



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

Product Name: Smart Projector

Trade Mark: /

Test Model: A300

FCC ID: 2BK4U-A300

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	8.560	2407.480	2416.040	0.5	PASS
11B	Ant1	2437	8.000	2433.000	2441.000	0.5	PASS
11B	Ant1	2462	8.560	2457.960	2466.520	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
11G	Ant1	2437	16.280	2428.840	2445.120	0.5	PASS
11G	Ant1	2462	15.960	2453.880	2469.840	0.5	PASS
11N20SISO	Ant1	2412	17.640	2403.160	2420.800	0.5	PASS
11N20SISO	Ant1	2437	16.960	2428.200	2445.160	0.5	PASS
11N20SISO	Ant1	2462	17.320	2453.200	2470.520	0.5	PASS
11N40SISO	Ant1	2422	36.240	2403.840	2440.080	0.5	PASS
11N40SISO	Ant1	2437	34.080	2419.160	2453.240	0.5	PASS
11N40SISO	Ant1	2452	36.000	2433.840	2469.840	0.5	PASS
11AX20SISO	Ant1	2412	18.920	2402.520	2421.440	0.5	PASS
11AX20SISO	Ant1	2437	18.840	2427.560	2446.400	0.5	PASS
11AX20SISO	Ant1	2462	18.720	2452.600	2471.320	0.5	PASS
11AX40SISO	Ant1	2422	36.800	2403.120	2439.920	0.5	PASS
11AX40SISO	Ant1	2437	36.320	2418.200	2454.520	0.5	PASS
11AX40SISO	Ant1	2452	36.960	2432.960	2469.920	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

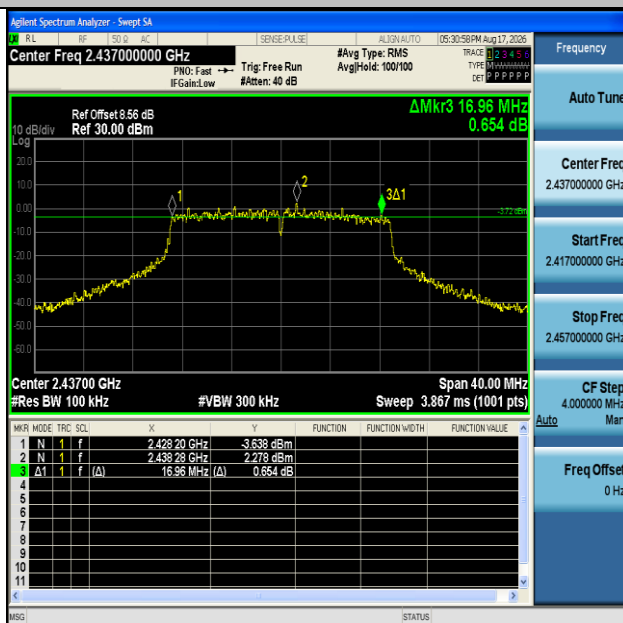


11G-Ant1-2462-PASS





11N20SISO-Ant1-2412-PASS

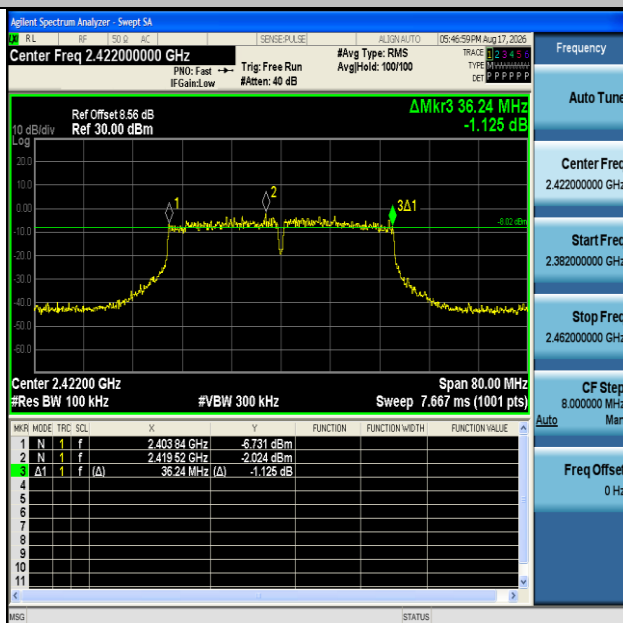


11N20SISO-Ant1-2437-PASS



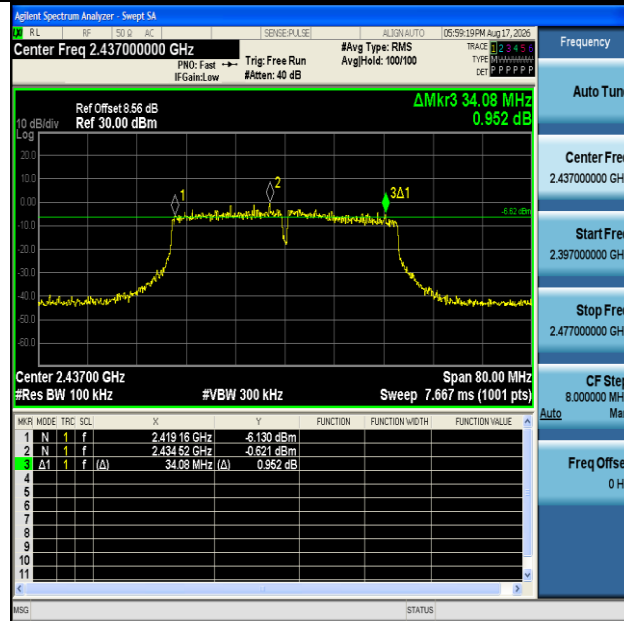


11N20SISO-Ant1-2462-PASS

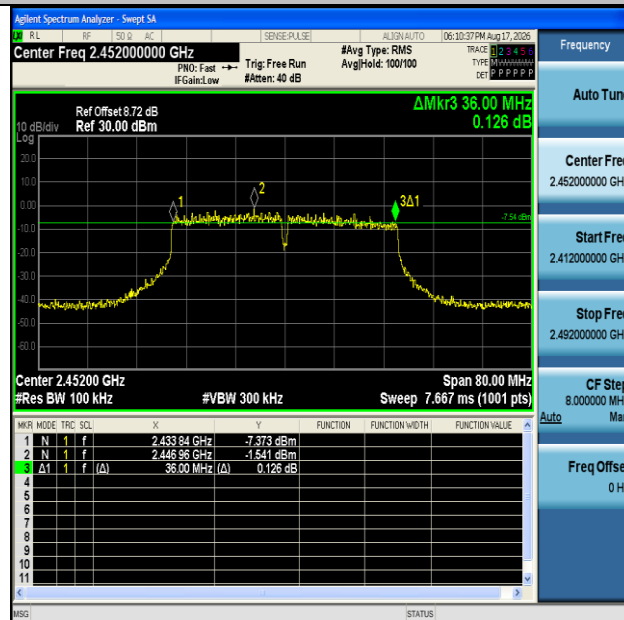


11N40SISO-Ant1-2422-PASS



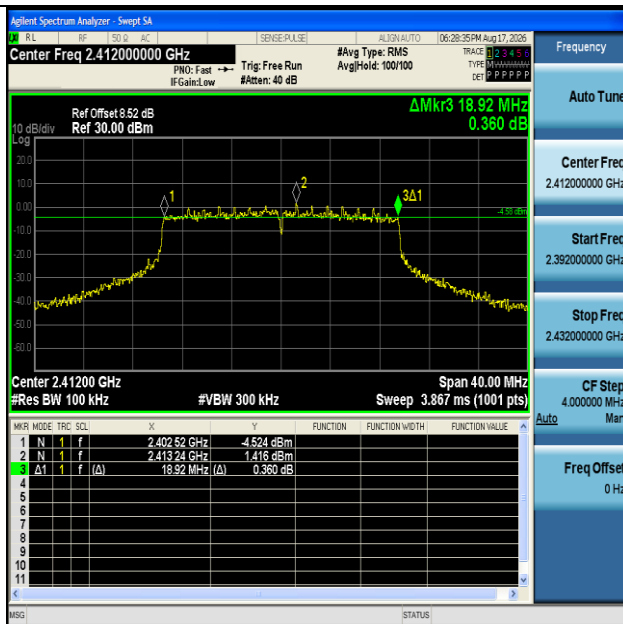


11N40SISO-Ant1-2437-PASS

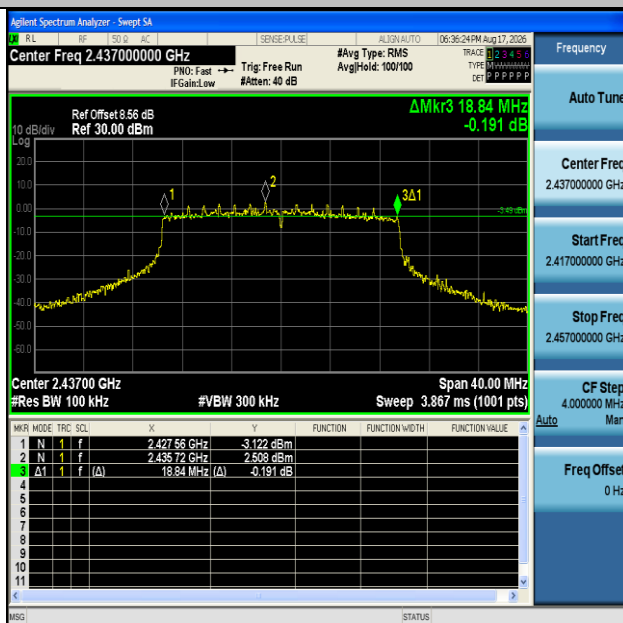


11N40SISO-Ant1-2452-PASS





11AX20SISO-Ant1-2412-PASS

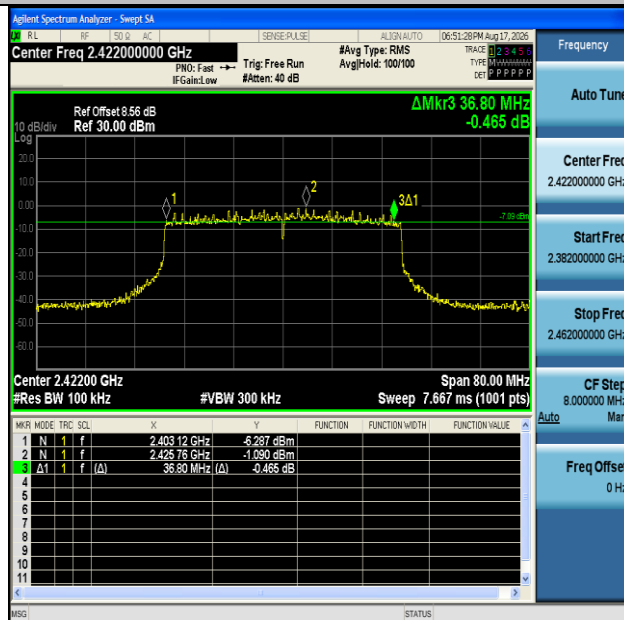


11AX20SISO-Ant1-2437-PASS



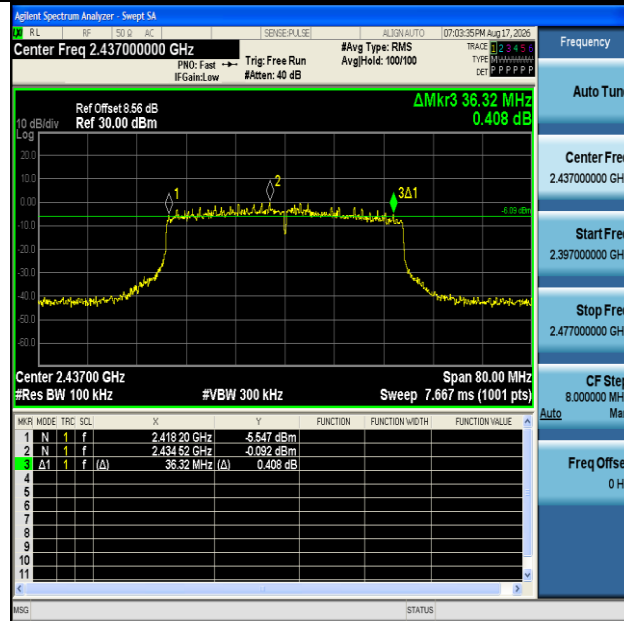


11AX20SISO-Ant1-2462-PASS

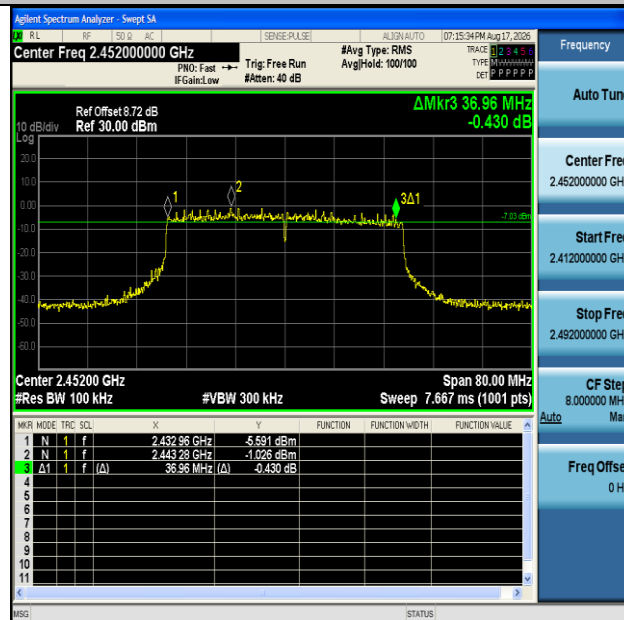


11AX40SISO-Ant1-2422-PASS





11AX40SISO-Ant1-2437-PASS



11AX40SISO-Ant1-2452-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	13.272	2405.4035	2418.6755	---	---
11B	Ant1	2437	13.137	2430.4276	2443.5646	---	---
11B	Ant1	2462	13.258	2455.4291	2468.6871	---	---
11G	Ant1	2412	17.434	2403.2426	2420.6766	---	---
11G	Ant1	2437	17.208	2428.3114	2445.5194	---	---
11G	Ant1	2462	17.401	2453.2658	2470.6668	---	---
11N20SISO	Ant1	2412	18.201	2402.8799	2421.0809	---	---
11N20SISO	Ant1	2437	18.107	2427.8816	2445.9886	---	---
11N20SISO	Ant1	2462	18.203	2452.9077	2471.1107	---	---
11N40SISO	Ant1	2422	36.547	2403.7385	2440.2855	---	---
11N40SISO	Ant1	2437	36.333	2418.7100	2455.0430	---	---
11N40SISO	Ant1	2452	36.667	2433.5960	2470.2630	---	---
11AX20SISO	Ant1	2412	19.206	2402.4071	2421.6131	---	---
11AX20SISO	Ant1	2437	19.098	2427.4244	2446.5224	---	---
11AX20SISO	Ant1	2462	19.182	2452.4088	2471.5908	---	---
11AX40SISO	Ant1	2422	37.965	2403.0339	2440.9989	---	---
11AX40SISO	Ant1	2437	37.796	2418.0654	2455.8614	---	---
11AX40SISO	Ant1	2452	38.046	2432.9528	2470.9988	---	---

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



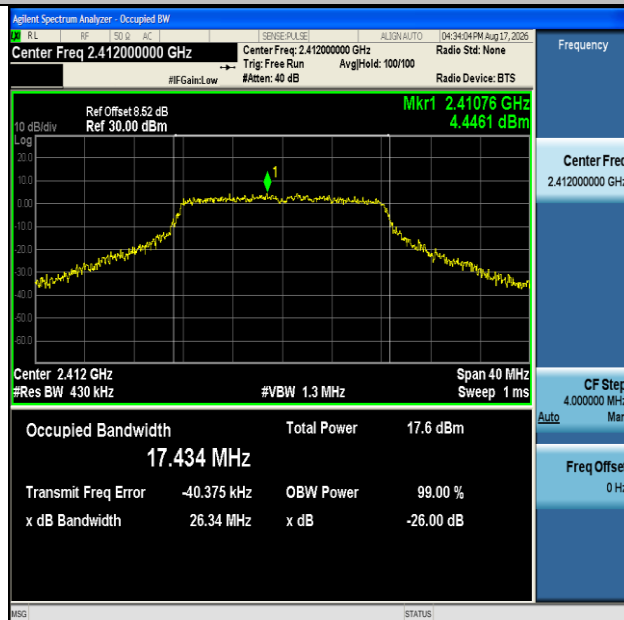


Test Graphs



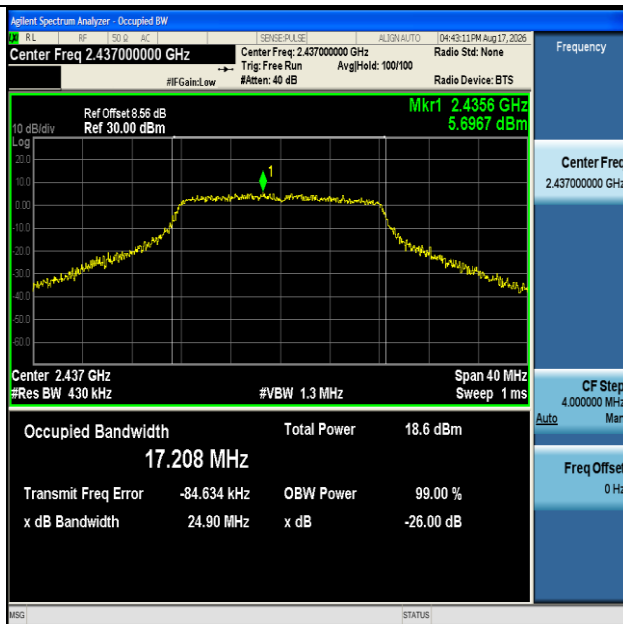


11B-Ant1-2462

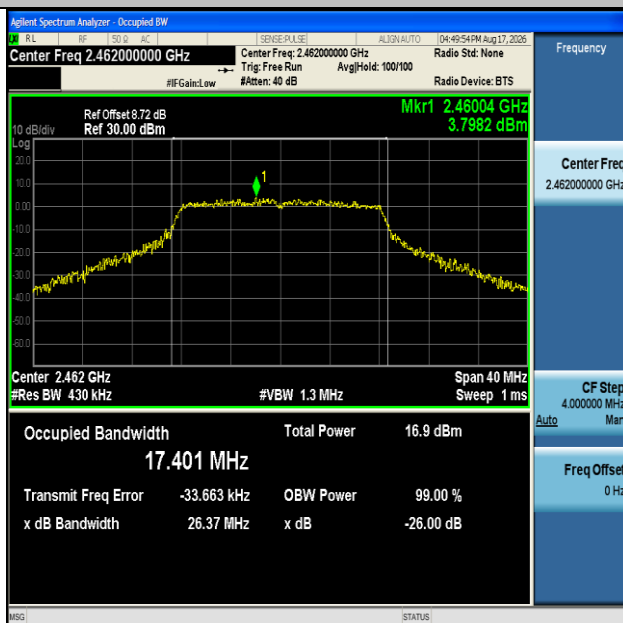


11G-Ant1-2412



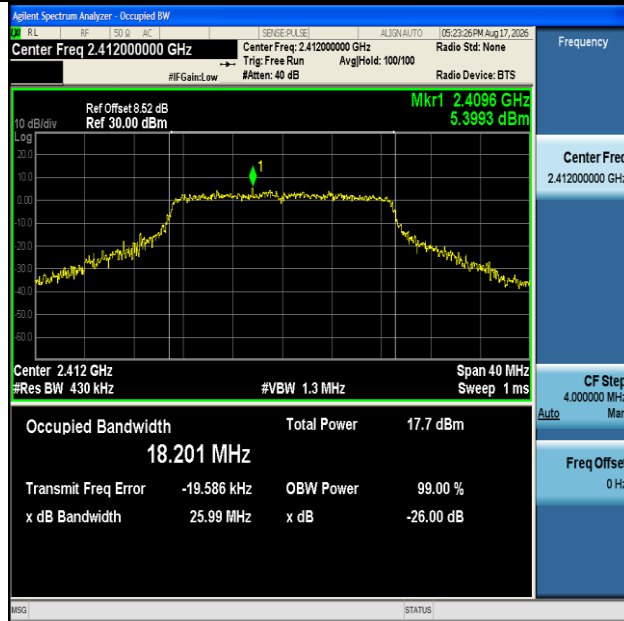


11G-Ant1-2437

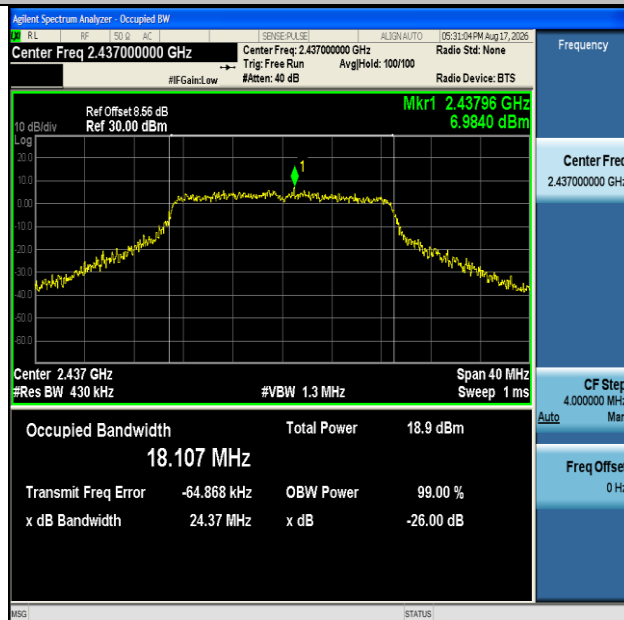


11G-Ant1-2462



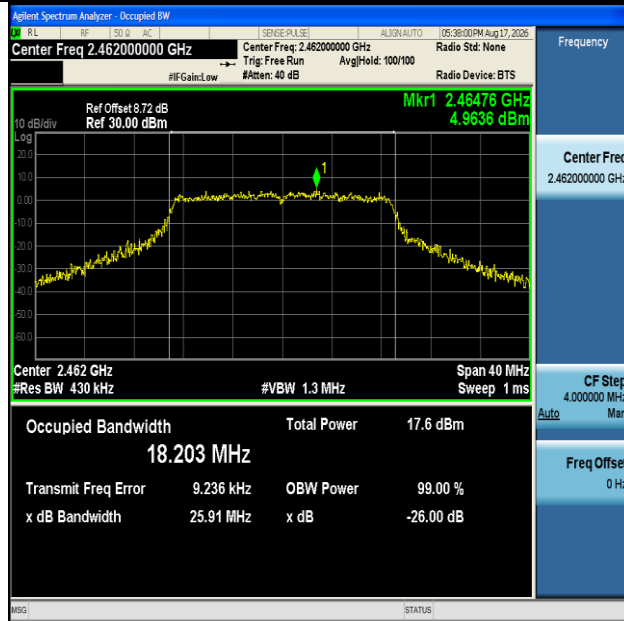


11N20SISO-Ant1-2412

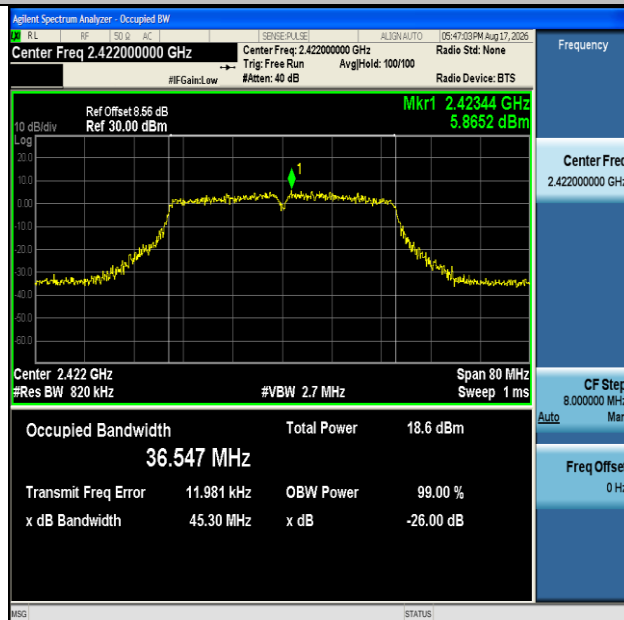


11N20SISO-Ant1-2437



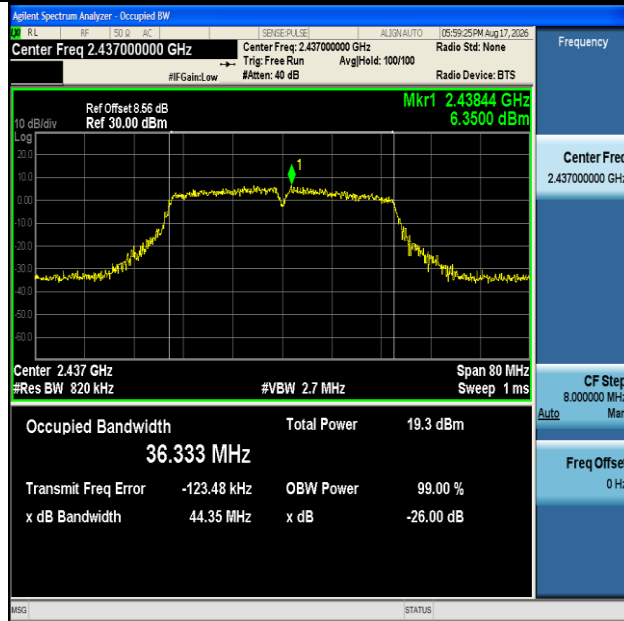


11N20SISO-Ant1-2462

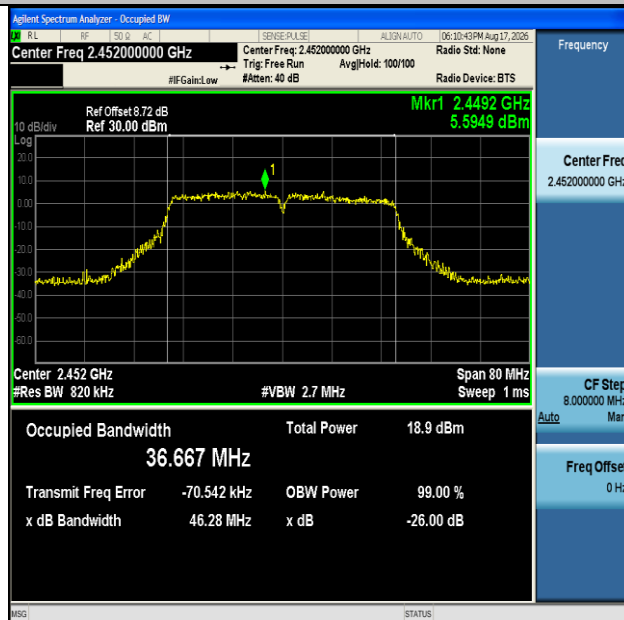


11N40SISO-Ant1-2422



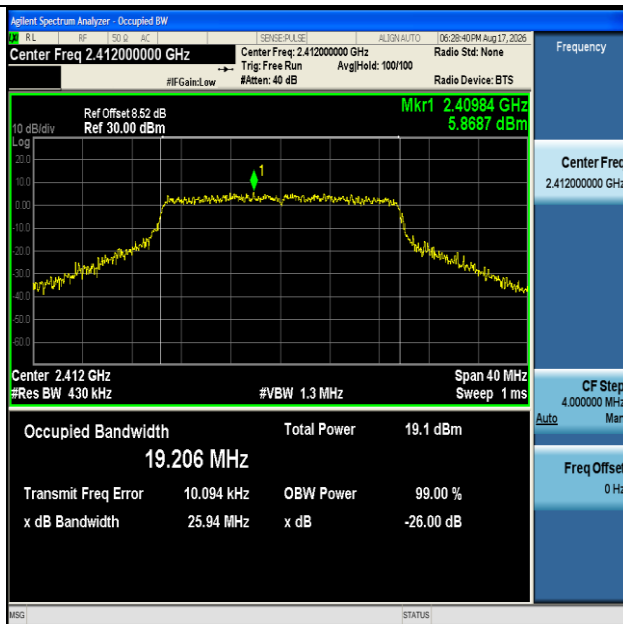


11N40SISO-Ant1-2437

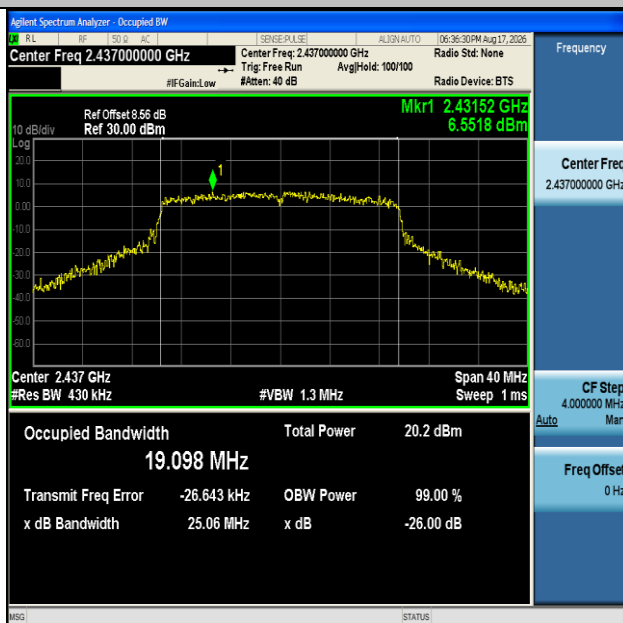


11N40SISO-Ant1-2452



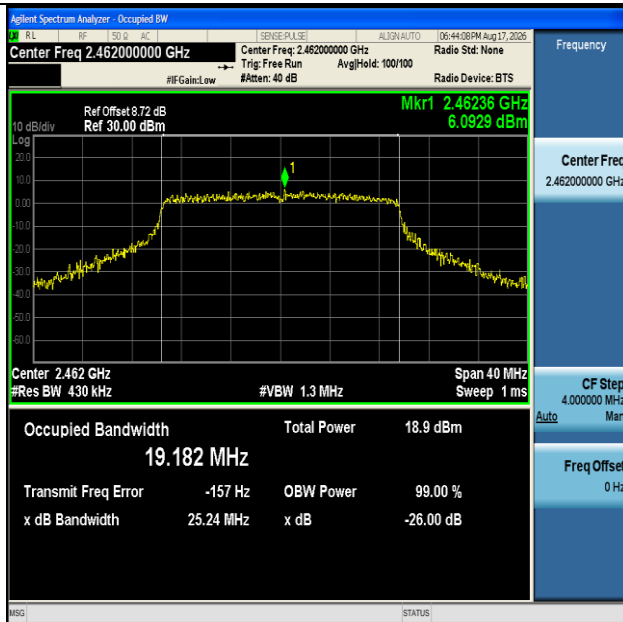


11AX20SISO-Ant1-2412

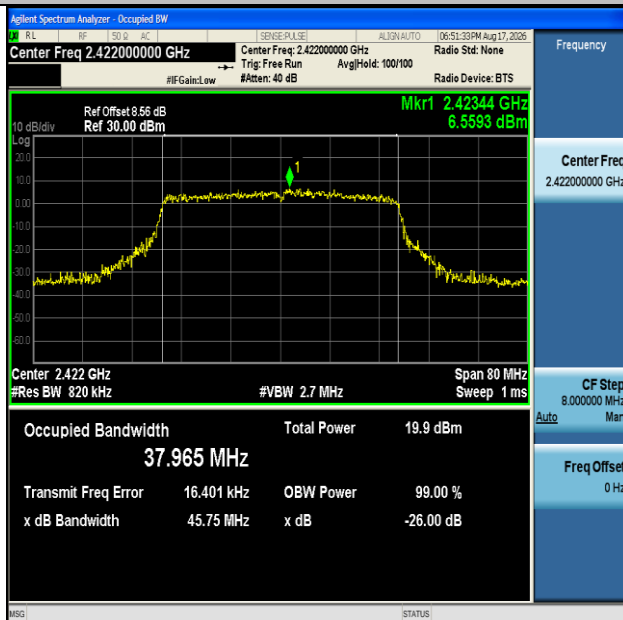


11AX20SISO-Ant1-2437



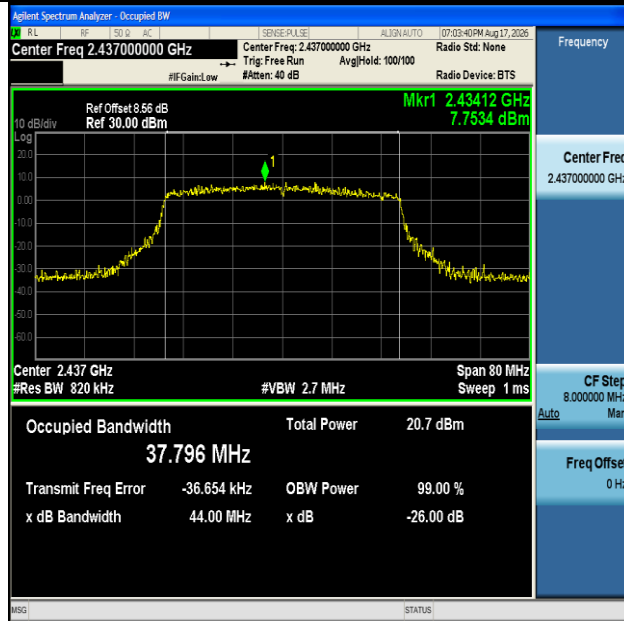


11AX20SISO-Ant1-2462

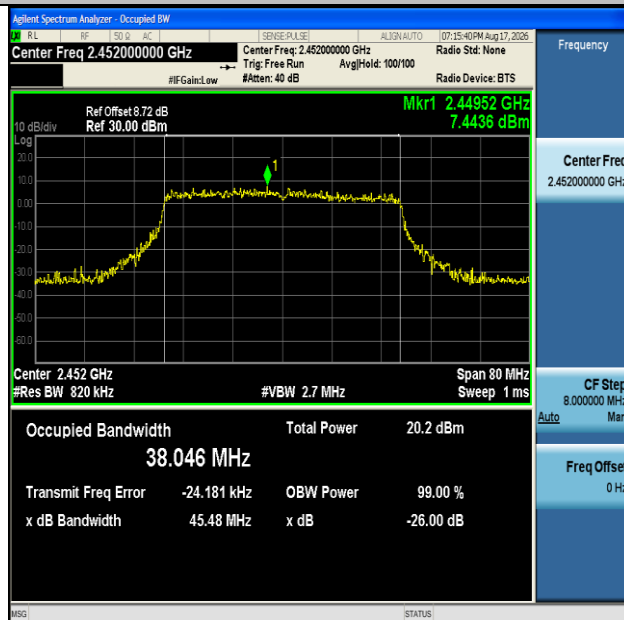


11AX40SISO-Ant1-2422





11AX40SISO-Ant1-2437



11AX40SISO-Ant1-2452





Appendix C: Maximum Peak conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	14.44	≤30.00	PASS
11B	Ant1	2437	14.38	≤30.00	PASS
11B	Ant1	2462	12.53	≤30.00	PASS
11G	Ant1	2412	18.43	≤30.00	PASS
11G	Ant1	2437	19.62	≤30.00	PASS
11G	Ant1	2462	17.97	≤30.00	PASS
11N20SISO	Ant1	2412	18.45	≤30.00	PASS
11N20SISO	Ant1	2437	19.55	≤30.00	PASS
11N20SISO	Ant1	2462	18.34	≤30.00	PASS
11N40SISO	Ant1	2422	18.70	≤30.00	PASS
11N40SISO	Ant1	2437	19.52	≤30.00	PASS
11N40SISO	Ant1	2452	18.97	≤30.00	PASS
11AX20SISO	Ant1	2412	19.64	≤30.00	PASS
11AX20SISO	Ant1	2437	20.77	≤30.00	PASS
11AX20SISO	Ant1	2462	19.62	≤30.00	PASS
11AX40SISO	Ant1	2422	19.82	≤30.00	PASS
11AX40SISO	Ant1	2437	20.61	≤30.00	PASS
11AX40SISO	Ant1	2452	20.12	≤30.00	PASS

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





Appendix D: Maximum peak power spectral density

Test Result

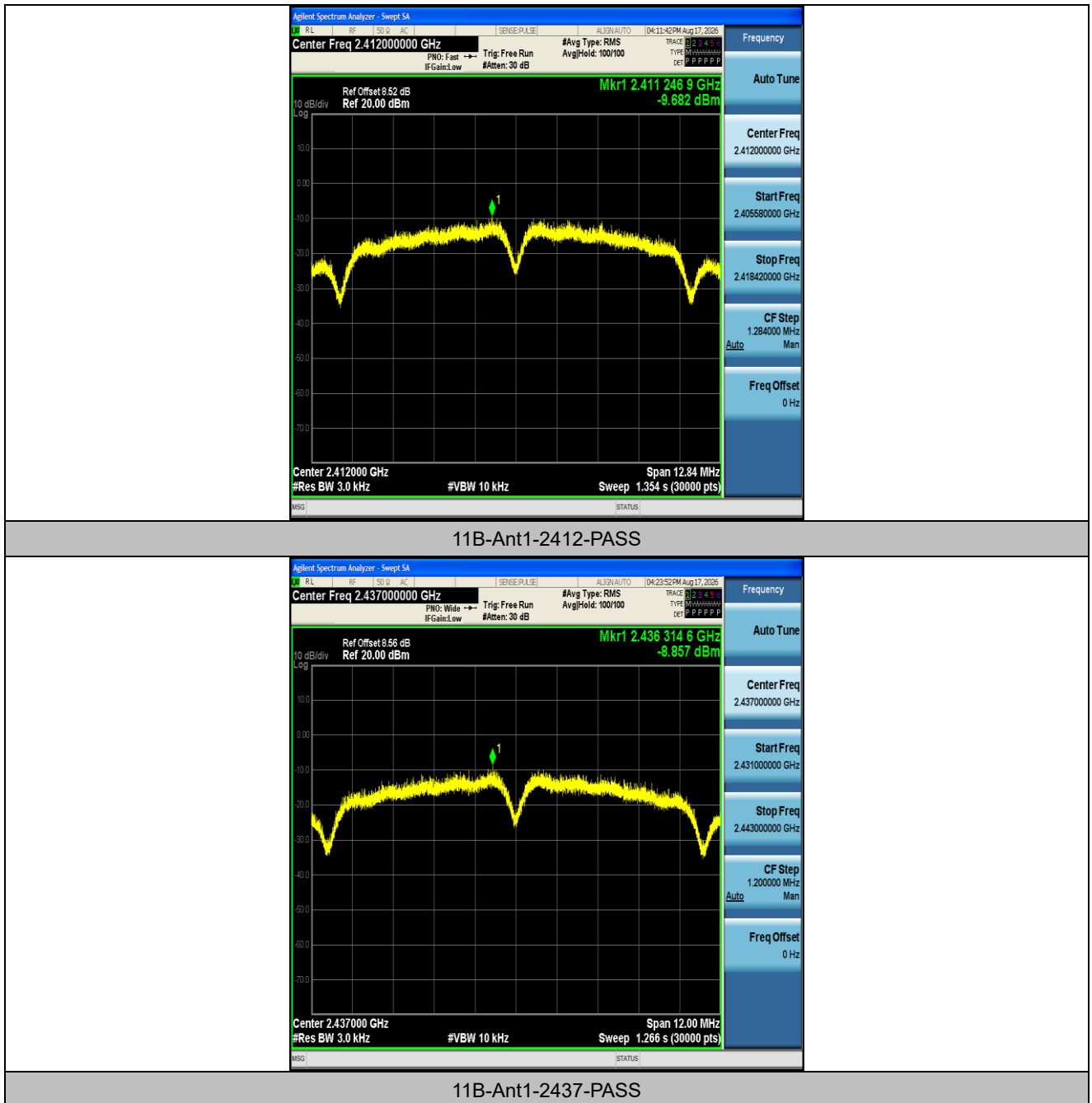
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-9.68	≤8.00	PASS
11B	Ant1	2437	-8.86	≤8.00	PASS
11B	Ant1	2462	-11.86	≤8.00	PASS
11G	Ant1	2412	-14.09	≤8.00	PASS
11G	Ant1	2437	-12.16	≤8.00	PASS
11G	Ant1	2462	-13.74	≤8.00	PASS
11N20SISO	Ant1	2412	-12.21	≤8.00	PASS
11N20SISO	Ant1	2437	-11.52	≤8.00	PASS
11N20SISO	Ant1	2462	-13.03	≤8.00	PASS
11N40SISO	Ant1	2422	-15.47	≤8.00	PASS
11N40SISO	Ant1	2437	-14.46	≤8.00	PASS
11N40SISO	Ant1	2452	-15.09	≤8.00	PASS
11AX20SISO	Ant1	2412	-13.40	≤8.00	PASS
11AX20SISO	Ant1	2437	-12.27	≤8.00	PASS
11AX20SISO	Ant1	2462	-13.67	≤8.00	PASS
11AX40SISO	Ant1	2422	-16.22	≤8.00	PASS
11AX40SISO	Ant1	2437	-14.83	≤8.00	PASS

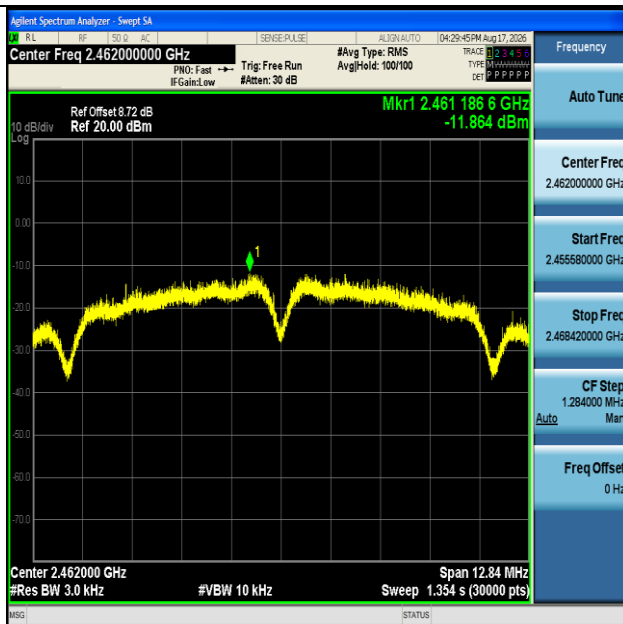
Note: offset(dB) = cable loss(dB) + attenuator factor(dB) + Duty Cycle Factor(dB)



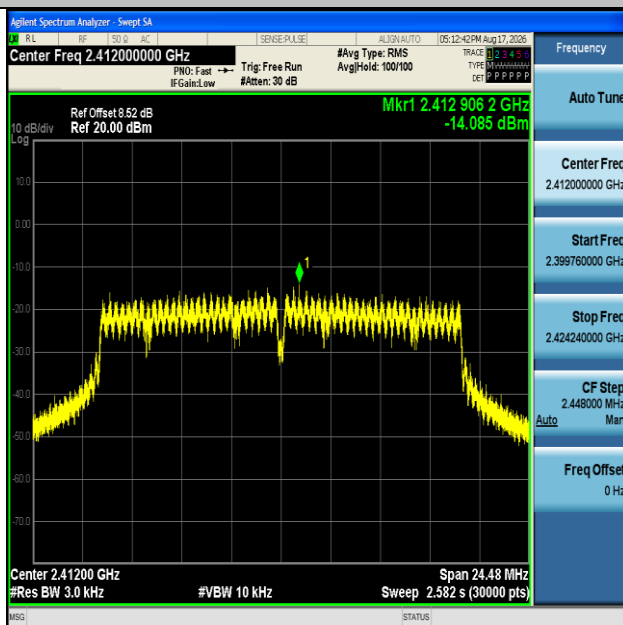


Test Graphs



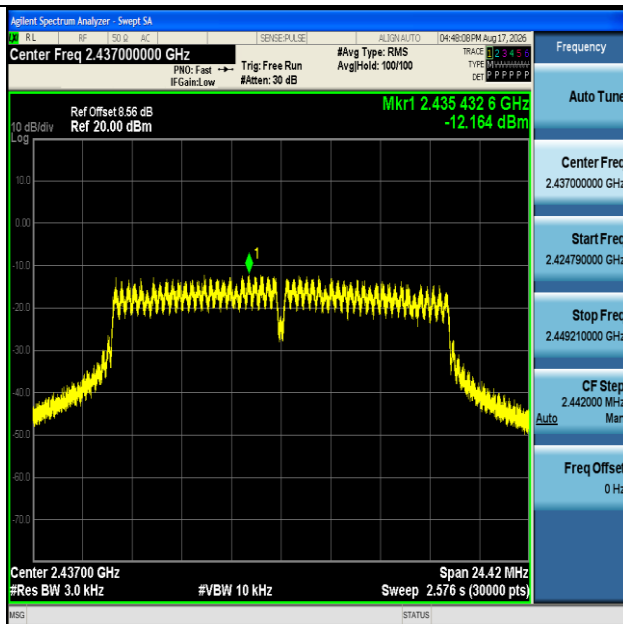


11B-Ant1-2462-PASS

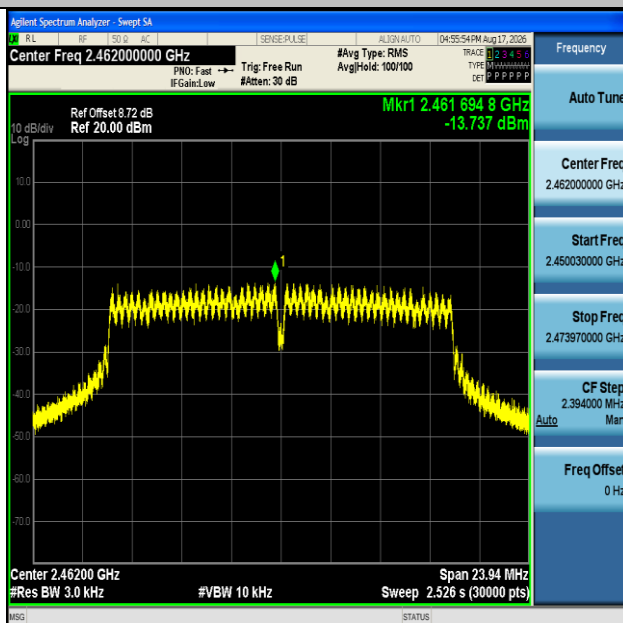


11G-Ant1-2412-PASS



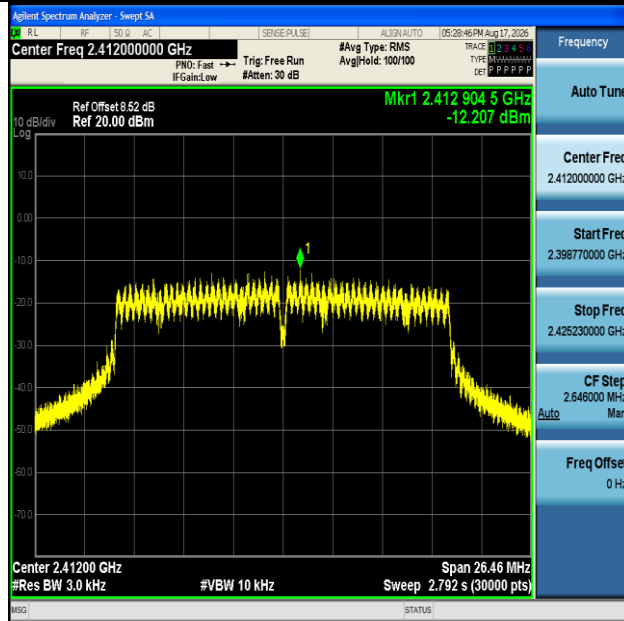


11G-Ant1-2437-PASS

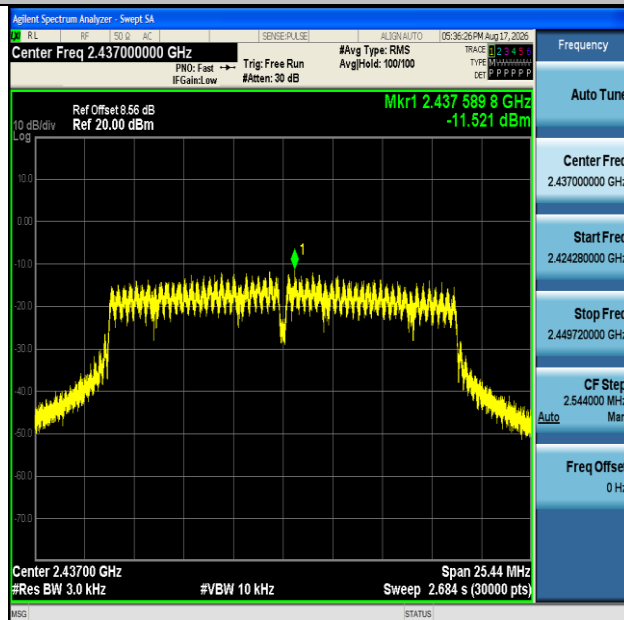


11G-Ant1-2462-PASS



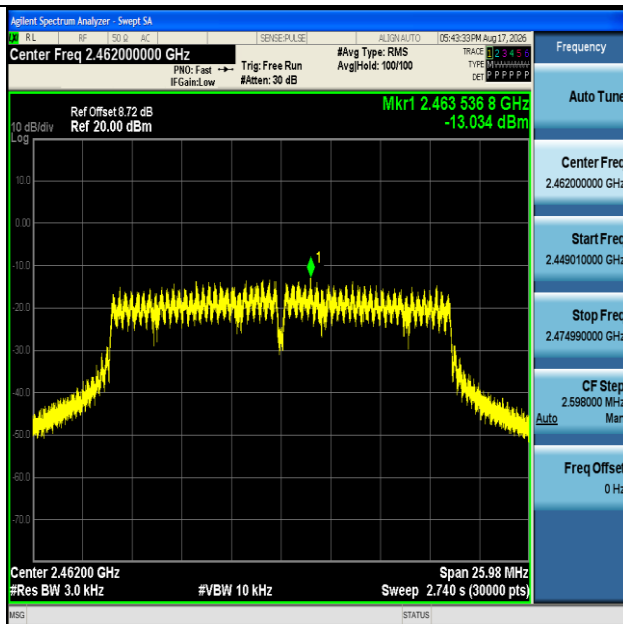


11N20SISO-Ant1-2412-PASS

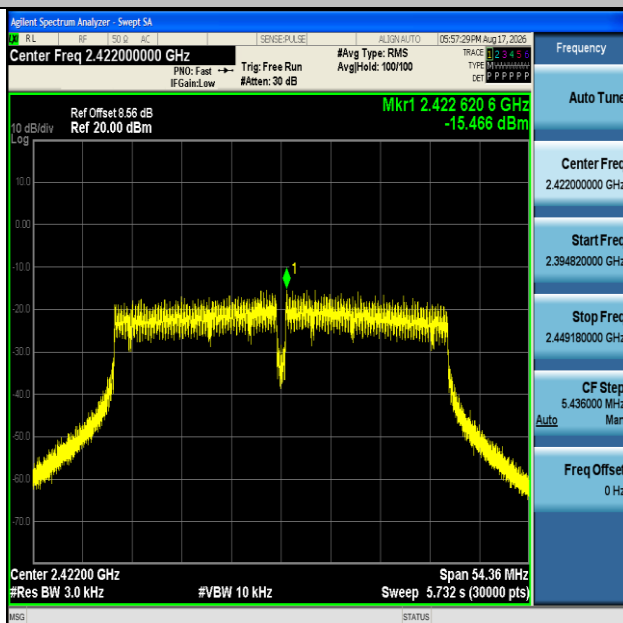


11N20SISO-Ant1-2437-PASS



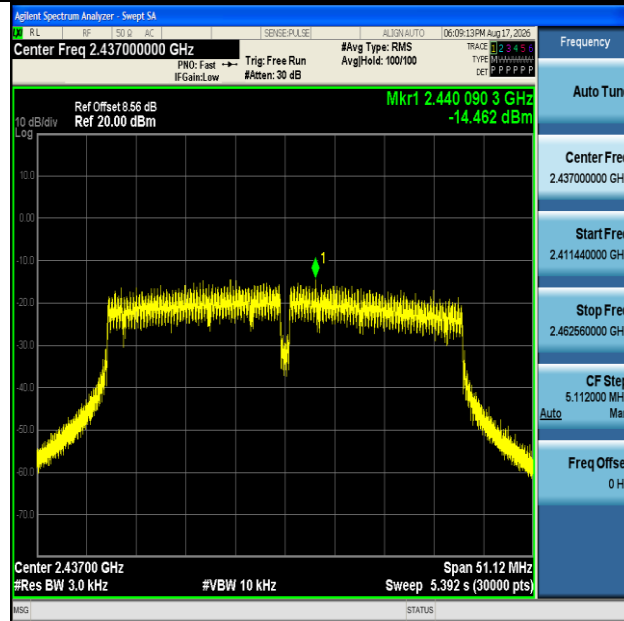


11N20SISO-Ant1-2462-PASS

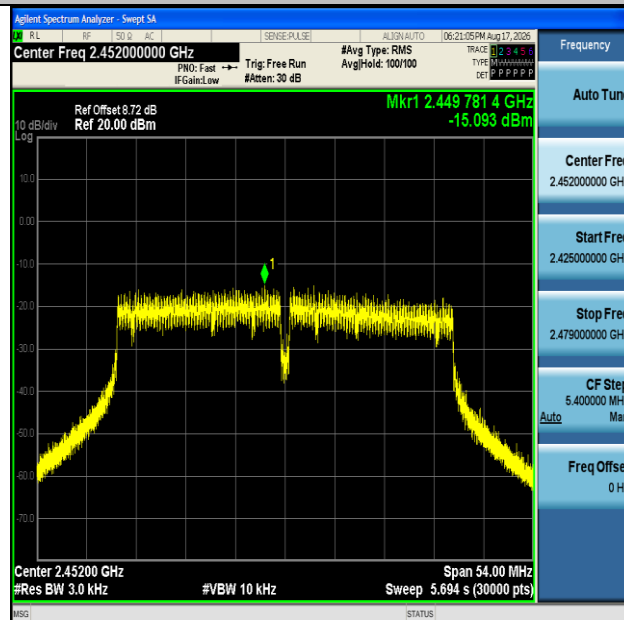


11N40SISO-Ant1-2422-PASS



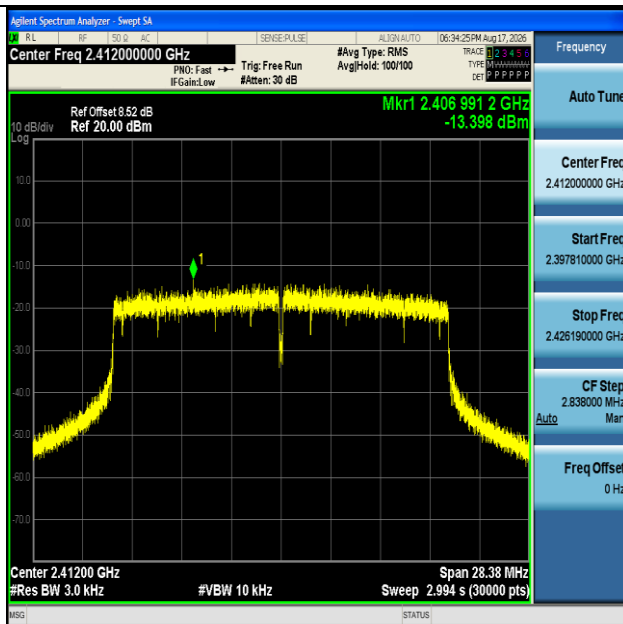


11N40SISO-Ant1-2437-PASS

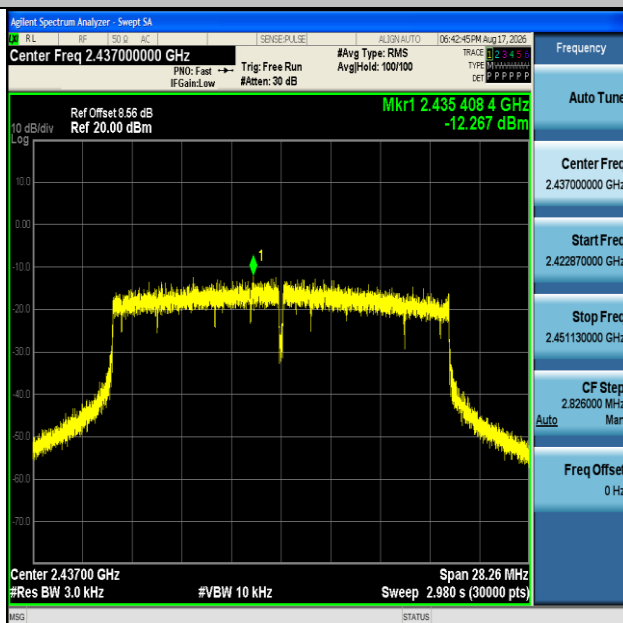


11N40SISO-Ant1-2452-PASS



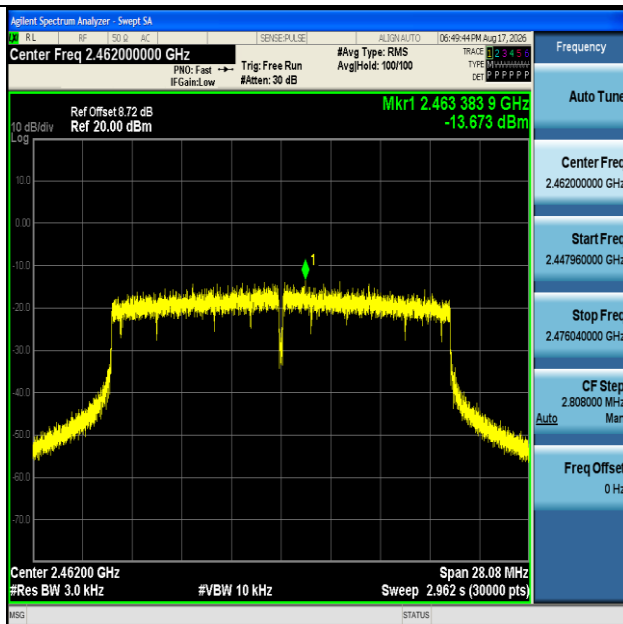


11AX20SISO-Ant1-2412-PASS

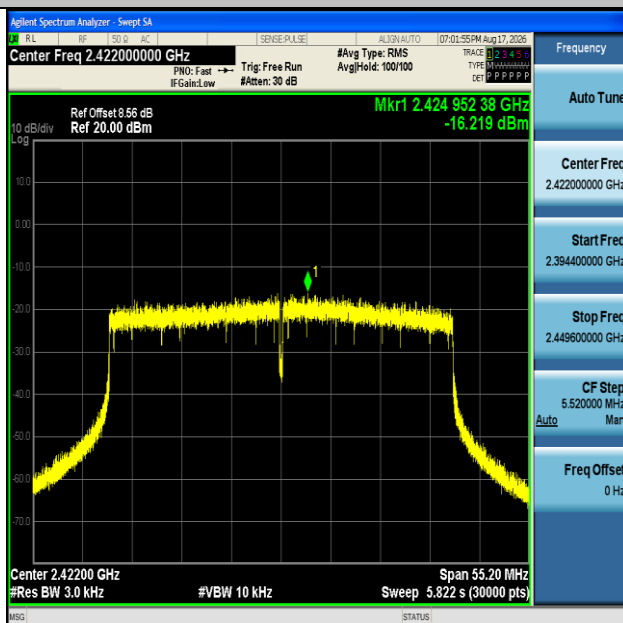


11AX20SISO-Ant1-2437-PASS



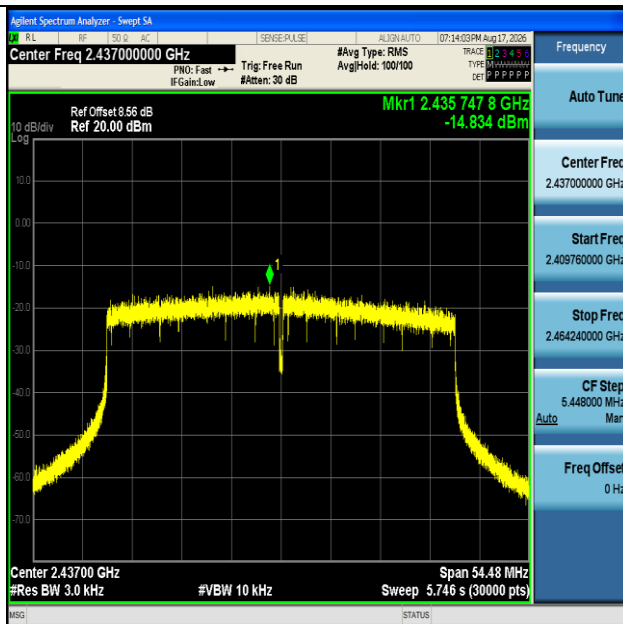


11AX20SISO-Ant1-2462-PASS



11AX40SISO-Ant1-2422-PASS





11AX40SISO-Ant1-2437-PASS





Appendix E: Band edge measurements

Test Result

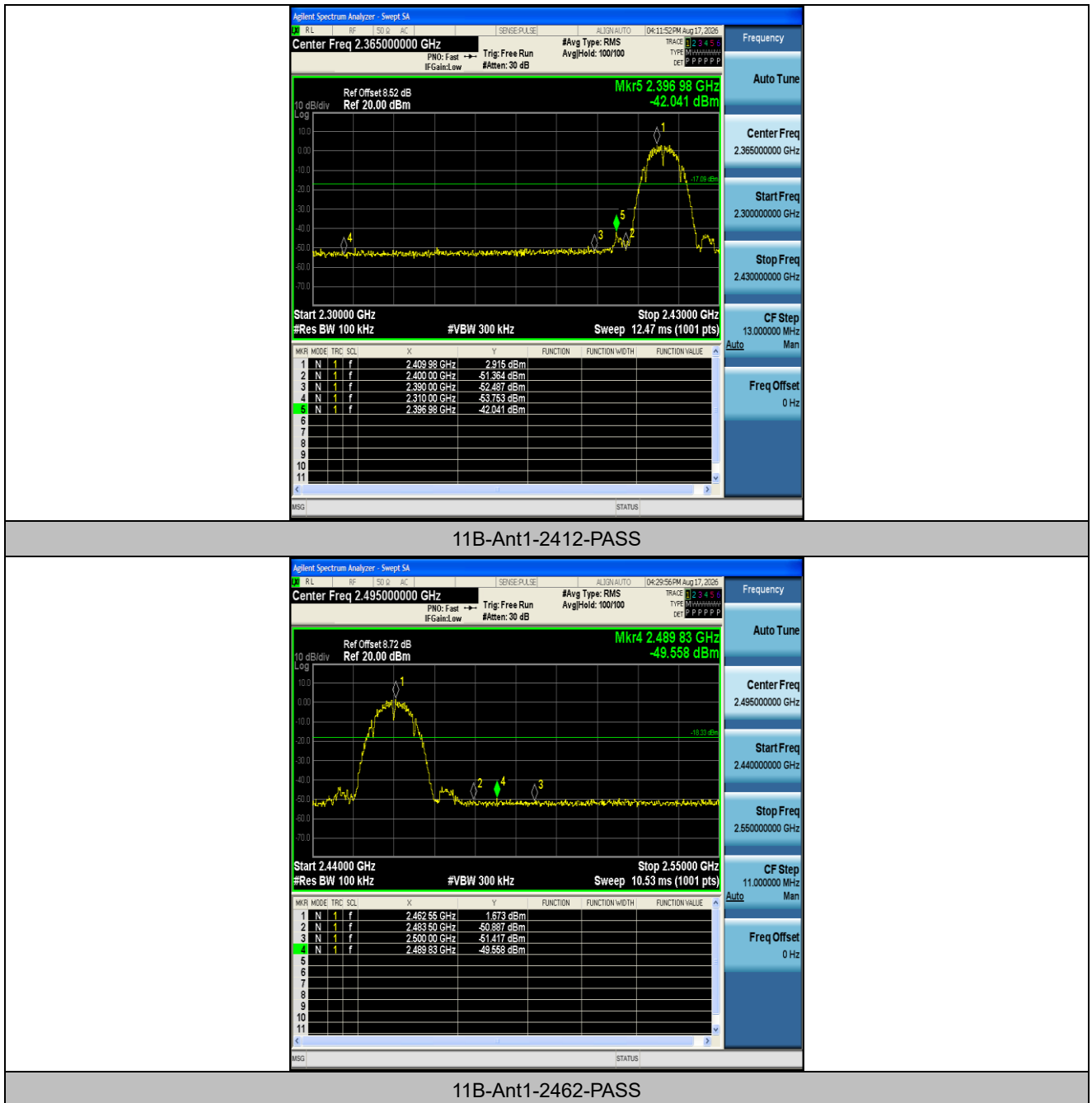
Test Mode	Antenna	Ch. Name	Frequency.[MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	2.92	-42.04	≤ -17.09	PASS
11B	Ant1	High	2462	1.67	-49.56	≤ -18.33	PASS
11G	Ant1	Low	2412	2.80	-26.02	≤ -17.2	PASS
11G	Ant1	High	2462	-0.47	-48.24	≤ -20.47	PASS
11N20SISO	Ant1	Low	2412	0.09	-28.16	≤ -19.91	PASS
11N20SISO	Ant1	High	2462	0.50	-46.58	≤ -19.5	PASS
11N40SISO	Ant1	Low	2422	-2.02	-34.34	≤ -22.02	PASS
11N40SISO	Ant1	High	2452	-1.56	-44.78	≤ -21.56	PASS
11AX20SISO	Ant1	Low	2412	1.01	-29	≤ -18.99	PASS
11AX20SISO	Ant1	High	2462	1.45	-46.82	≤ -18.55	PASS
11AX40SISO	Ant1	Low	2422	-1.12	-32.86	≤ -21.12	PASS

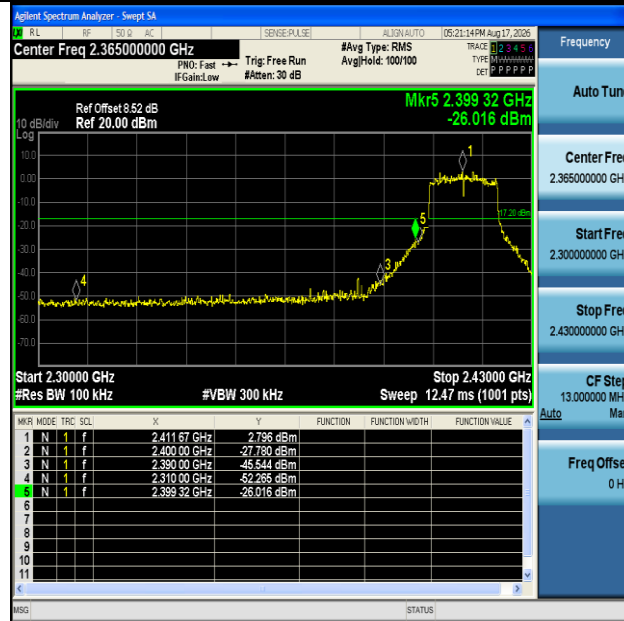
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



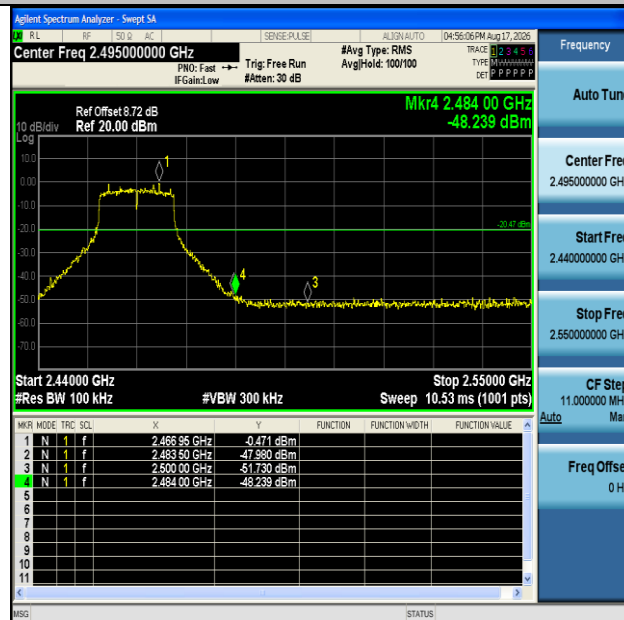


Test Graphs



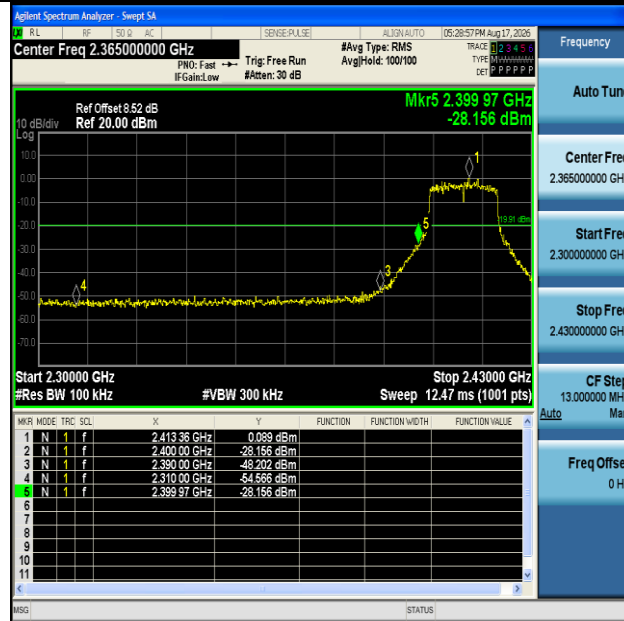


11G-Ant1-2412-PASS

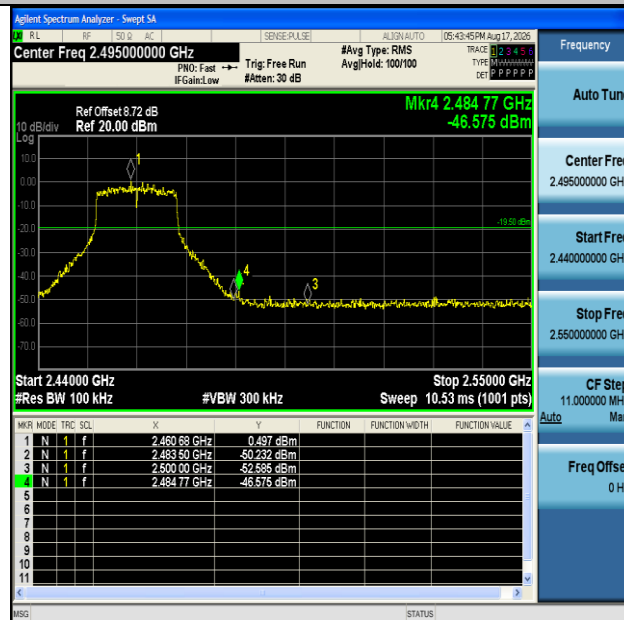


11G-Ant1-2462-PASS





11N20SISO-Ant1-2412-PASS

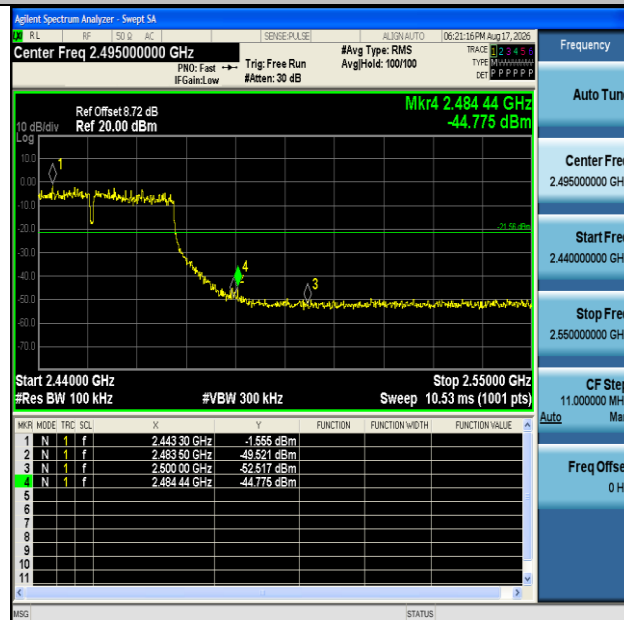


11N20SISO-Ant1-2462-PASS



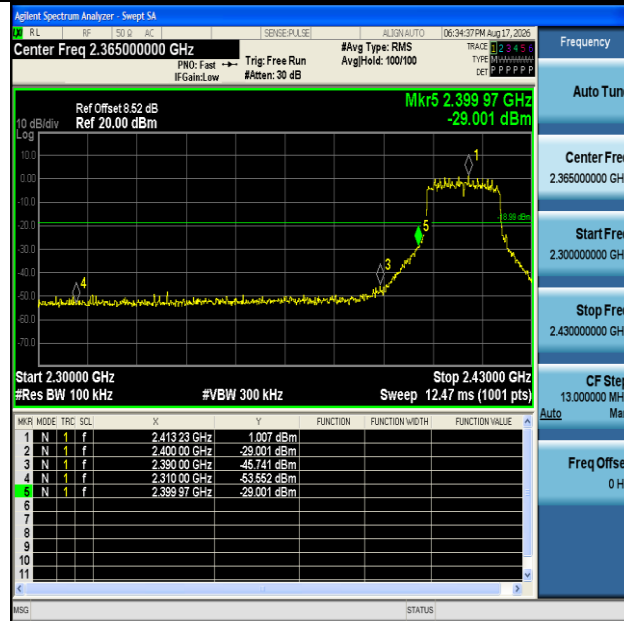


11N40SISO-Ant1-2422-PASS

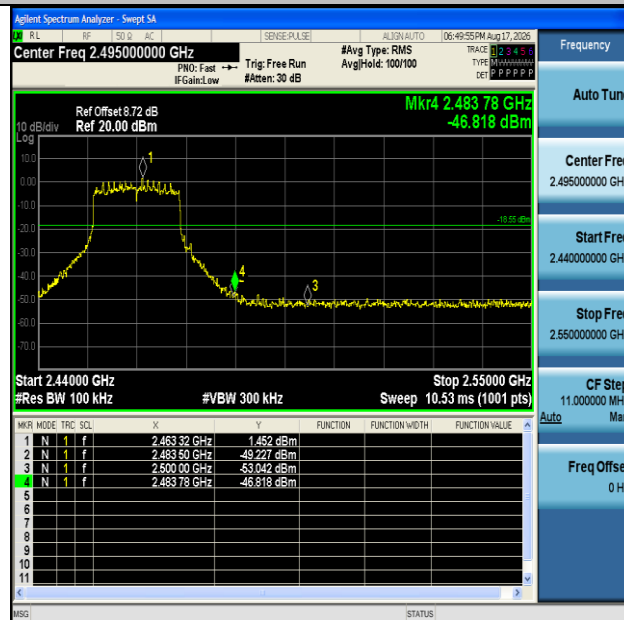


11N40SISO-Ant1-2452-PASS



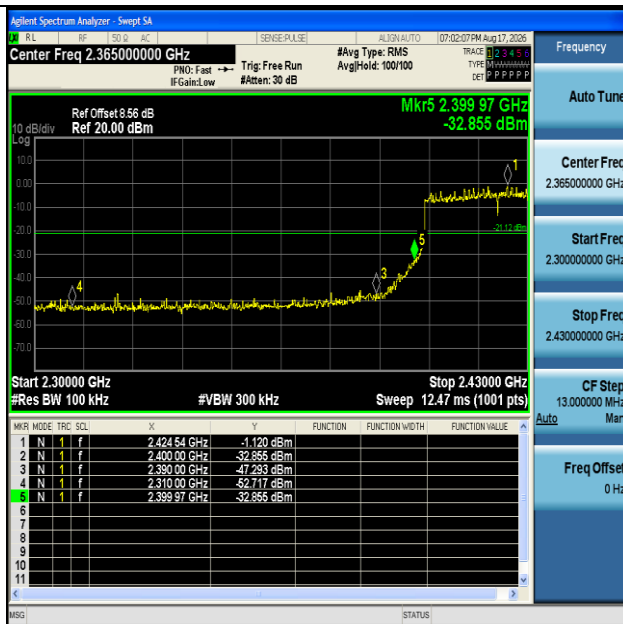


11AX20SISO-Ant1-2412-PASS



11AX20SISO-Ant1-2462-PASS





11AX40SiSO-Ant1-2422-PASS





Appendix F: Conducted Spurious Emission

Test Result

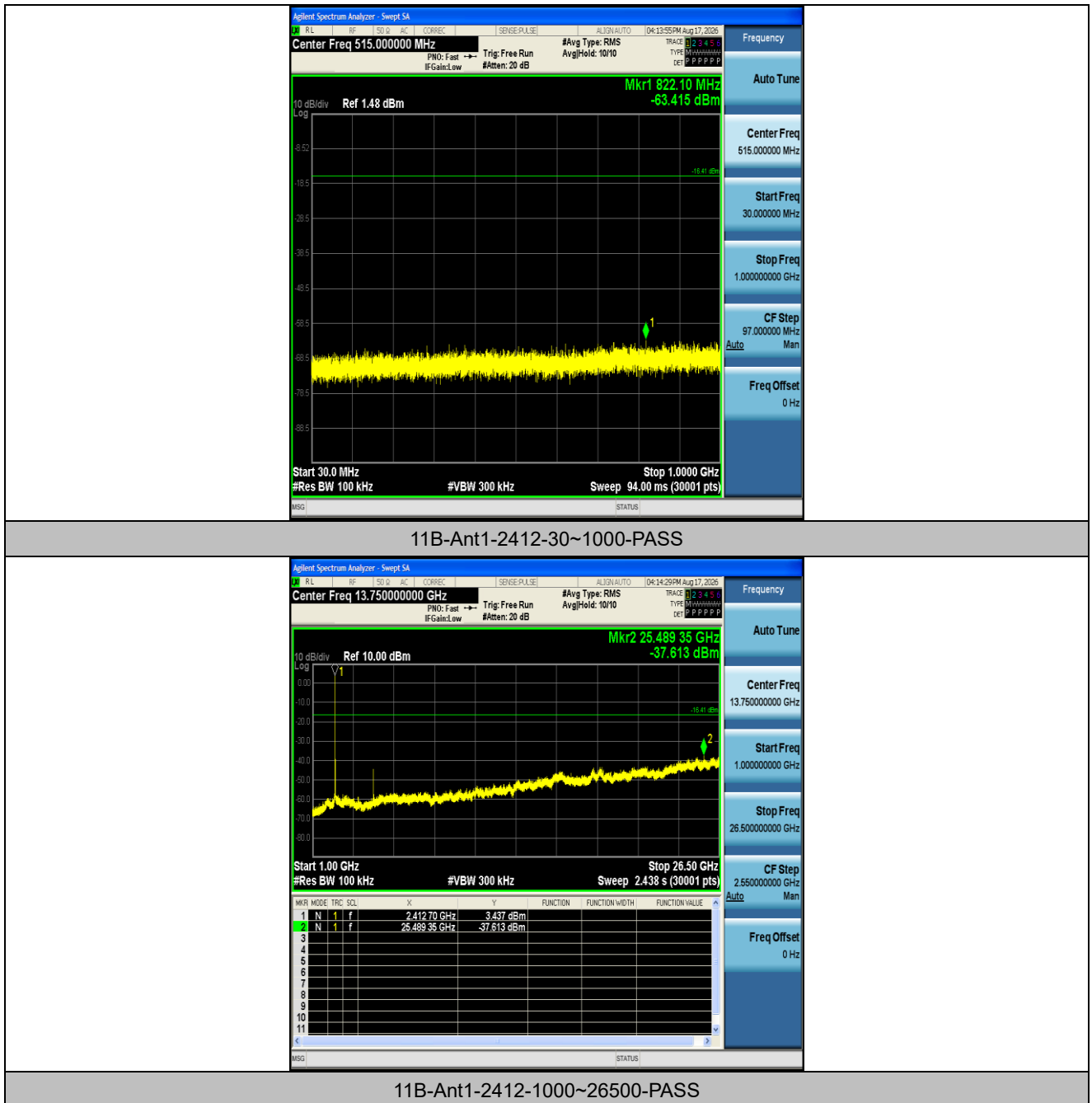
Test Mode	Antenna	Frequency [MHz]	Freq. Range [Mhz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	30~1000	3.59	-63.42	≤-16.41	PASS
11B	Ant1	2412	1000~26500	3.59	-37.61	≤-16.41	PASS
11B	Ant1	2437	30~1000	3.77	-60.77	≤-16.23	PASS
11B	Ant1	2437	1000~26500	3.77	-37.9	≤-16.23	PASS
11B	Ant1	2462	30~1000	1.16	-62.89	≤-18.84	PASS
11B	Ant1	2462	1000~26500	1.16	-37.41	≤-18.84	PASS
11G	Ant1	2412	30~1000	0.59	-62.48	≤-19.41	PASS
11G	Ant1	2412	1000~26500	0.59	-38.27	≤-19.41	PASS
11G	Ant1	2437	30~1000	2.05	-62.53	≤-17.95	PASS
11G	Ant1	2437	1000~26500	2.05	-37.45	≤-17.95	PASS
11G	Ant1	2462	30~1000	-0.71	-63.23	≤-20.71	PASS
11G	Ant1	2462	1000~26500	-0.71	-38.36	≤-20.71	PASS
11N20SISO	Ant1	2412	30~1000	0.31	-62.96	≤-19.69	PASS
11N20SISO	Ant1	2412	1000~26500	0.31	-37.96	≤-19.69	PASS
11N20SISO	Ant1	2437	30~1000	2.32	-62.72	≤-17.68	PASS
11N20SISO	Ant1	2437	1000~26500	2.32	-37.65	≤-17.68	PASS
11N20SISO	Ant1	2462	30~1000	-0.11	-62.58	≤-20.11	PASS
11N20SISO	Ant1	2462	1000~26500	-0.11	-37.98	≤-20.11	PASS
11N40SISO	Ant1	2422	30~1000	-2.66	-63.84	≤-22.66	PASS
11N40SISO	Ant1	2422	1000~26500	-2.66	-38.11	≤-22.66	PASS
11N40SISO	Ant1	2437	30~1000	-1.24	-62.68	≤-21.24	PASS
11N40SISO	Ant1	2437	1000~26500	-1.24	-38.01	≤-21.24	PASS
11N40SISO	Ant1	2452	30~1000	-1.40	-63.2	≤-21.4	PASS
11N40SISO	Ant1	2452	1000~26500	-1.40	-37.86	≤-21.4	PASS
11AX20SISO	Ant1	2412	30~1000	1.52	-63.58	≤-18.48	PASS
11AX20SISO	Ant1	2412	1000~26500	1.52	-37.97	≤-18.48	PASS
11AX20SISO	Ant1	2437	30~1000	2.89	-61.59	≤-17.11	PASS
11AX20SISO	Ant1	2437	1000~26500	2.89	-38.56	≤-17.11	PASS
11AX20SISO	Ant1	2462	30~1000	1.11	-63.74	≤-18.89	PASS
11AX20SISO	Ant1	2462	1000~26500	1.11	-38.09	≤-18.89	PASS
11AX40SISO	Ant1	2422	30~1000	-1.18	-63.53	≤-21.18	PASS
11AX40SISO	Ant1	2422	1000~26500	-1.18	-37.75	≤-21.18	PASS
11AX40SISO	Ant1	2437	30~1000	-0.49	-62.55	≤-20.49	PASS
11AX40SISO	Ant1	2437	1000~26500	-0.49	-37.44	≤-20.49	PASS

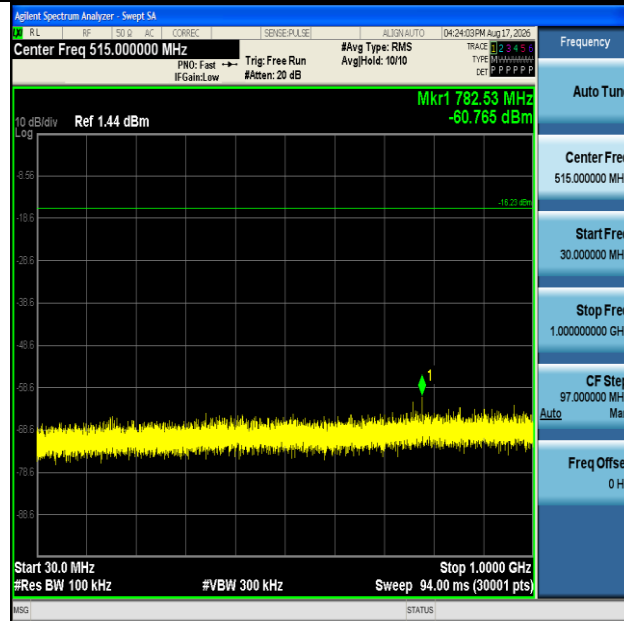
Note: offset(dB) in Reference test plots = cable loss(dB) + attenuator factor(dB); For spurious emissions plots from 30MHz to 26.5GHz, the cable loss and attenuator factors have been set in the 'Input Correction' of the Spectrum Analyzer during the test.



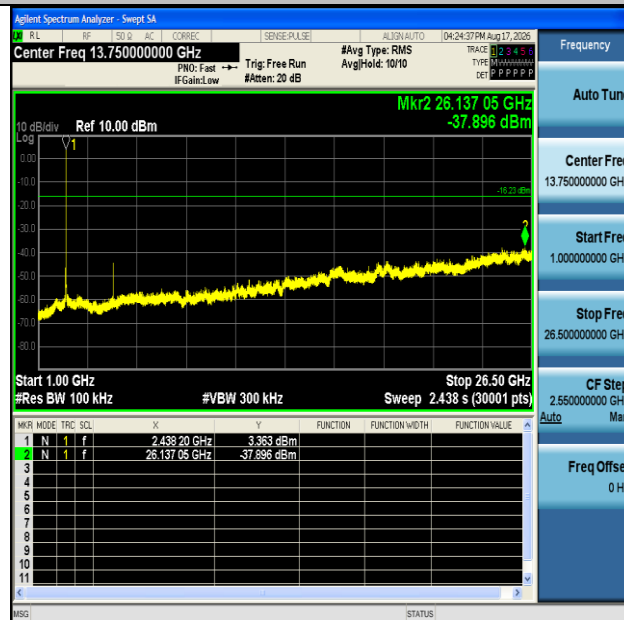


Test Graphs



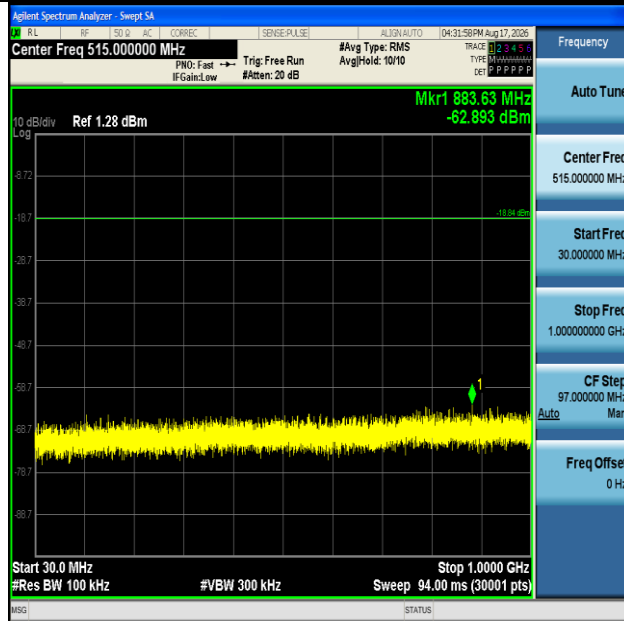


11B-Ant1-2437-30~1000-PASS

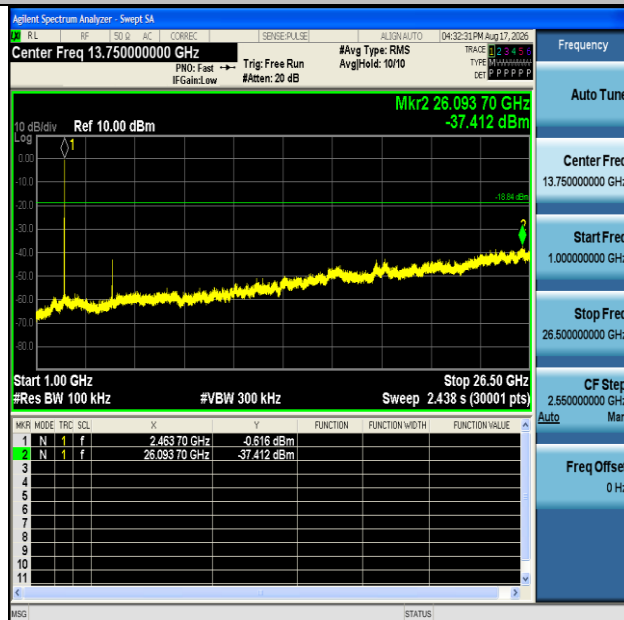


11B-Ant1-2437-1000~26500-PASS



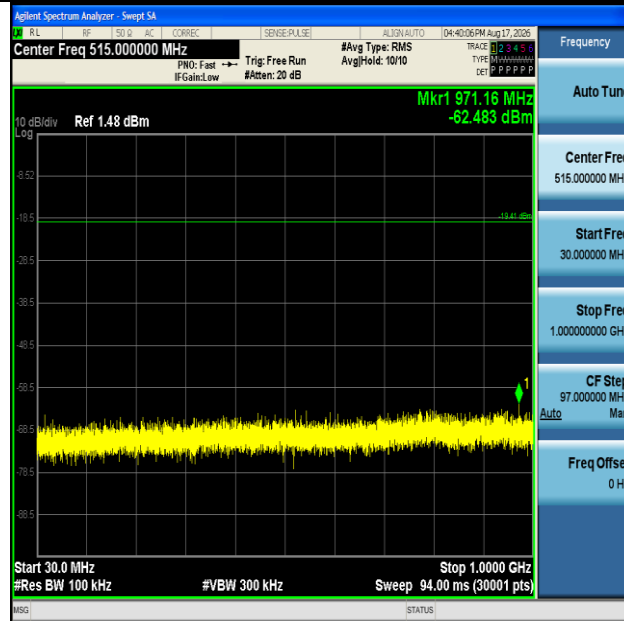


11B-Ant1-2462-30~1000-PASS

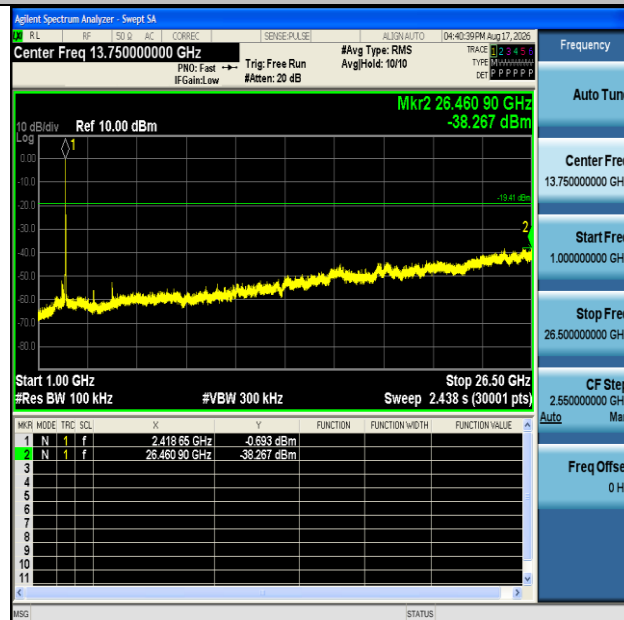


11B-Ant1-2462-1000~26500-PASS



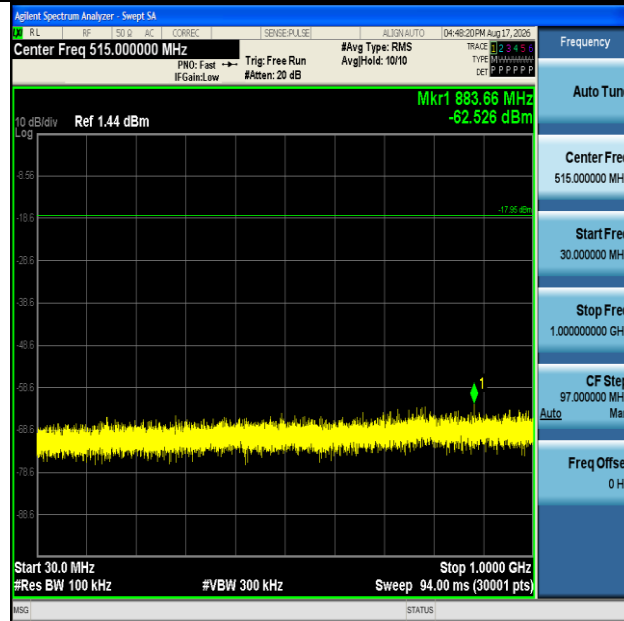


11G-Ant1-2412-30~1000-PASS

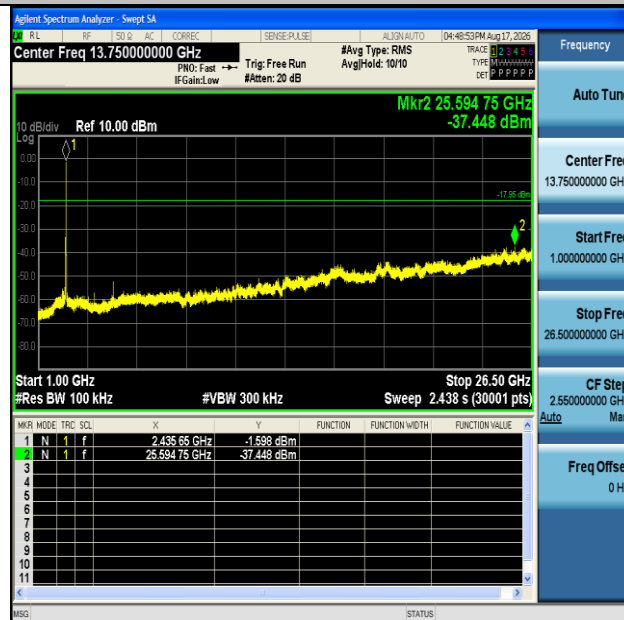


11G-Ant1-2412-1000~26500-PASS



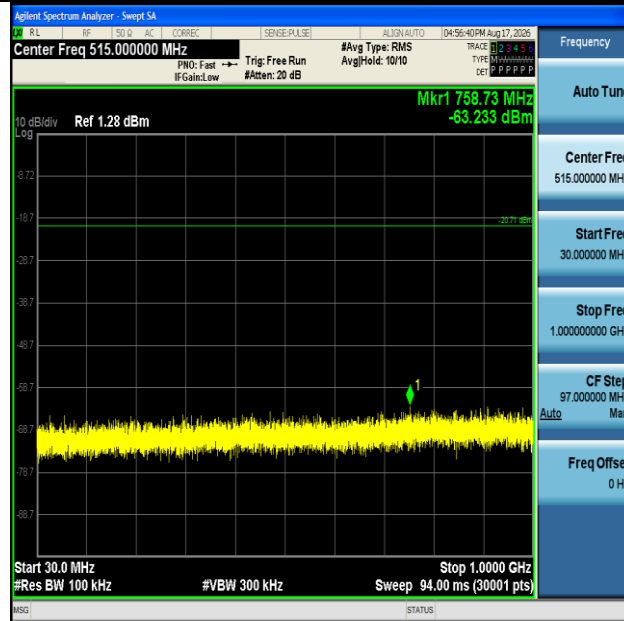


11G-Ant1-2437-30~1000-PASS

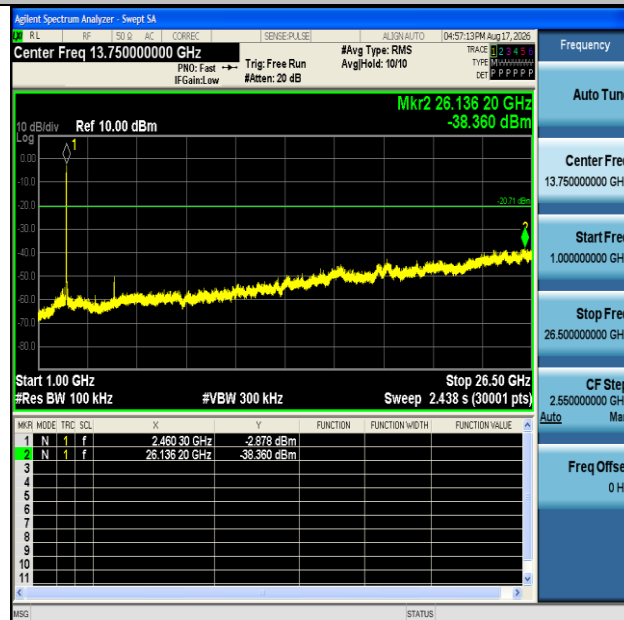


11G-Ant1-2437-1000~26500-PASS



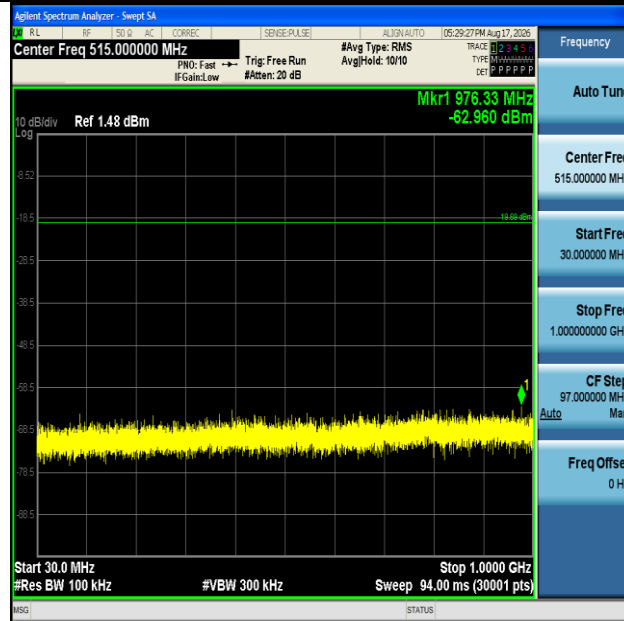


11G-Ant1-2462-30~1000-PASS

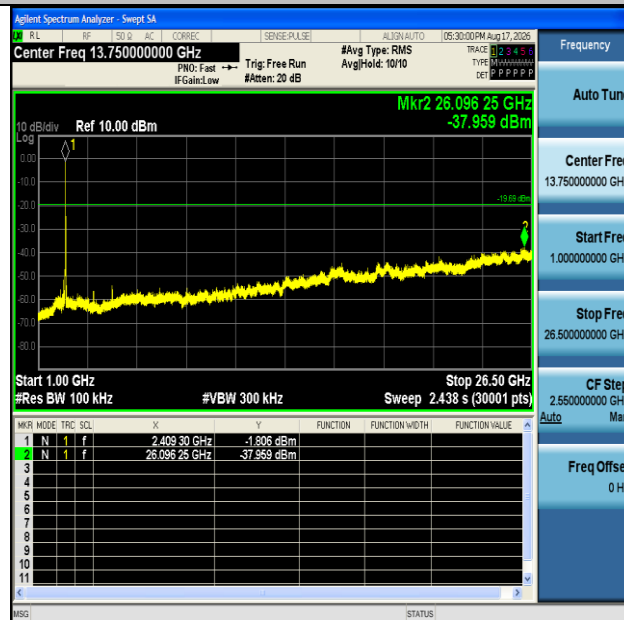


11G-Ant1-2462-1000~26500-PASS



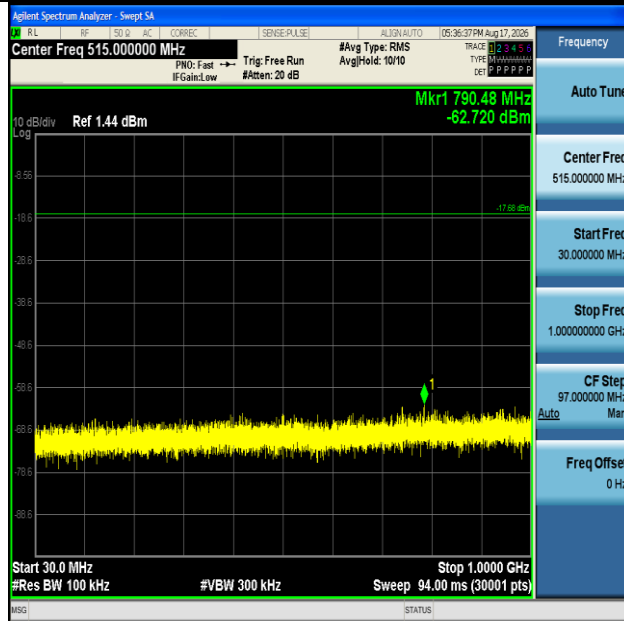


11N20SISO-Ant1-2412-30~1000-PASS

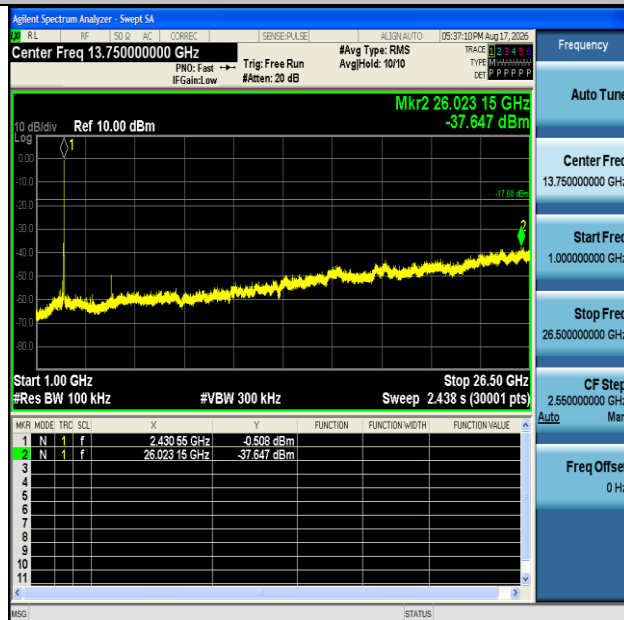


11N20SISO-Ant1-2412-1000~26500-PASS



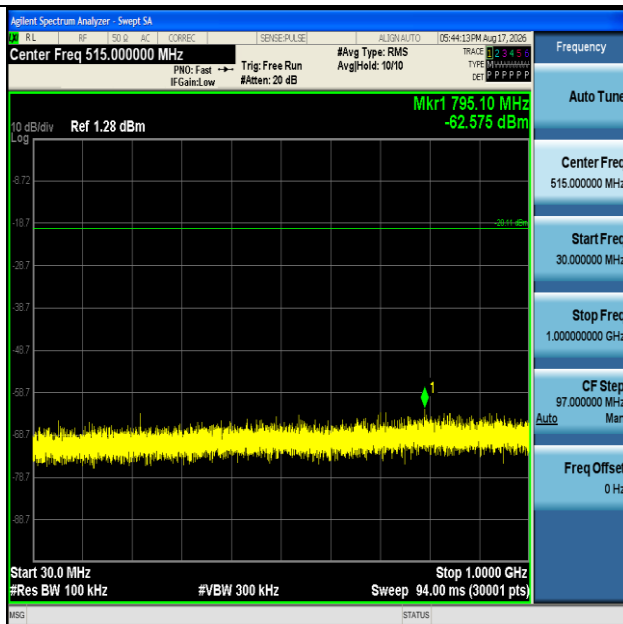


11N20SISO-Ant1-2437-30~1000-PASS

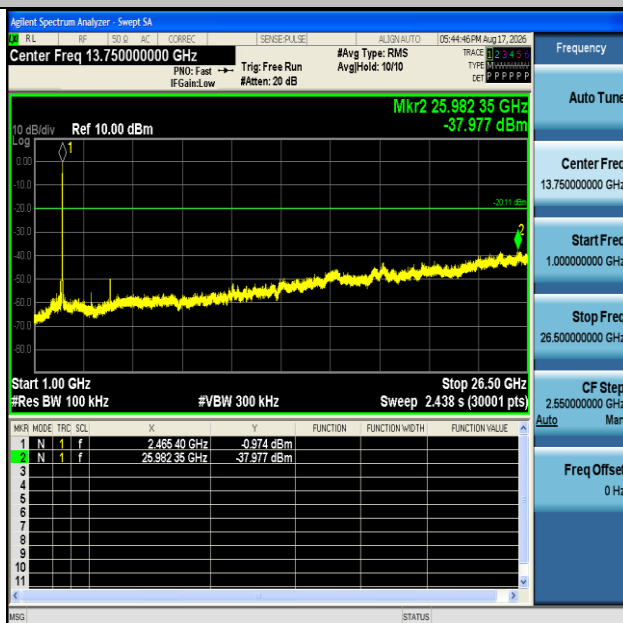


11N20SISO-Ant1-2437-1000~26500-PASS



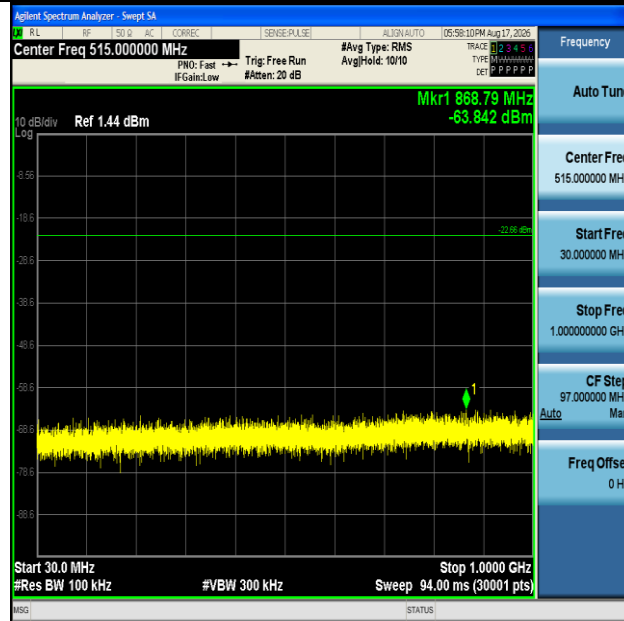


11N20SISO-Ant1-2462-30~1000-PASS

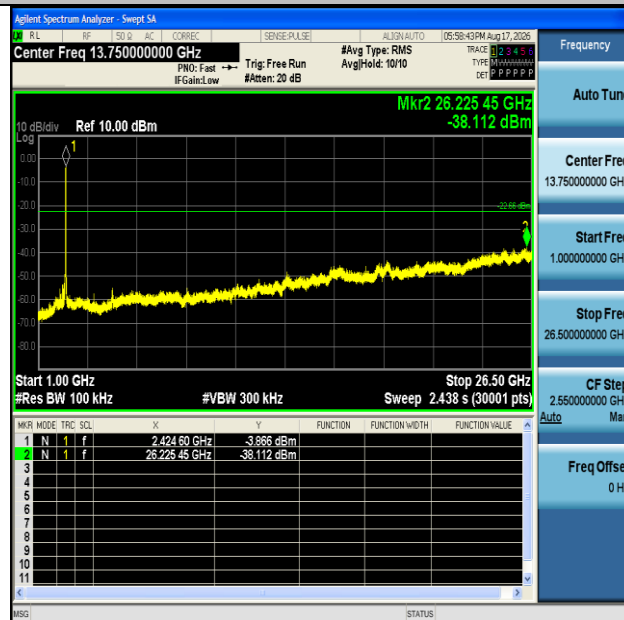


11N20SISO-Ant1-2462-1000~26500-PASS



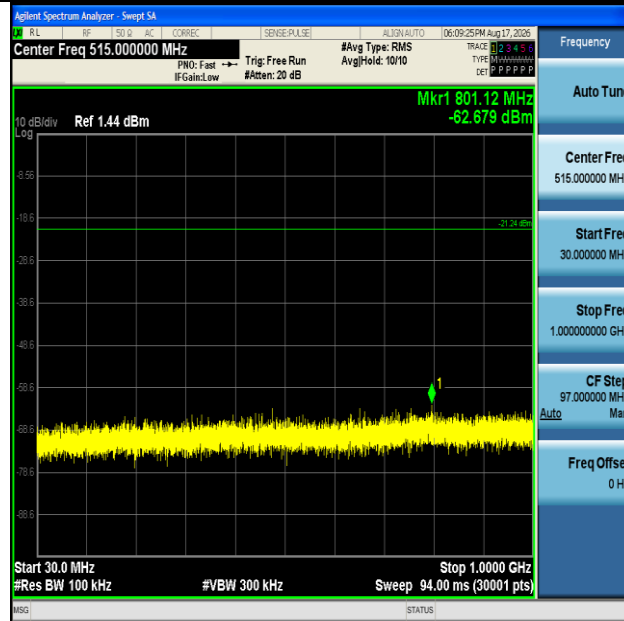


11N40SISO-Ant1-2422-30~1000-PASS

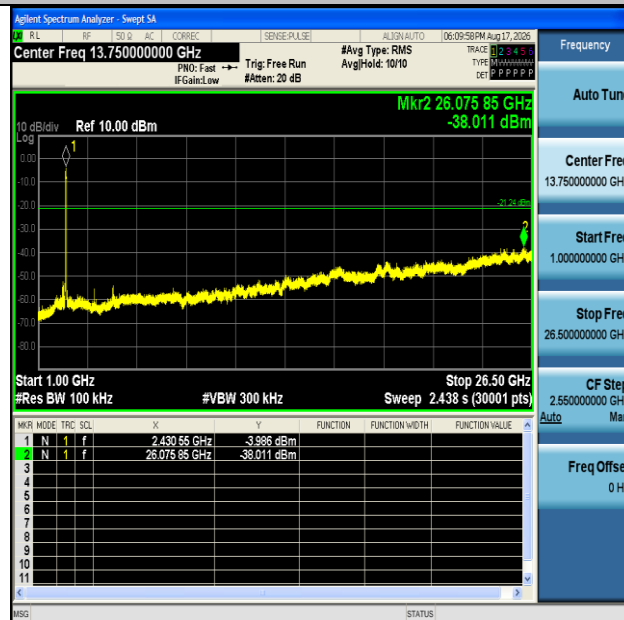


11N40SISO-Ant1-2422-1000~26500-PASS



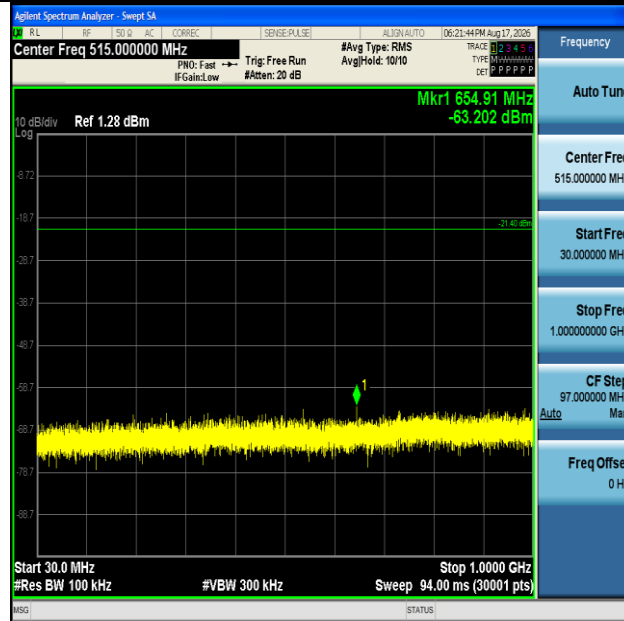


11N40SISO-Ant1-2437-30~1000-PASS

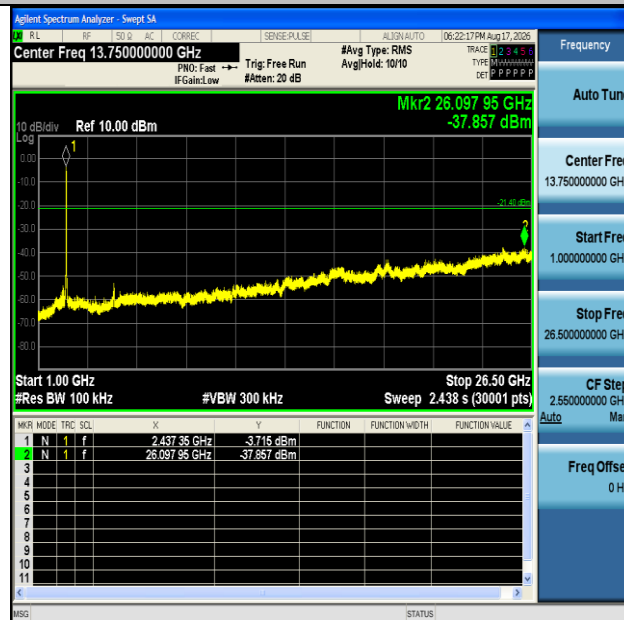


11N40SISO-Ant1-2437-1000~26500-PASS





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



11N40SISO-Ant1-2452-1000~26500-PASS

