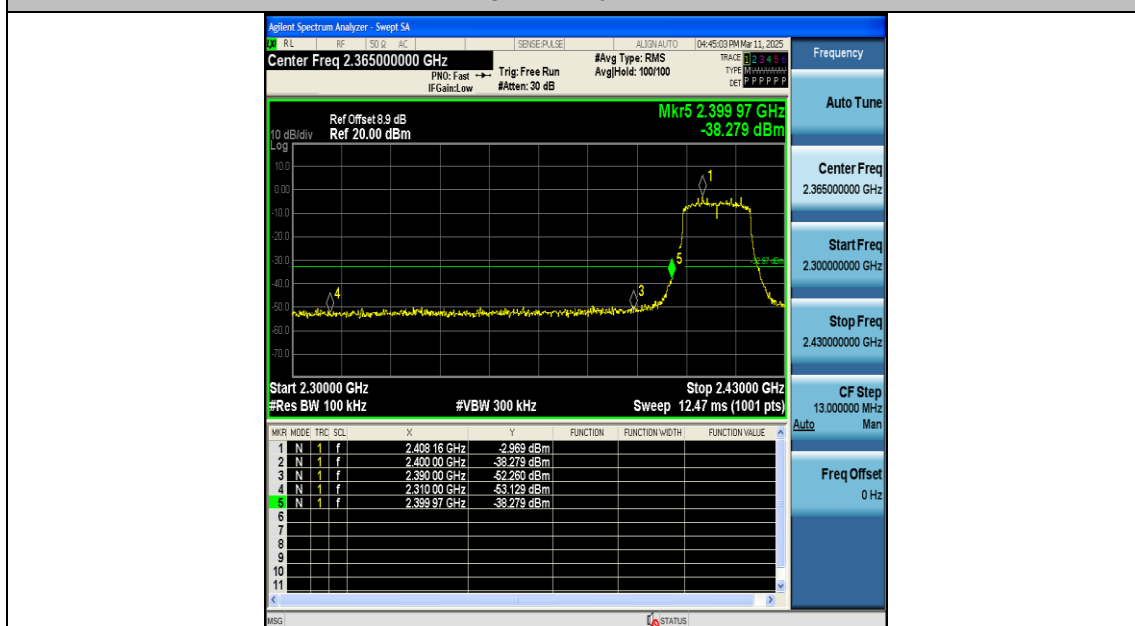




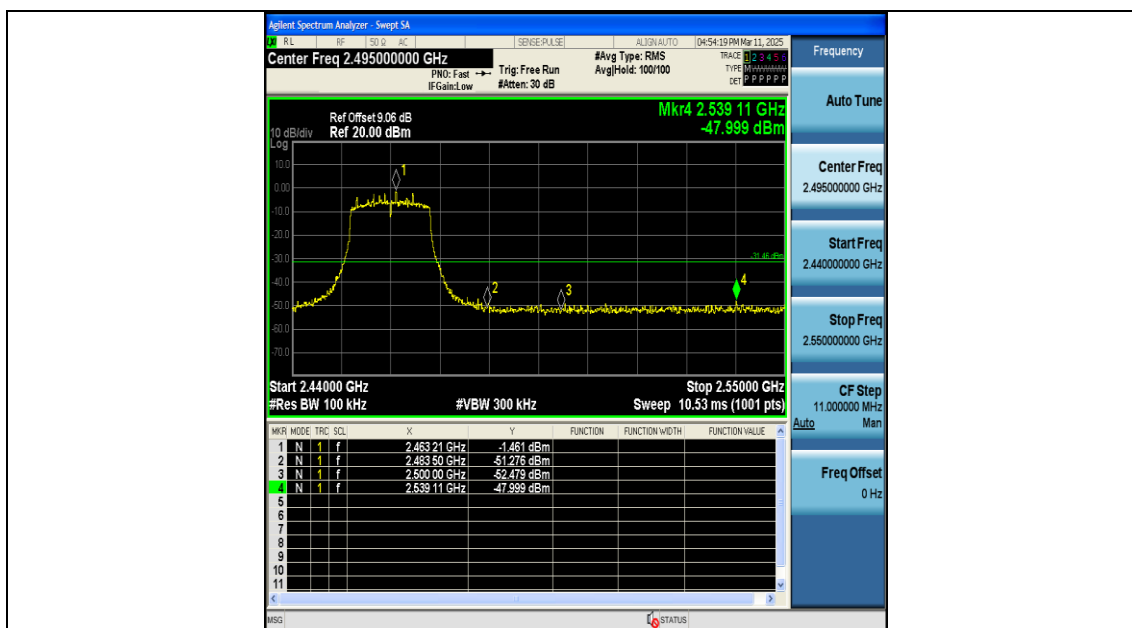
11G-Ant1-2412-PASS



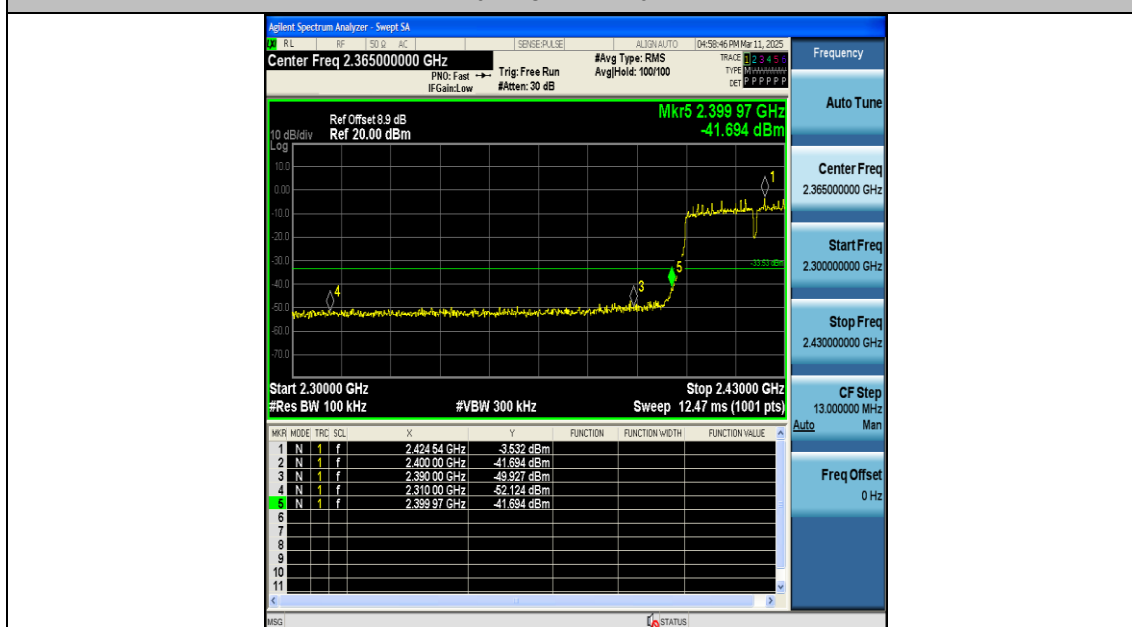
11G-Ant1-2462-PASS



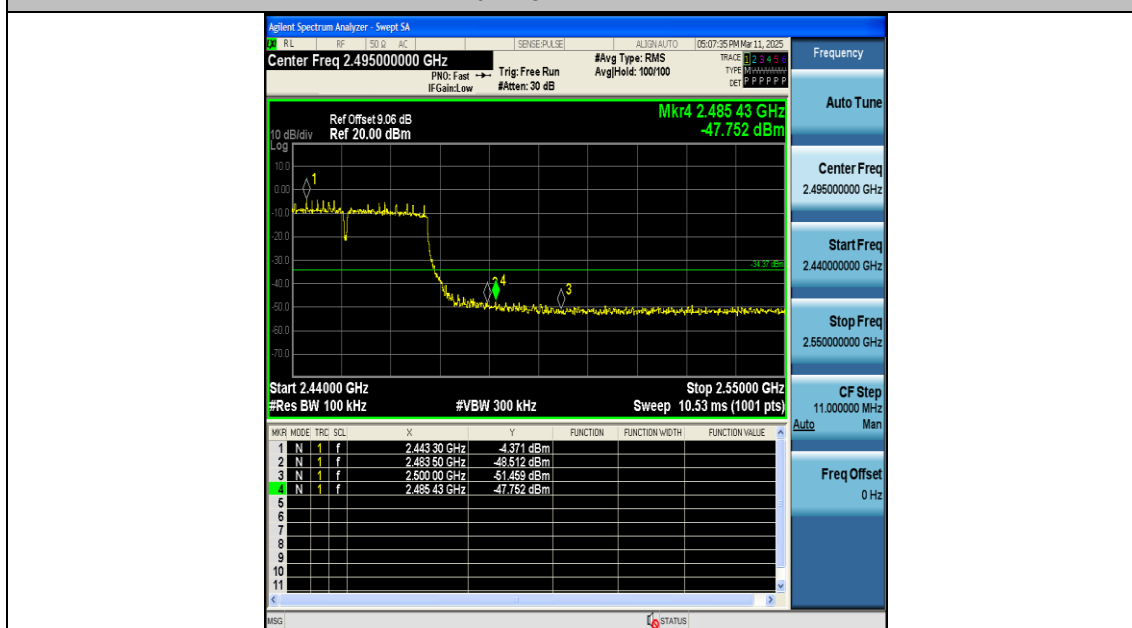
11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS



11N40SISO-Ant1-2422-PASS



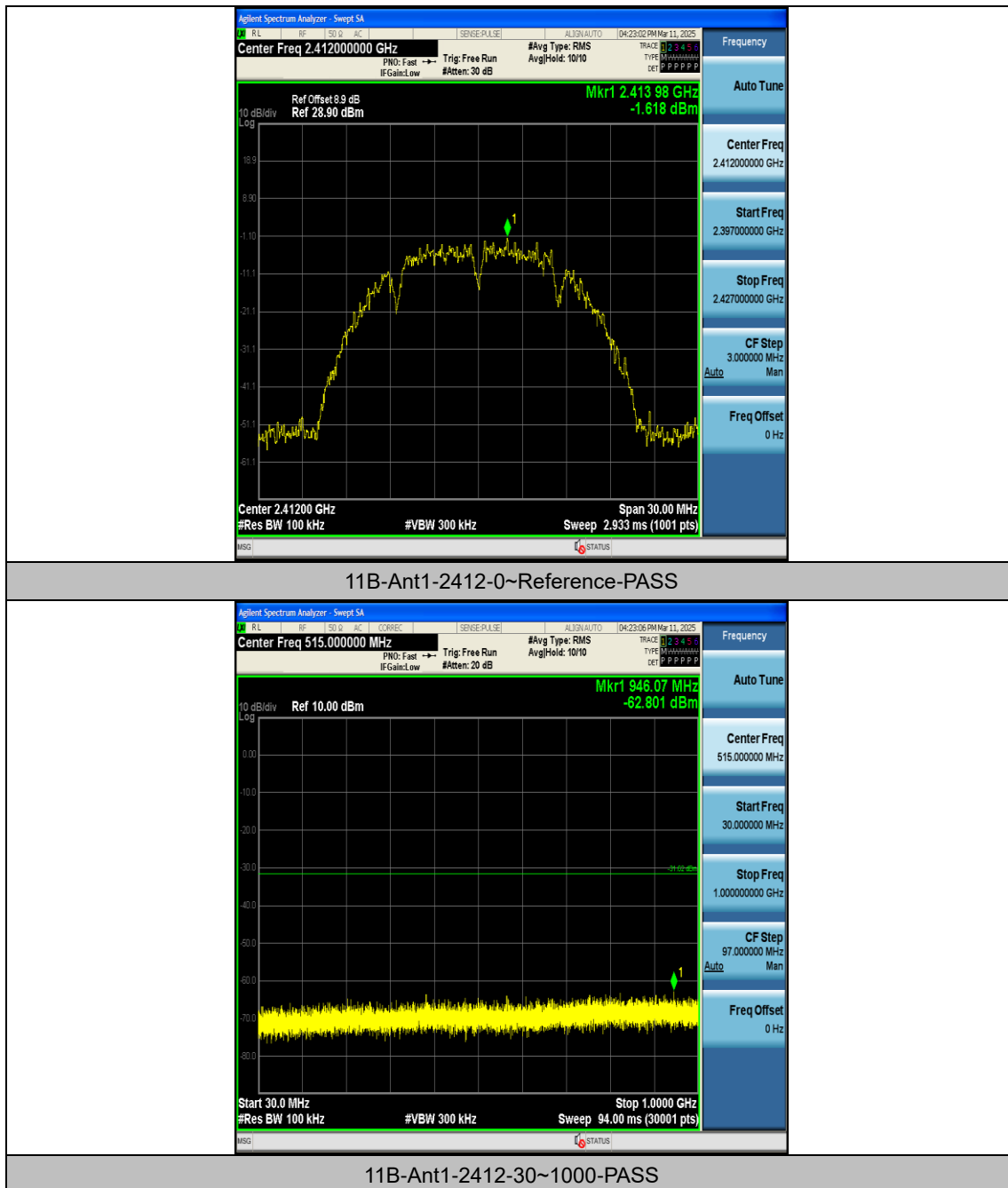
11N40SISO-Ant1-2452-PASS

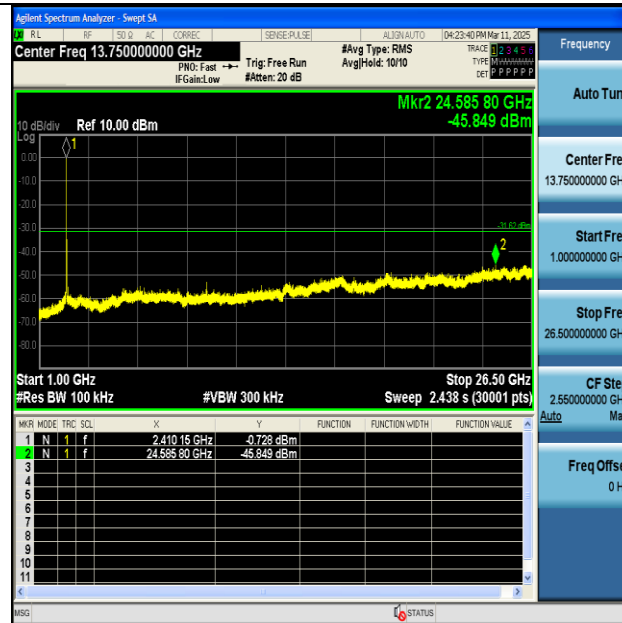
Appendix F: Conducted Spurious Emission

Test Result

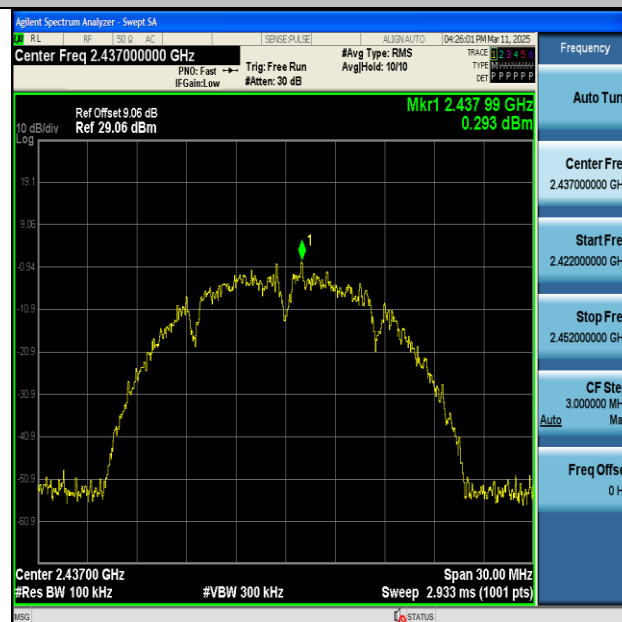
Test Mode	Antenna	Frequency [MHz]	Freq. Range [Mhz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	-1.62	-1.62	---	PASS
11B	Ant1	2412	30~1000	-1.62	-62.8	≤-31.62	PASS
11B	Ant1	2412	1000~26500	-1.62	-45.85	≤-31.62	PASS
11B	Ant1	2437	0~Reference	0.29	0.29	---	PASS
11B	Ant1	2437	30~1000	0.29	-63.2	≤-29.71	PASS
11B	Ant1	2437	1000~26500	0.29	-45.19	≤-29.71	PASS
11B	Ant1	2462	0~Reference	-1.33	-1.33	---	PASS
11B	Ant1	2462	30~1000	-1.33	-62	≤-31.33	PASS
11B	Ant1	2462	1000~26500	-1.33	-44.96	≤-31.33	PASS
11G	Ant1	2412	0~Reference	-5.08	-5.08	---	PASS
11G	Ant1	2412	30~1000	-5.08	-63.09	≤-35.08	PASS
11G	Ant1	2412	1000~26500	-5.08	-44.81	≤-35.08	PASS
11G	Ant1	2437	0~Reference	-3.60	-3.60	---	PASS
11G	Ant1	2437	30~1000	-3.60	-63.25	≤-33.6	PASS
11G	Ant1	2437	1000~26500	-3.60	-45.61	≤-33.6	PASS
11G	Ant1	2462	0~Reference	-5.02	-5.02	---	PASS
11G	Ant1	2462	30~1000	-5.02	-62.38	≤-35.02	PASS
11G	Ant1	2462	1000~26500	-5.02	-45.1	≤-35.02	PASS
11N20SISO	Ant1	2412	0~Reference	-3.75	-3.75	---	PASS
11N20SISO	Ant1	2412	30~1000	-3.75	-61.73	≤-33.75	PASS
11N20SISO	Ant1	2412	1000~26500	-3.75	-45.13	≤-33.75	PASS
11N20SISO	Ant1	2437	0~Reference	-4.28	-4.28	---	PASS
11N20SISO	Ant1	2437	30~1000	-4.28	-62.81	≤-34.28	PASS
11N20SISO	Ant1	2437	1000~26500	-4.28	-45.67	≤-34.28	PASS
11N20SISO	Ant1	2462	0~Reference	-4.83	-4.83	---	PASS
11N20SISO	Ant1	2462	30~1000	-4.83	-62.18	≤-34.83	PASS
11N20SISO	Ant1	2462	1000~26500	-4.83	-45.82	≤-34.83	PASS
11N40SISO	Ant1	2422	0~Reference	-4.07	-4.07	---	PASS
11N40SISO	Ant1	2422	30~1000	-4.07	-63.01	≤-34.07	PASS
11N40SISO	Ant1	2422	1000~26500	-4.07	-45.83	≤-34.07	PASS
11N40SISO	Ant1	2437	0~Reference	-4.88	-4.88	---	PASS
11N40SISO	Ant1	2437	30~1000	-4.88	-63.43	≤-34.88	PASS
11N40SISO	Ant1	2437	1000~26500	-4.88	-45.58	≤-34.88	PASS
11N40SISO	Ant1	2452	0~Reference	-4.65	-4.65	---	PASS
11N40SISO	Ant1	2452	30~1000	-4.65	-62.14	≤-34.65	PASS
11N40SISO	Ant1	2452	1000~26500	-4.65	-45.43	≤-34.65	PASS

Test Graphs

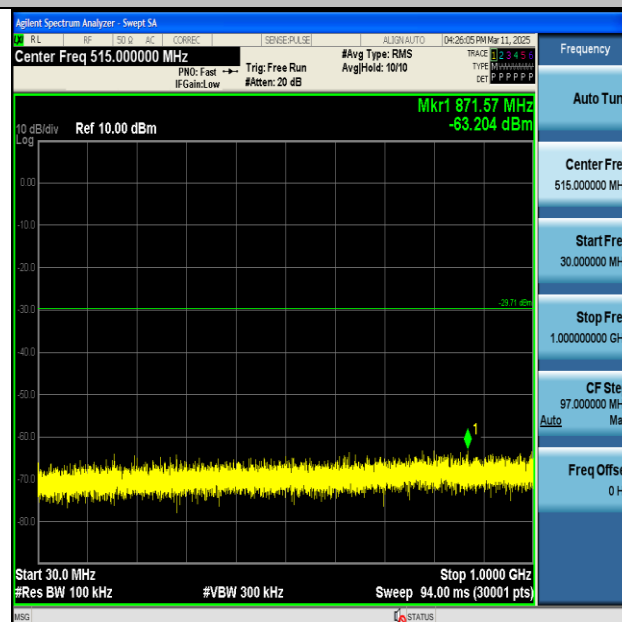




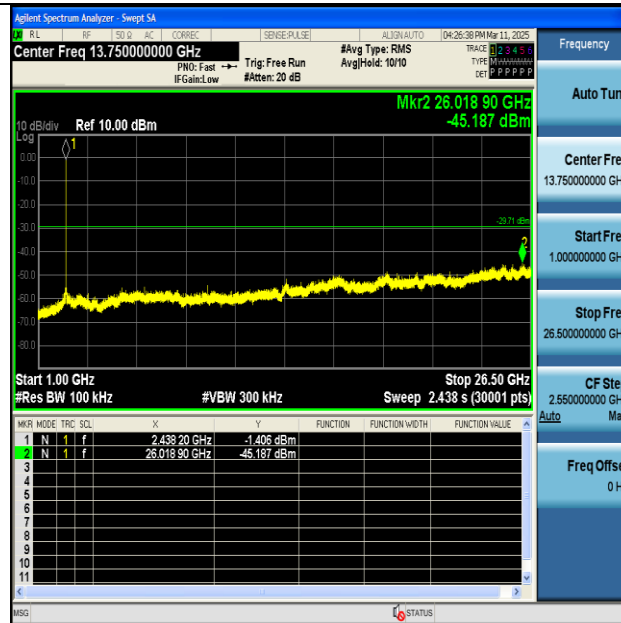
11B-Ant1-2412-1000~26500-PASS



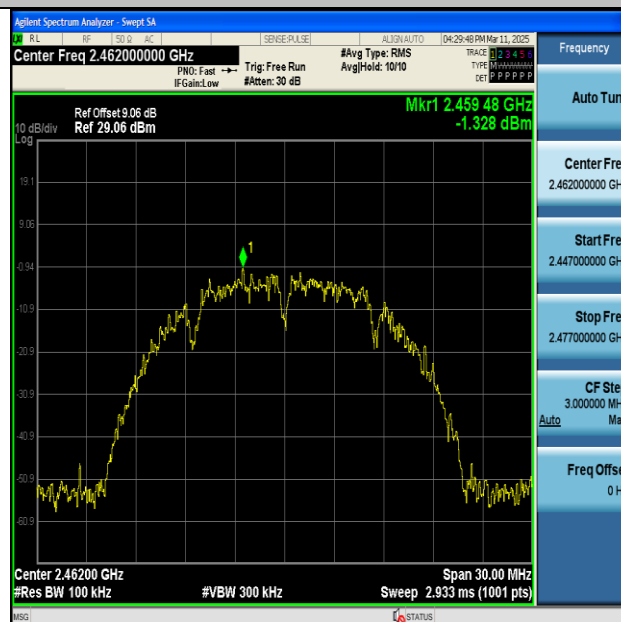
11B-Ant1-2437-0~Reference-PASS



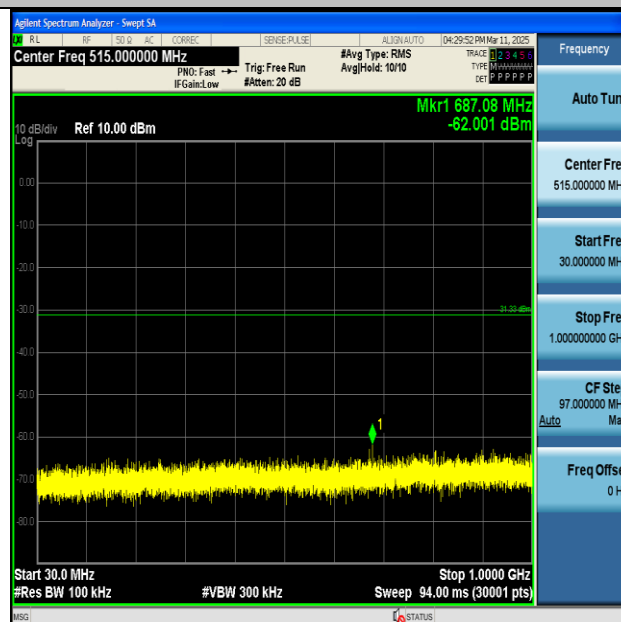
11B-Ant1-2437-30~1000-PASS



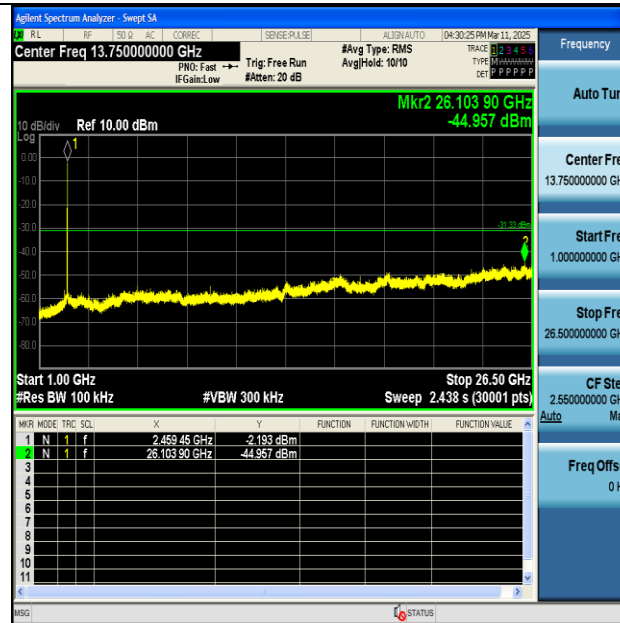
11B-Ant1-2437-1000~26500-PASS



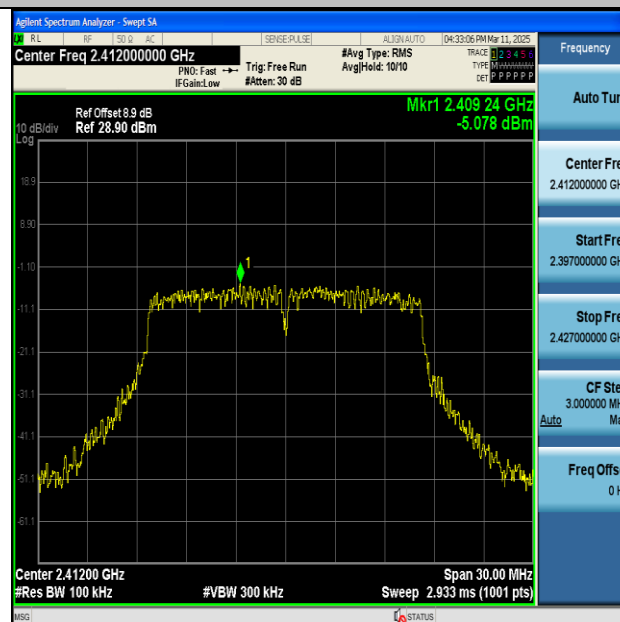
11B-Ant1-2462-0~Reference-PASS



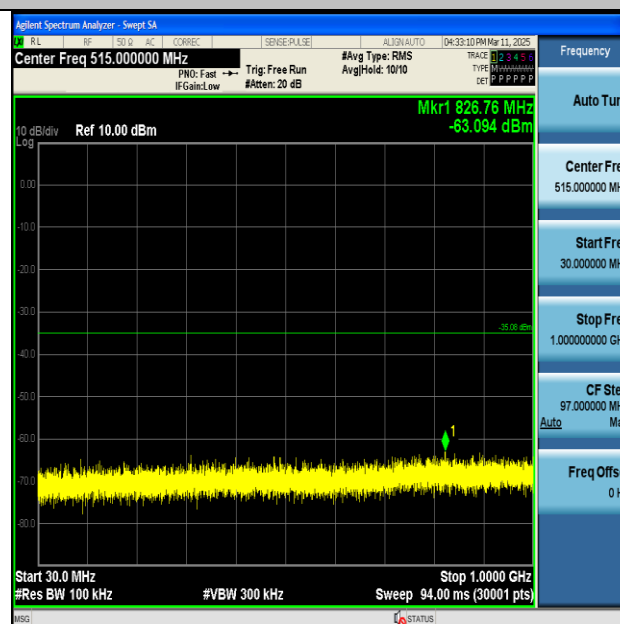
11B-Ant1-2462-30~1000-PASS



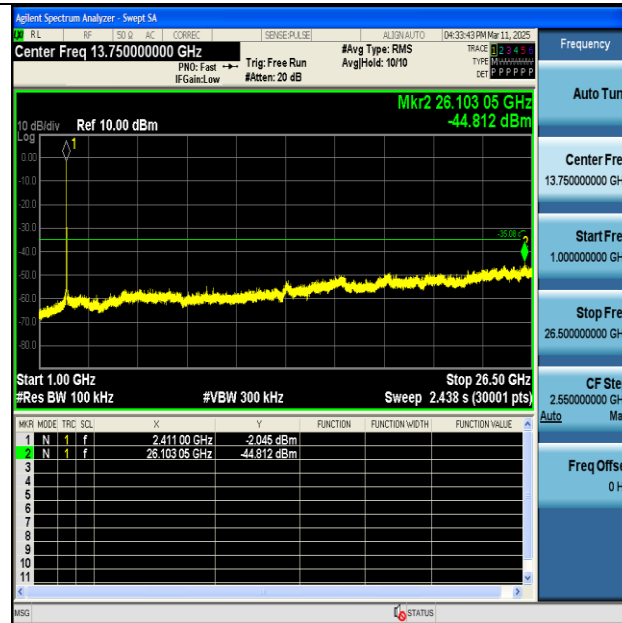
11B-Ant1-2462-1000~26500-PASS



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



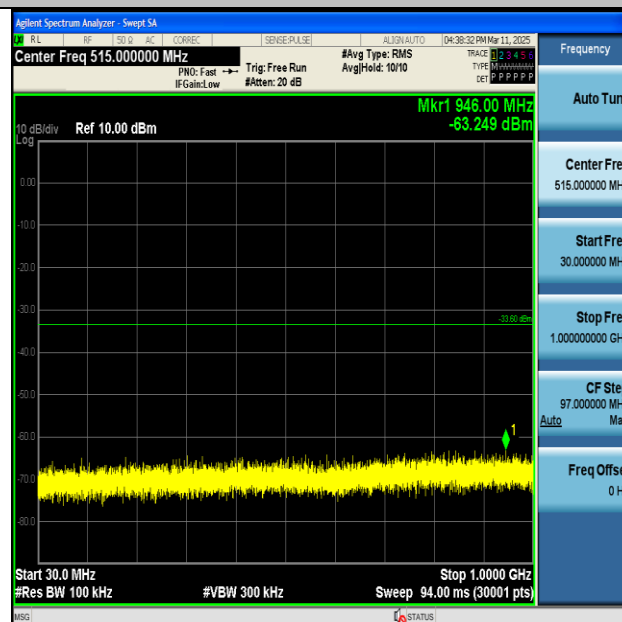
11G-Ant1-2412-30~1000-PASS



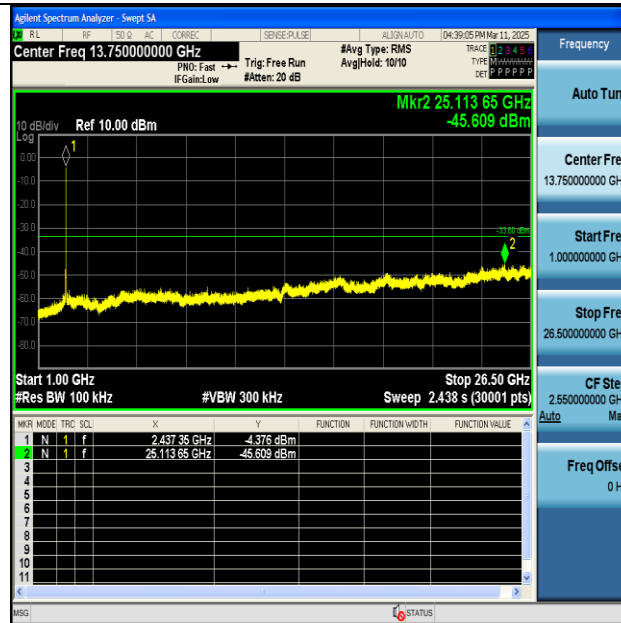
11G-Ant1-2412-1000~26500-PASS



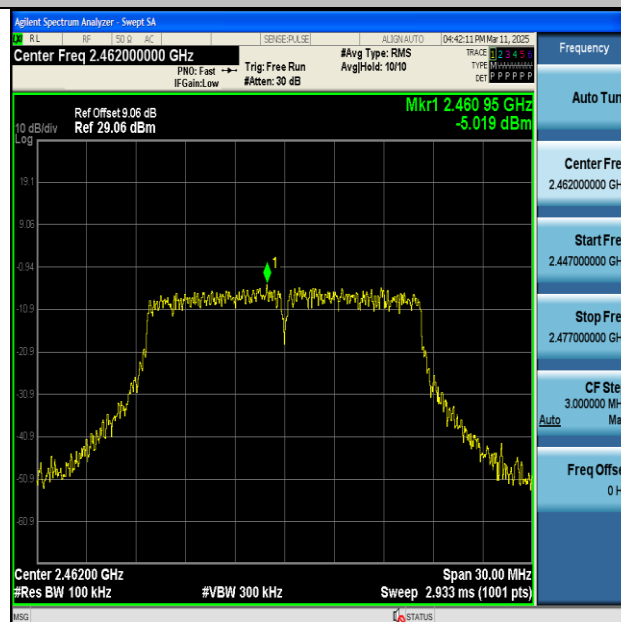
11G-Ant1-2437-0~Reference-PASS



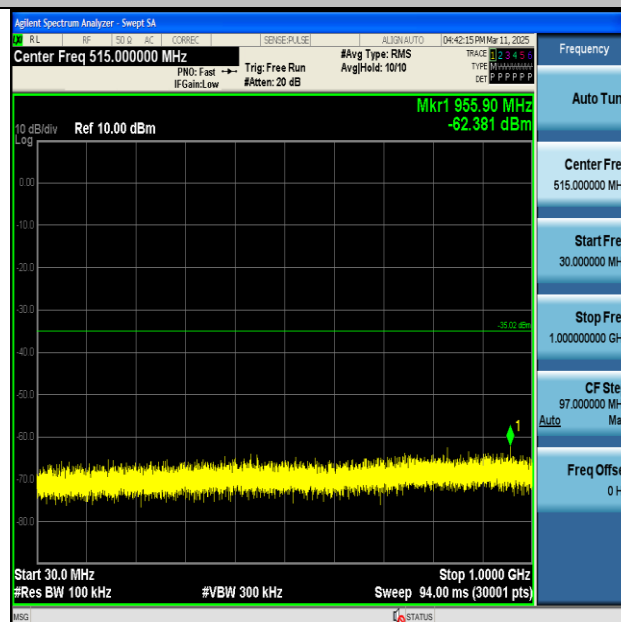
11G-Ant1-2437-30~1000-PASS



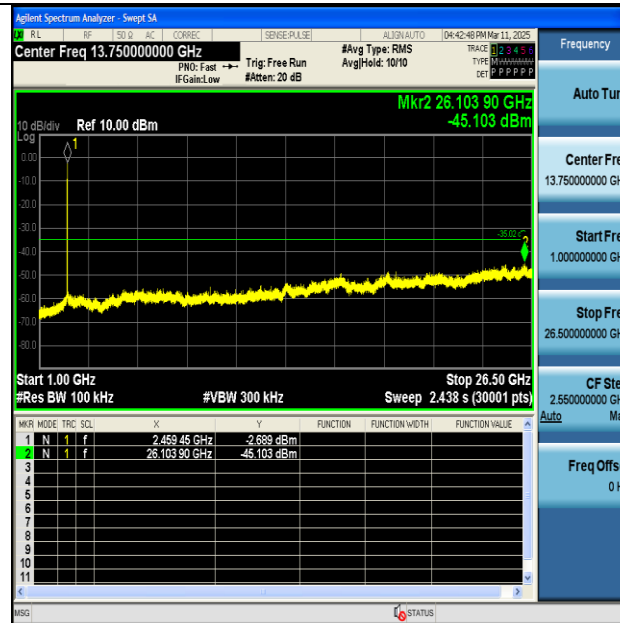
11G-Ant1-2437-1000~26500-PASS



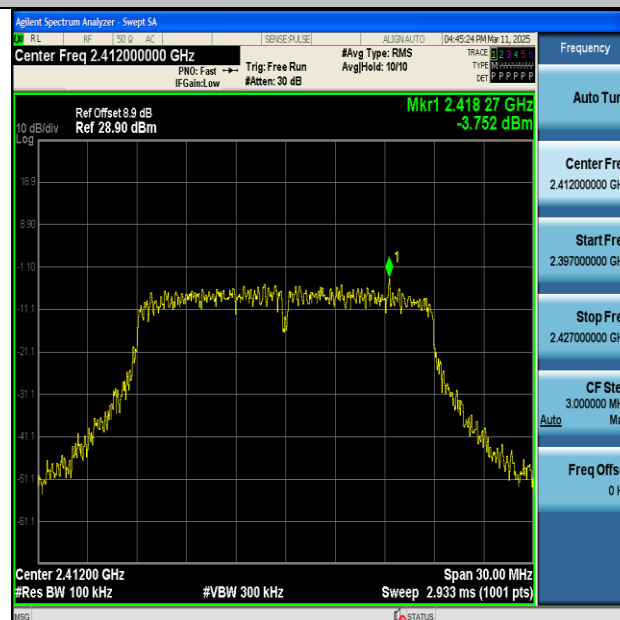
11G-Ant1-2462-0~Reference-PASS



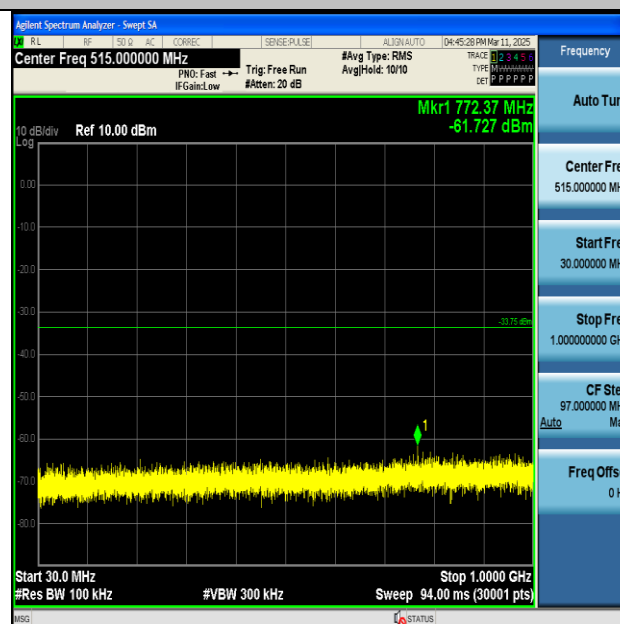
11G-Ant1-2462-30~1000-PASS



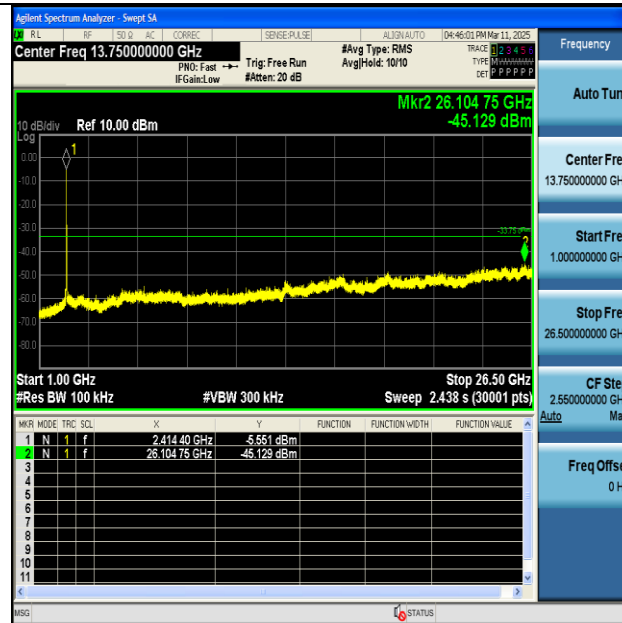
11G-Ant1-2462-1000~26500-PASS



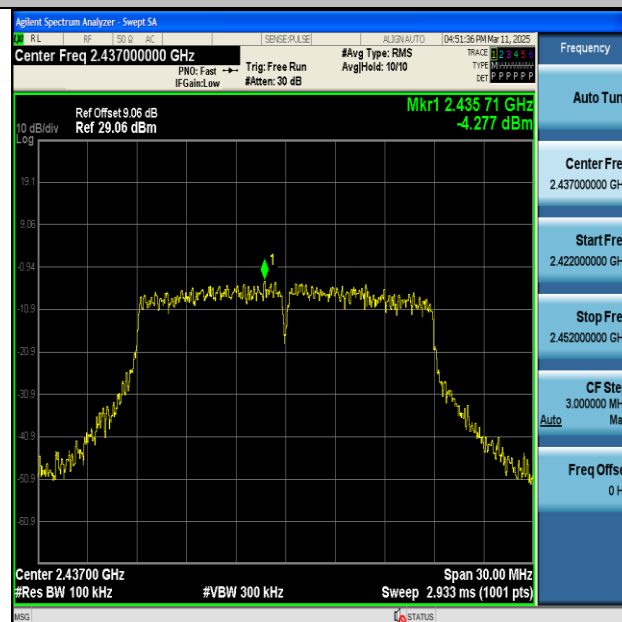
11N20SISO-Ant1-2412-0~Reference-PASS



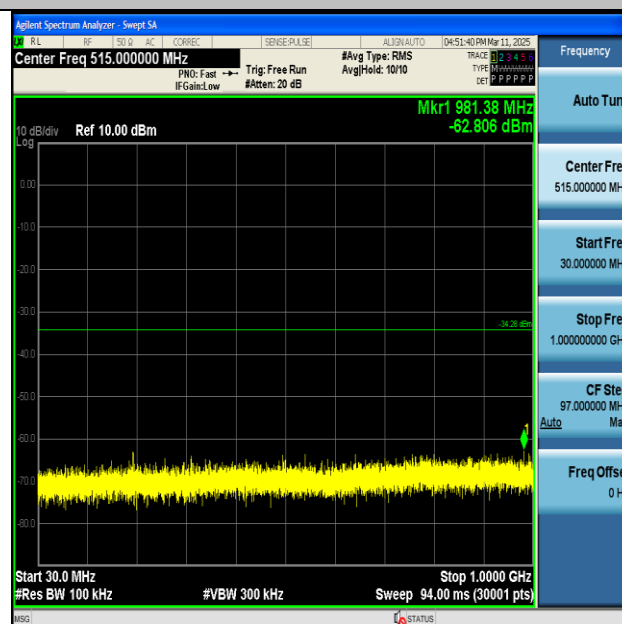
11N20SISO-Ant1-2412-30~1000-PASS



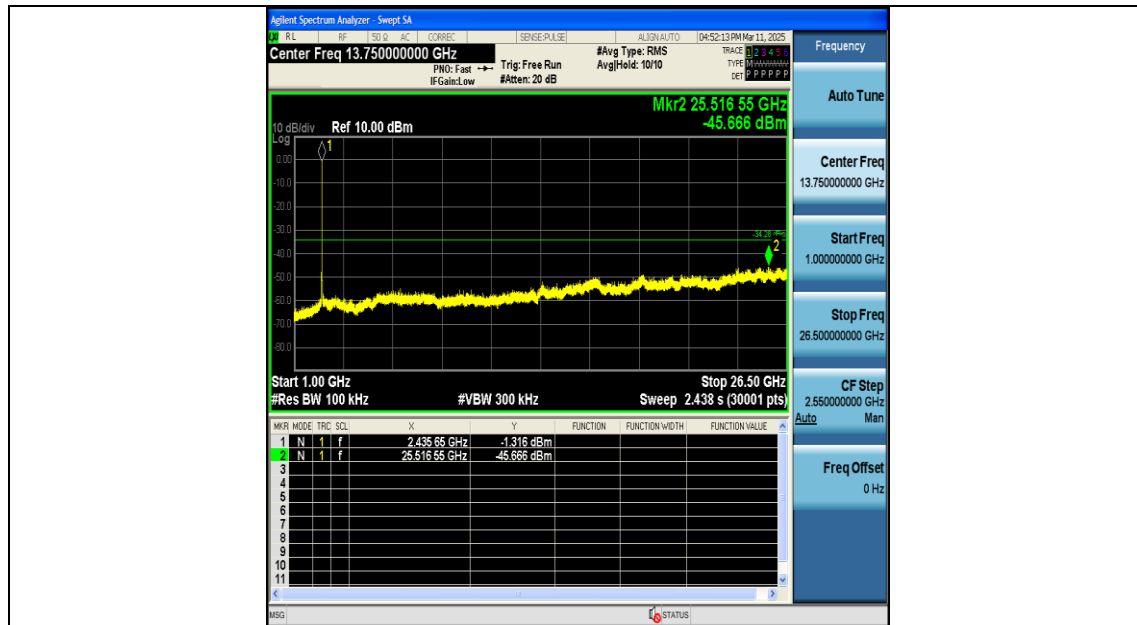
11N20SISO-Ant1-2412-1000~26500-PASS



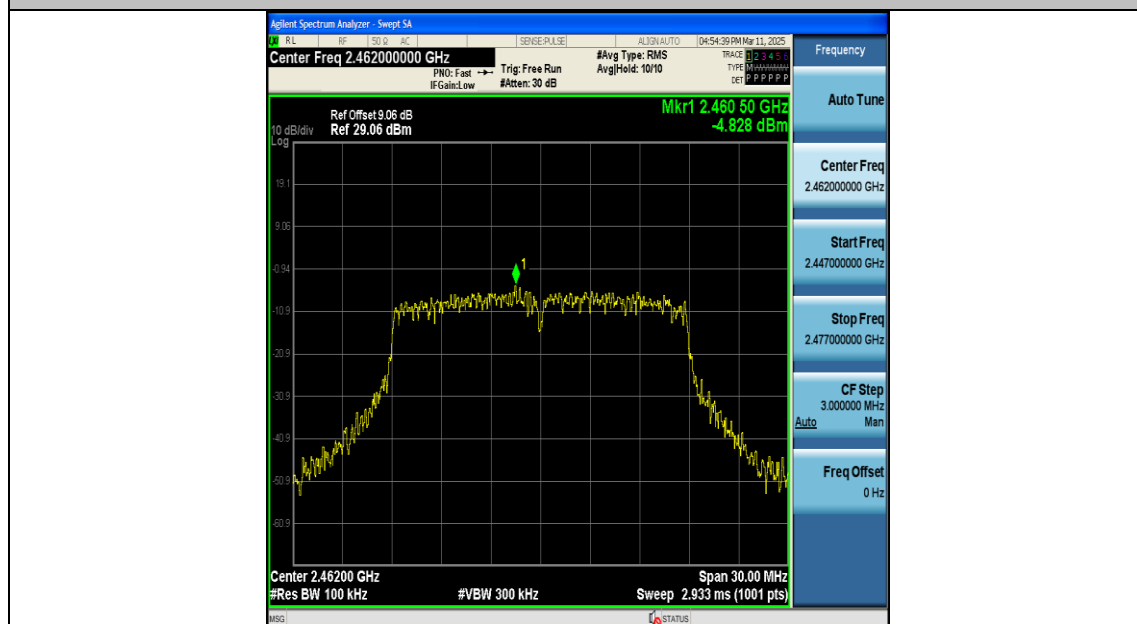
11N20SISO-Ant1-2437-0~Reference-PASS



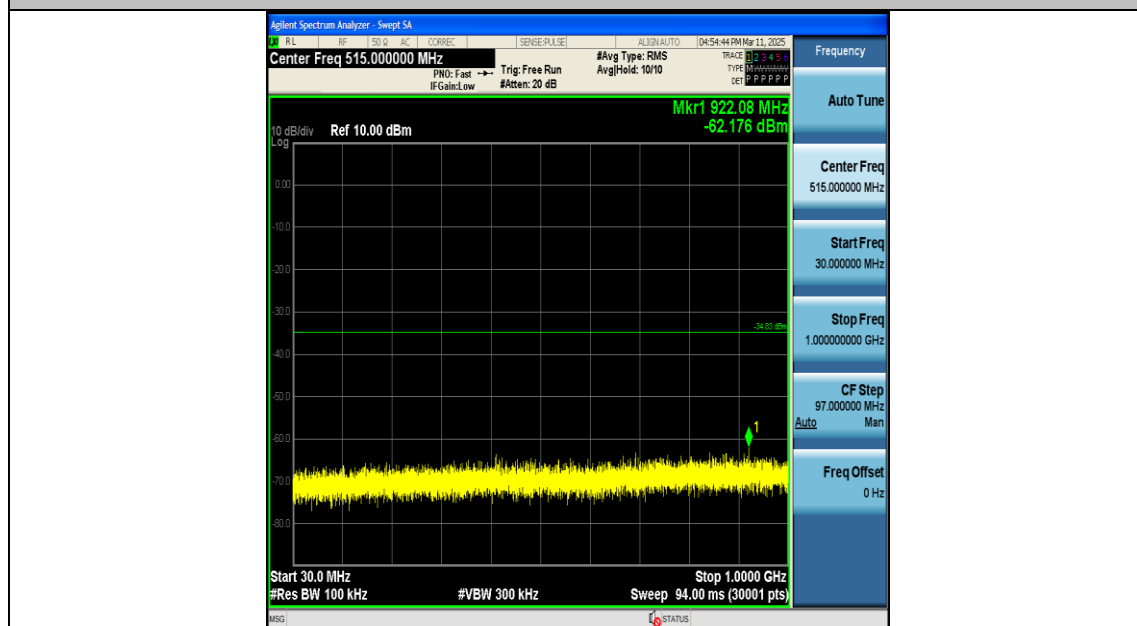
11N20SISO-Ant1-2437-30~1000-PASS



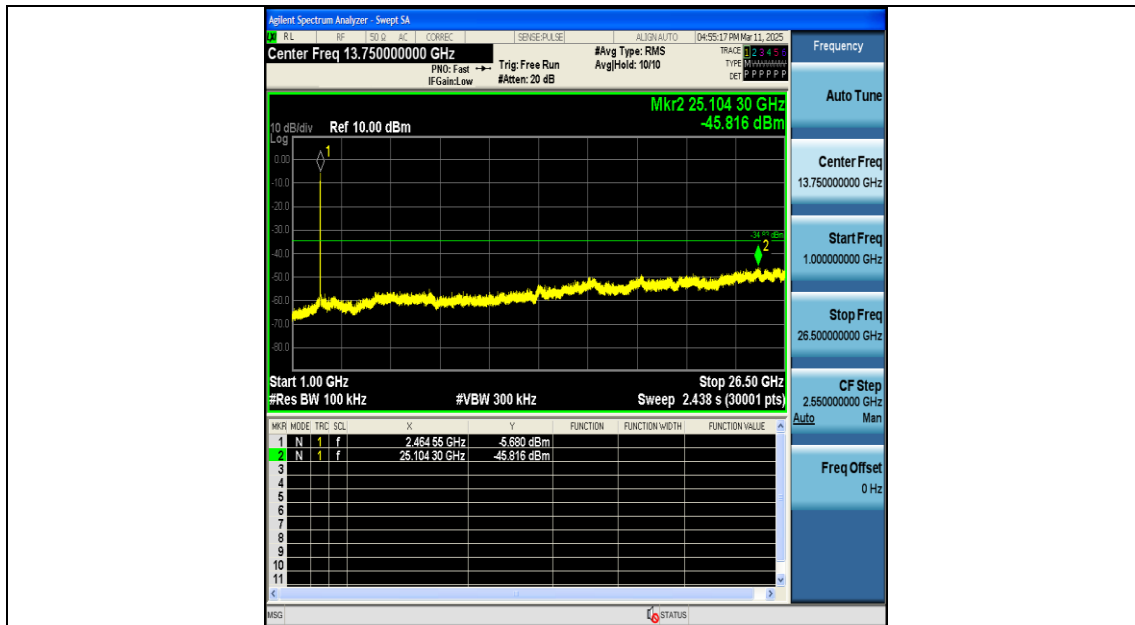
11N20SISO-Ant1-2437-1000~26500-PASS



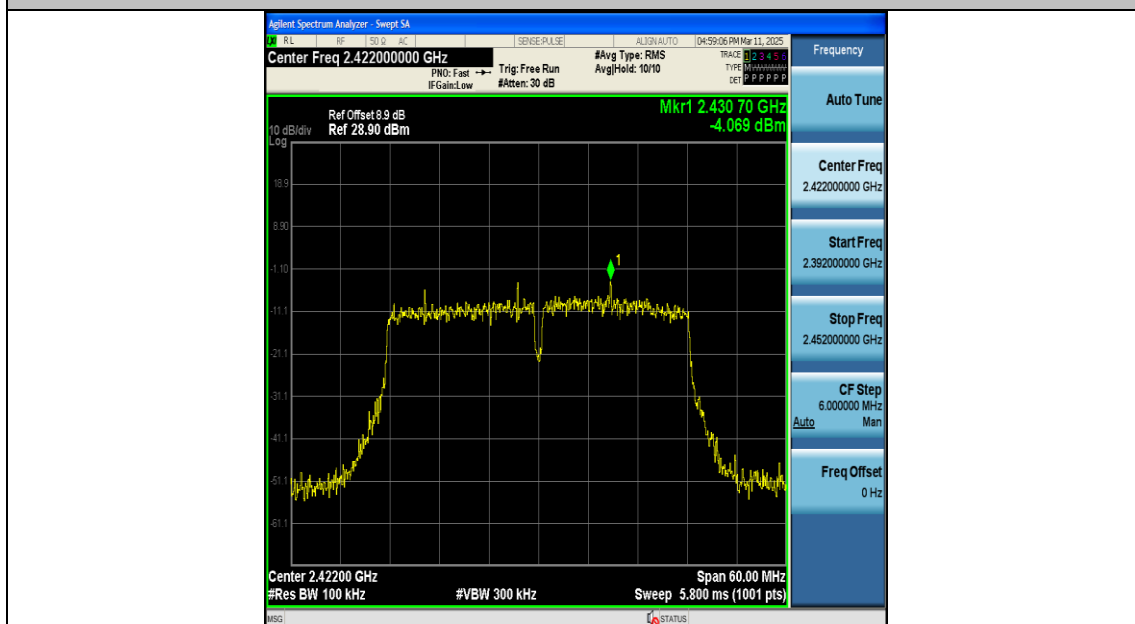
11N20SISO-Ant1-2462-0~Reference-PASS



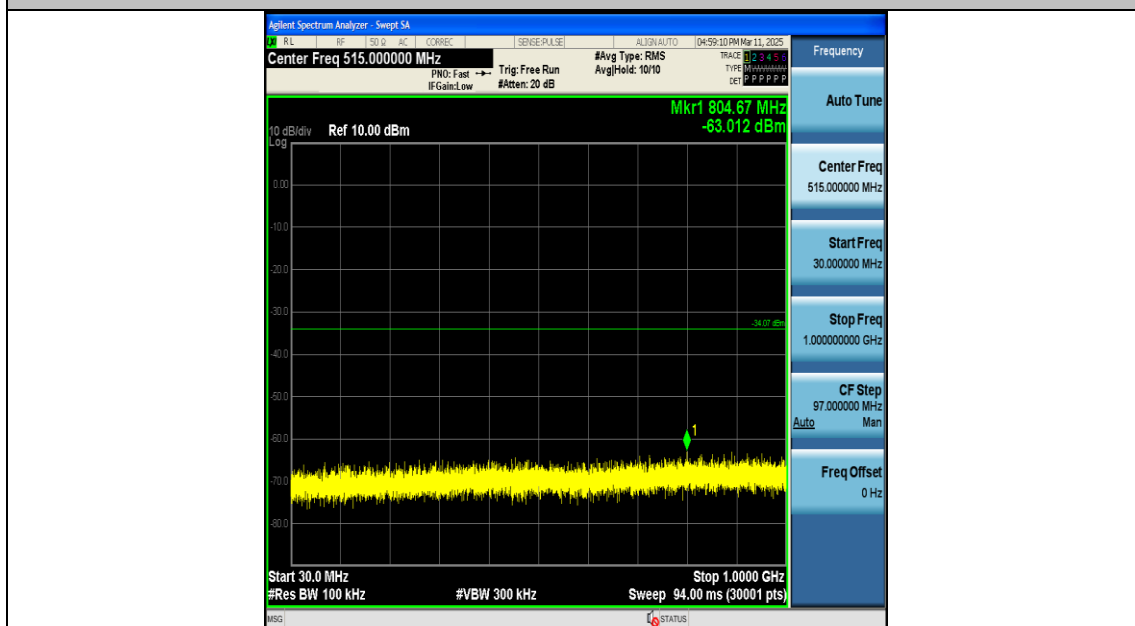
11N20SISO-Ant1-2462-30~1000-PASS



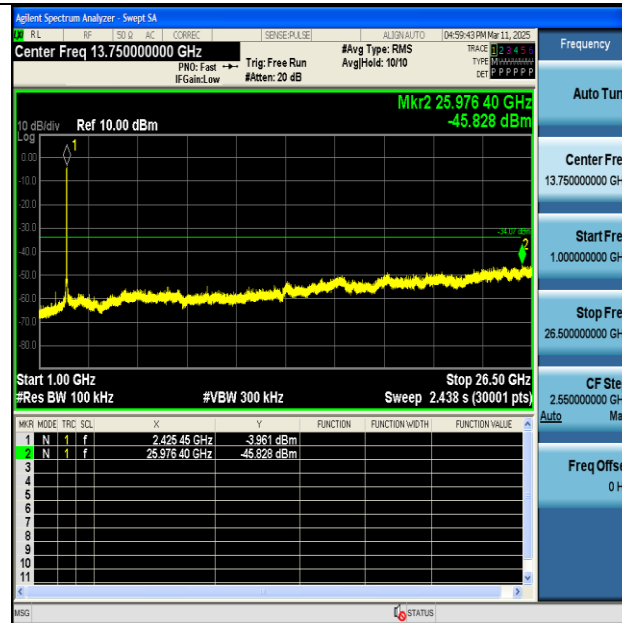
11N20SISO-Ant1-2462-1000~26500-PASS



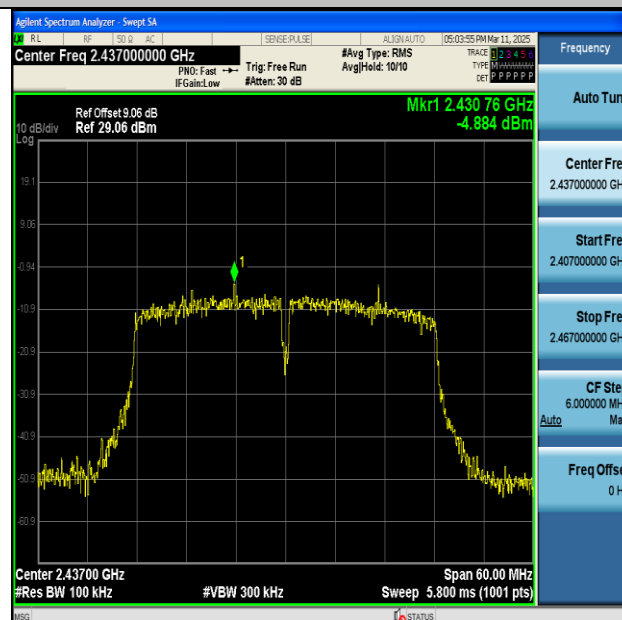
11N40SISO-Ant1-2422-0~Reference-PASS



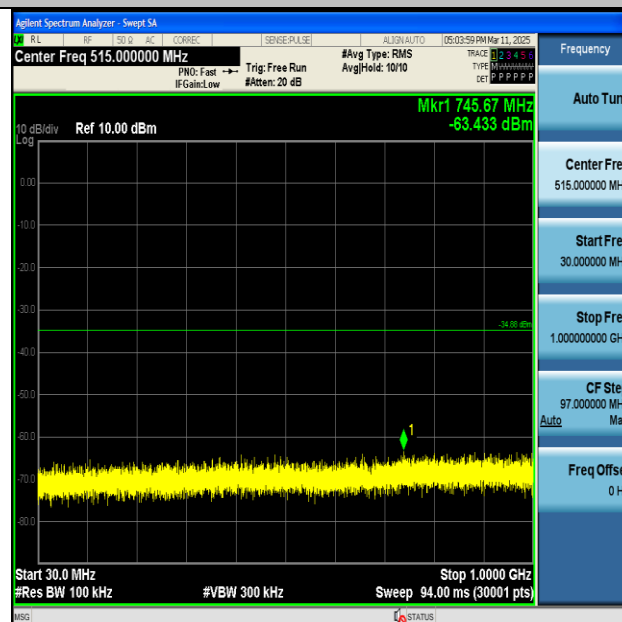
11N40SISO-Ant1-2422-30~1000-PASS



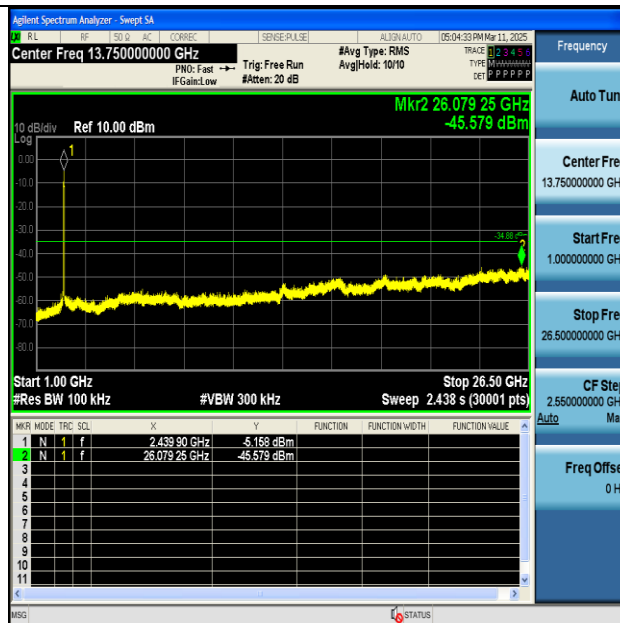
11N40SISO-Ant1-2422-1000~26500-PASS



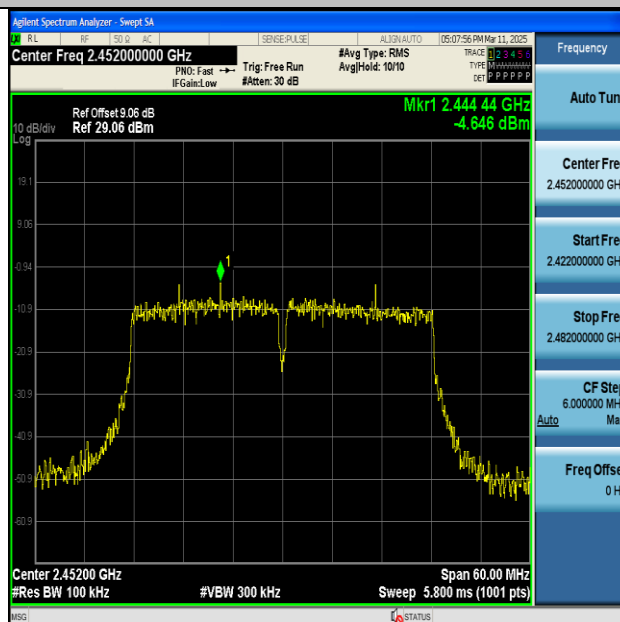
11N40SISO-Ant1-2437-0~Reference-PASS



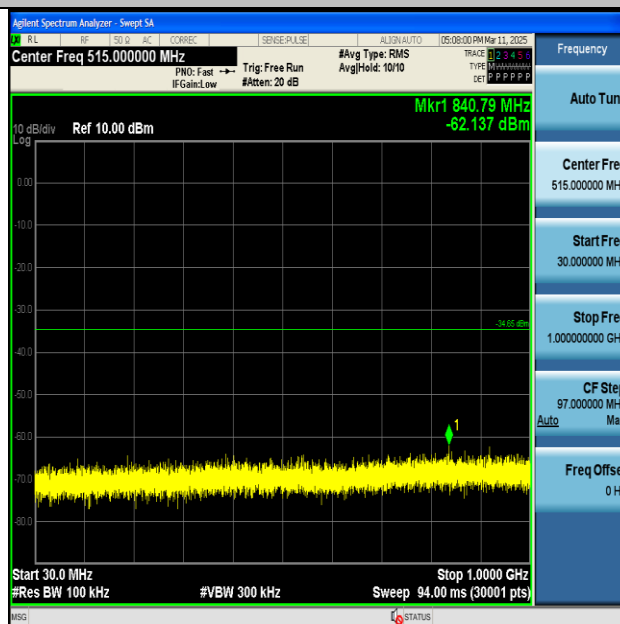
11N40SISO-Ant1-2437-30~1000-PASS



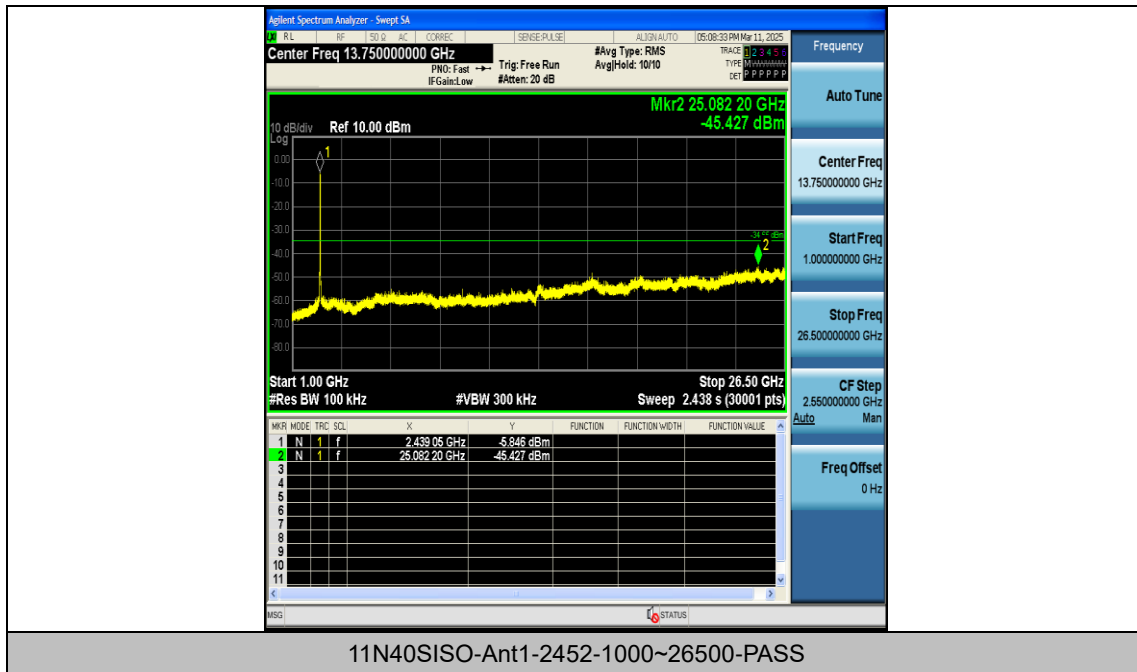
11N40SISO-Ant1-2437-1000~26500-PASS



11N40SISO-Ant1-2452-0~Reference-PASS



11N40SISO-Ant1-2452-30~1000-PASS

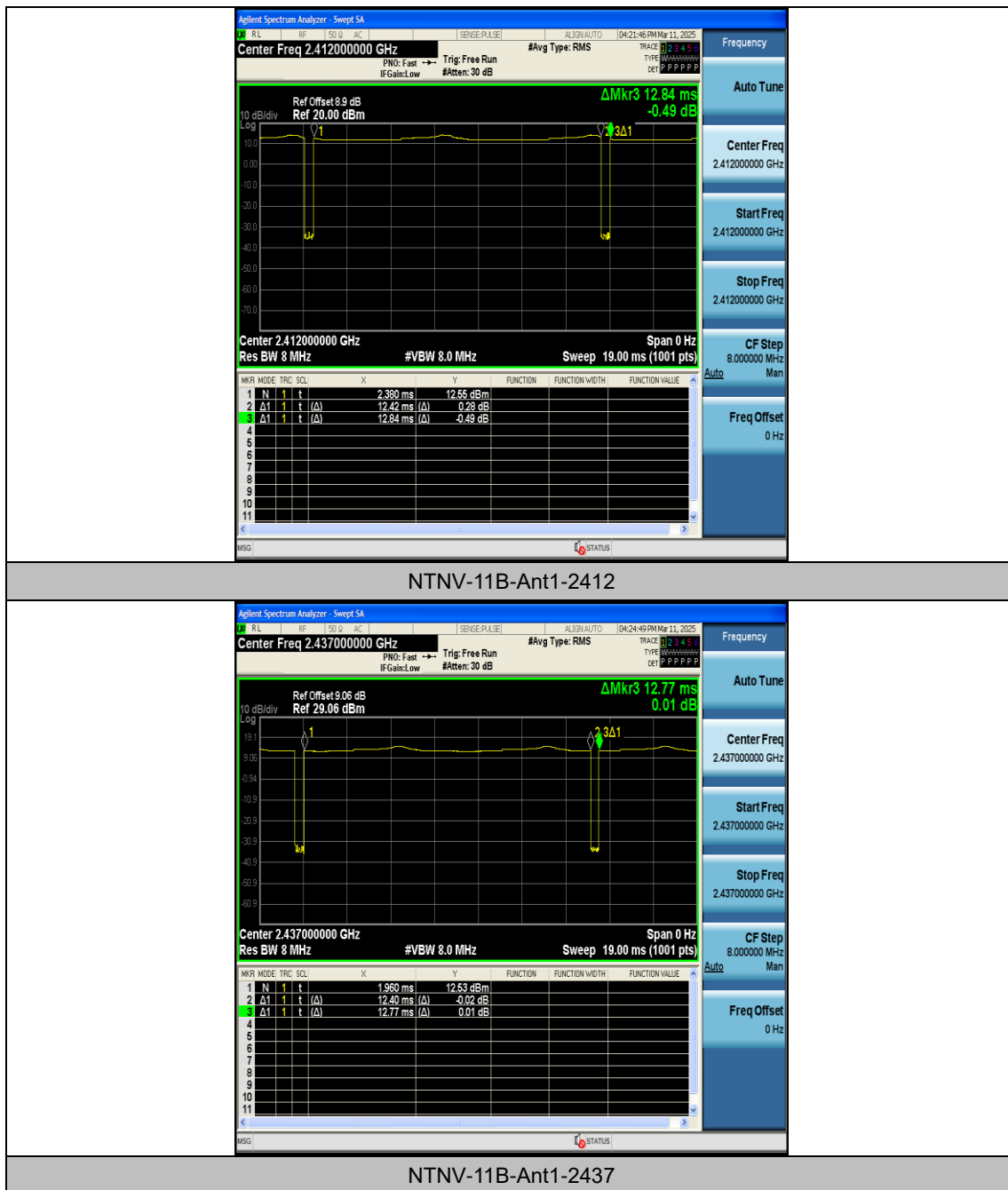


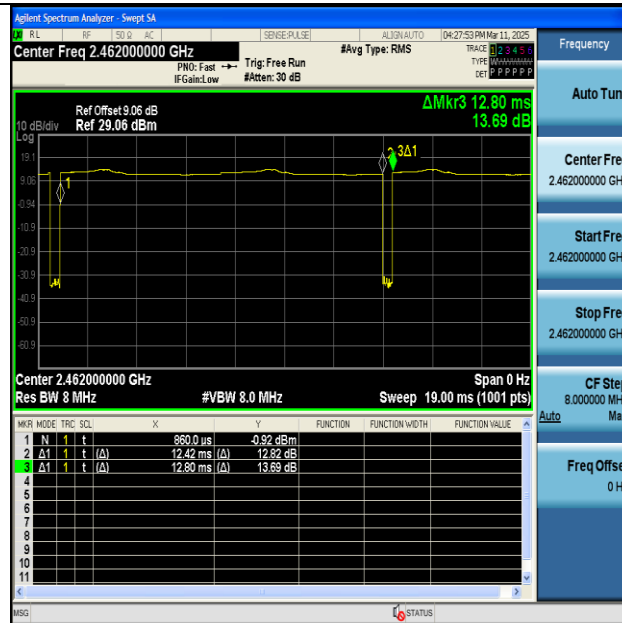
Appendix G: Duty Cycle

Test Result

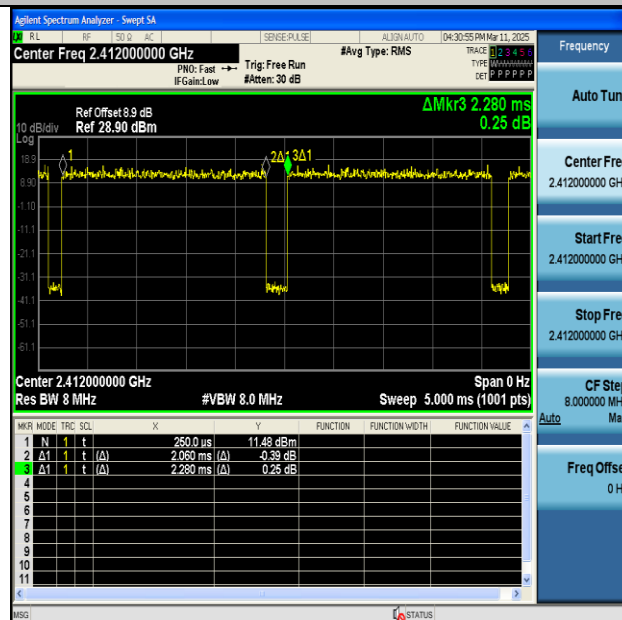
Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	12.42	12.84	96.73	0.14
11B	Ant1	2437	12.40	12.77	97.10	0.13
11B	Ant1	2462	12.42	12.80	97.03	0.13
11G	Ant1	2412	2.06	2.28	90.35	0.44
11G	Ant1	2437	2.07	2.26	91.59	0.38
11G	Ant1	2462	2.06	2.25	91.56	0.38
11N20SISO	Ant1	2412	1.92	2.11	91.00	0.41
11N20SISO	Ant1	2437	1.92	2.13	90.14	0.45
11N20SISO	Ant1	2462	1.92	2.10	91.43	0.39
11N40SISO	Ant1	2422	0.94	1.15	81.74	0.88
11N40SISO	Ant1	2437	0.94	1.16	81.03	0.91
11N40SISO	Ant1	2452	0.94	1.17	80.34	0.95

Test Graphs

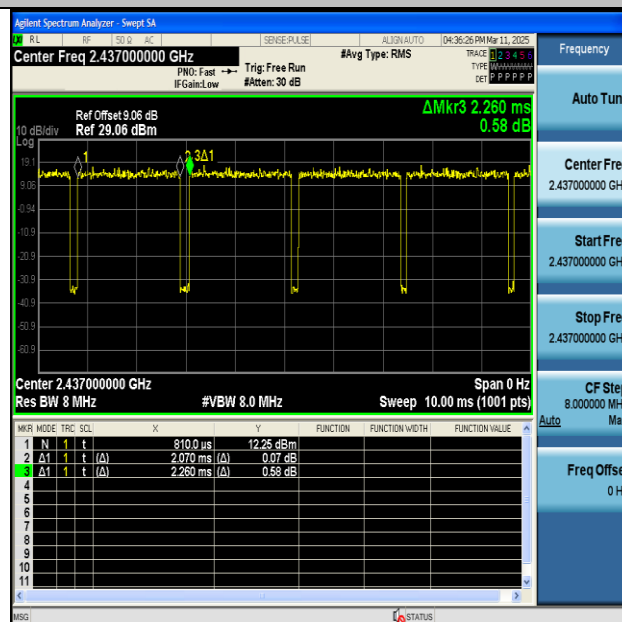




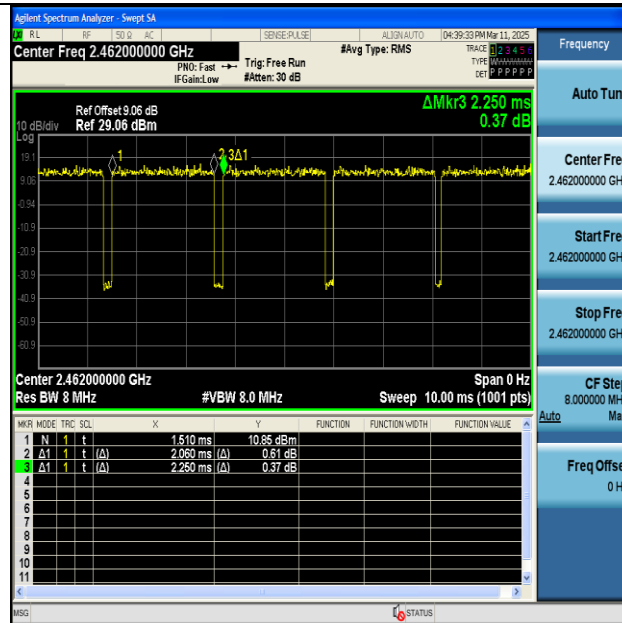
NTNV-11B-Ant1-2462



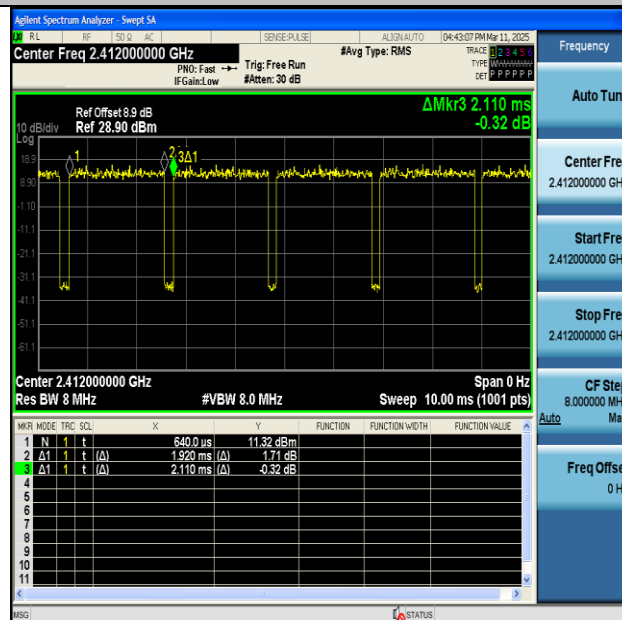
NTNV-11G-Ant1-2412



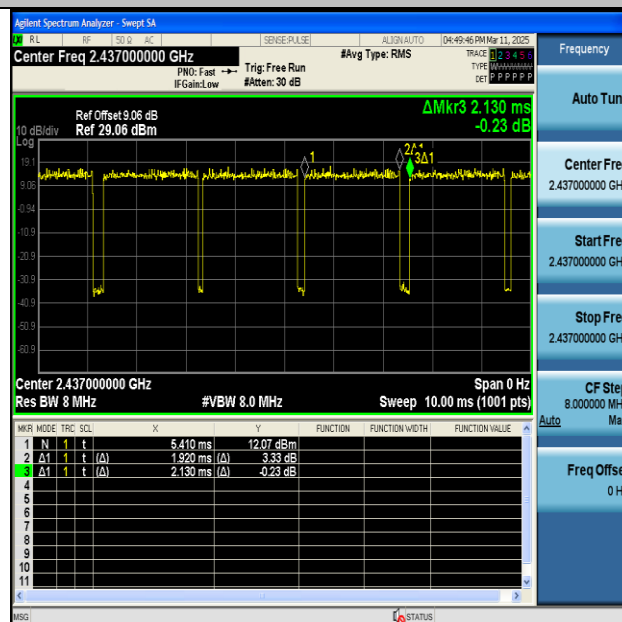
NTNV-11G-Ant1-2437



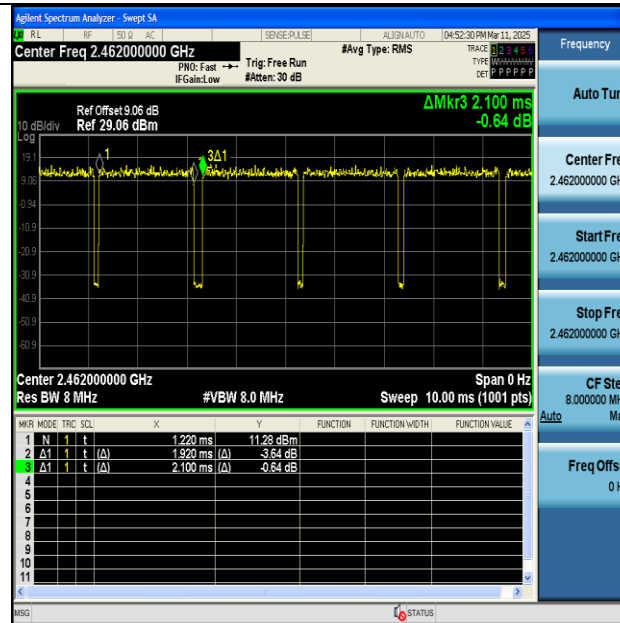
NTNV-11G-Ant1-2462



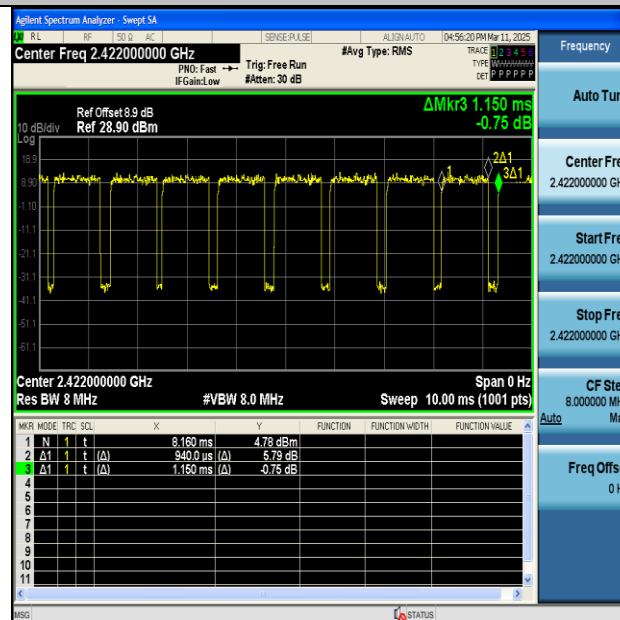
NTNV-11N20SISO-Ant1-2412



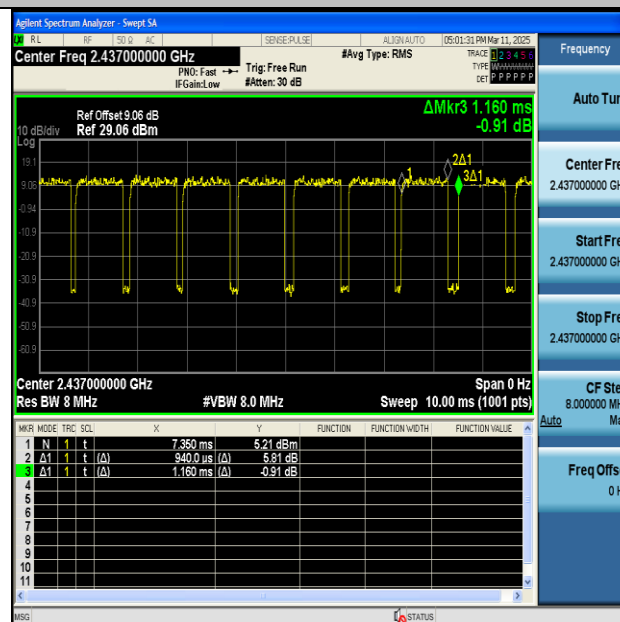
NTNV-11N20SISO-Ant1-2437



NTNV-11N20SISO-Ant1-2462



NTNV-11N40SISO-Ant1-2422



NTNV-11N40SISO-Ant1-2437

