



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

Product Name: Remote Control Dinosaur

Trade Mark: /

Test Model: D918

FCC ID: 2BOLYLWKL58

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	12.120	2406.000	2418.120	0.5	PASS
11B	Ant1	2437	11.120	2431.000	2442.120	0.5	PASS
11B	Ant1	2462	11.160	2456.960	2468.120	0.5	PASS
11G	Ant1	2412	16.360	2403.880	2420.240	0.5	PASS
11G	Ant1	2437	16.440	2428.840	2445.280	0.5	PASS
11G	Ant1	2462	16.400	2453.840	2470.240	0.5	PASS
11N20SISO	Ant1	2412	17.640	2403.240	2420.880	0.5	PASS
11N20SISO	Ant1	2437	17.640	2428.200	2445.840	0.5	PASS
11N20SISO	Ant1	2462	17.640	2453.240	2470.880	0.5	PASS

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





Test Graphs







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

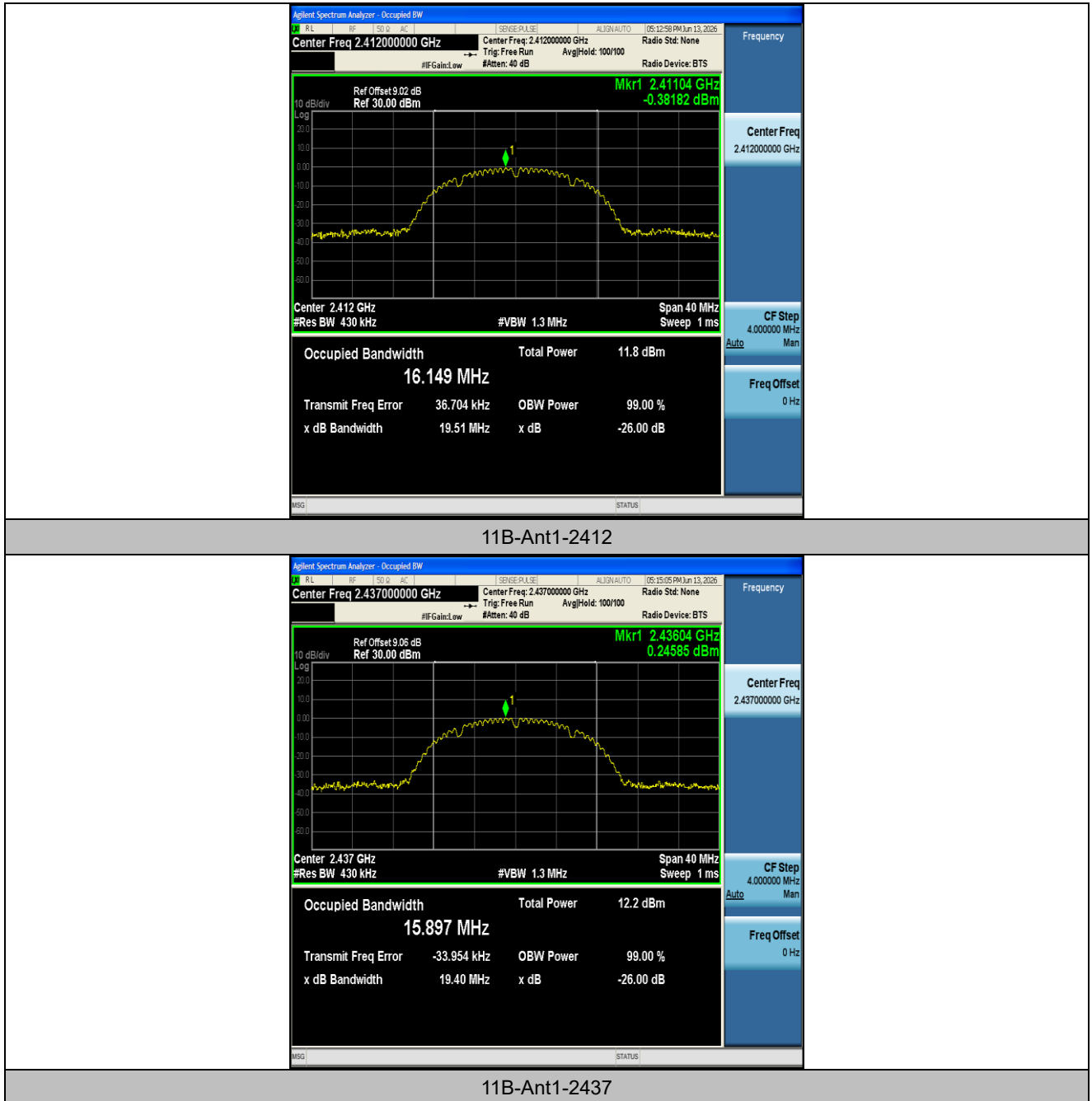
Test Mode	Antenna	Channel Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11B	Ant1	2412	16.149	2403.9622	2420.1112	---	---
11B	Ant1	2437	15.897	2429.0176	2444.9146	---	---
11B	Ant1	2462	16.042	2454.0809	2470.1229	---	---
11G	Ant1	2412	17.301	2403.3992	2420.7002	---	---
11G	Ant1	2437	17.103	2428.4704	2445.5734	---	---
11G	Ant1	2462	17.330	2453.4759	2470.8059	---	---
11N20SISO	Ant1	2412	18.183	2402.9921	2421.1751	---	---
11N20SISO	Ant1	2437	17.989	2428.0279	2446.0169	---	---
11N20SISO	Ant1	2462	18.083	2453.0095	2471.0925	---	---

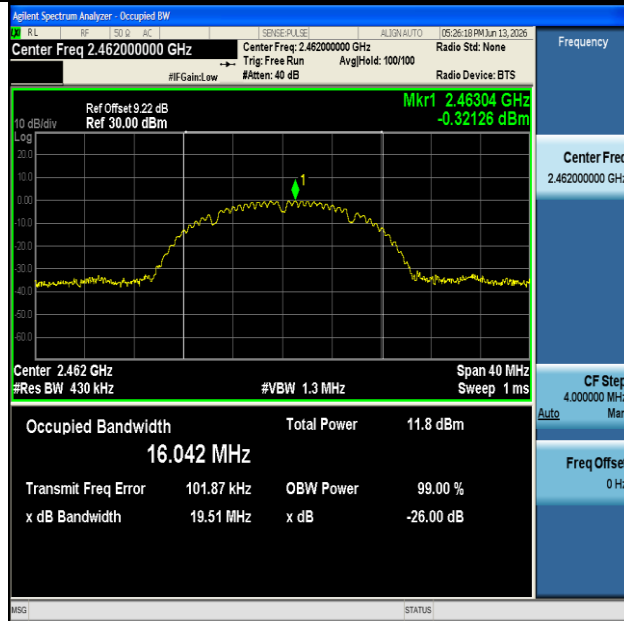
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



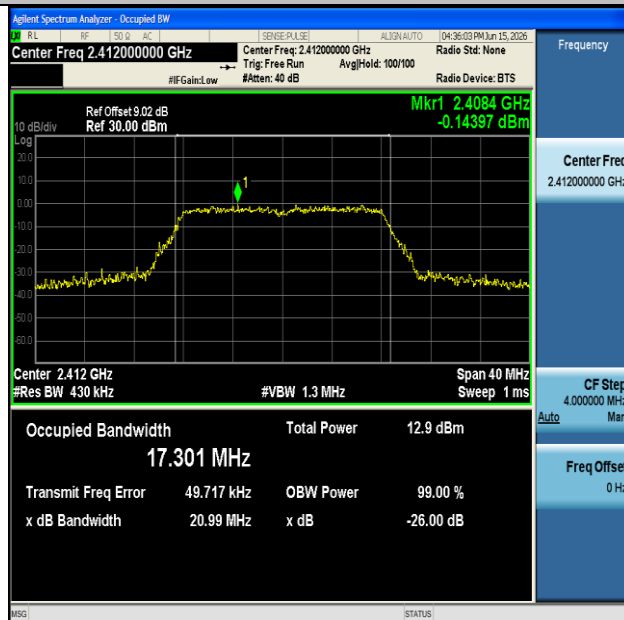


Test Graphs



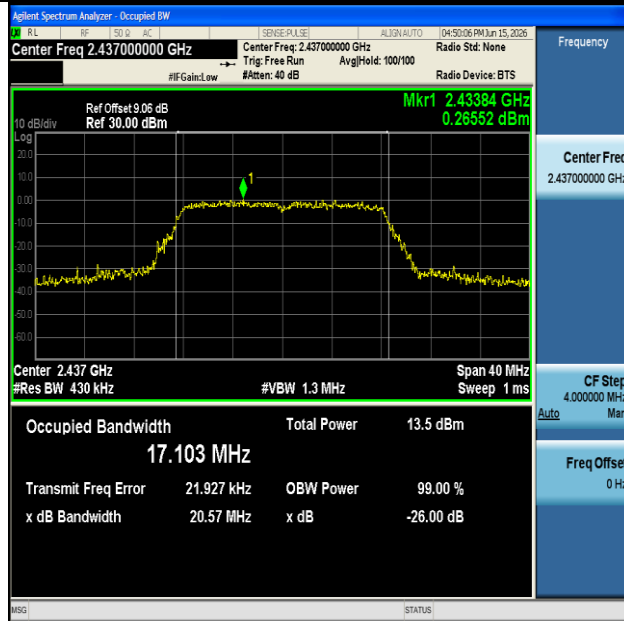


11B-Ant1-2462

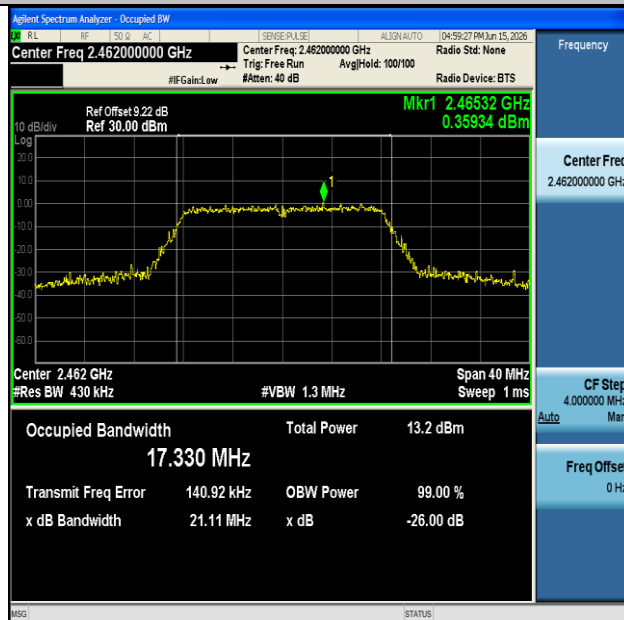


11G-Ant1-2412





11G-Ant1-2437

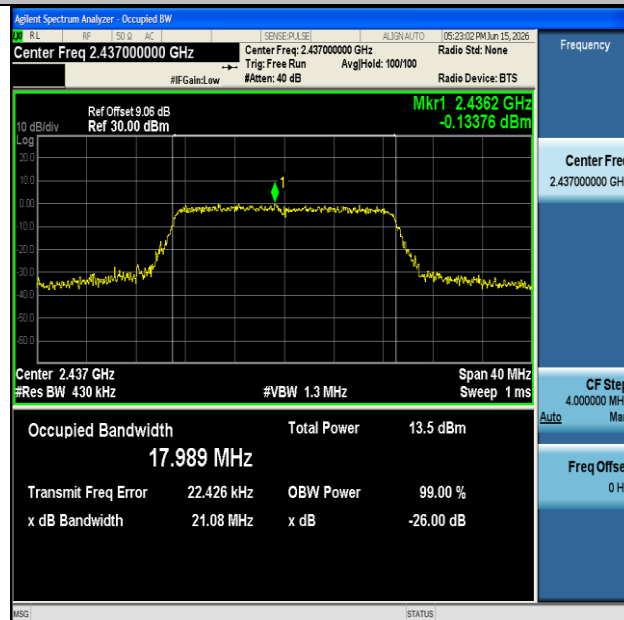


11G-Ant1-2462



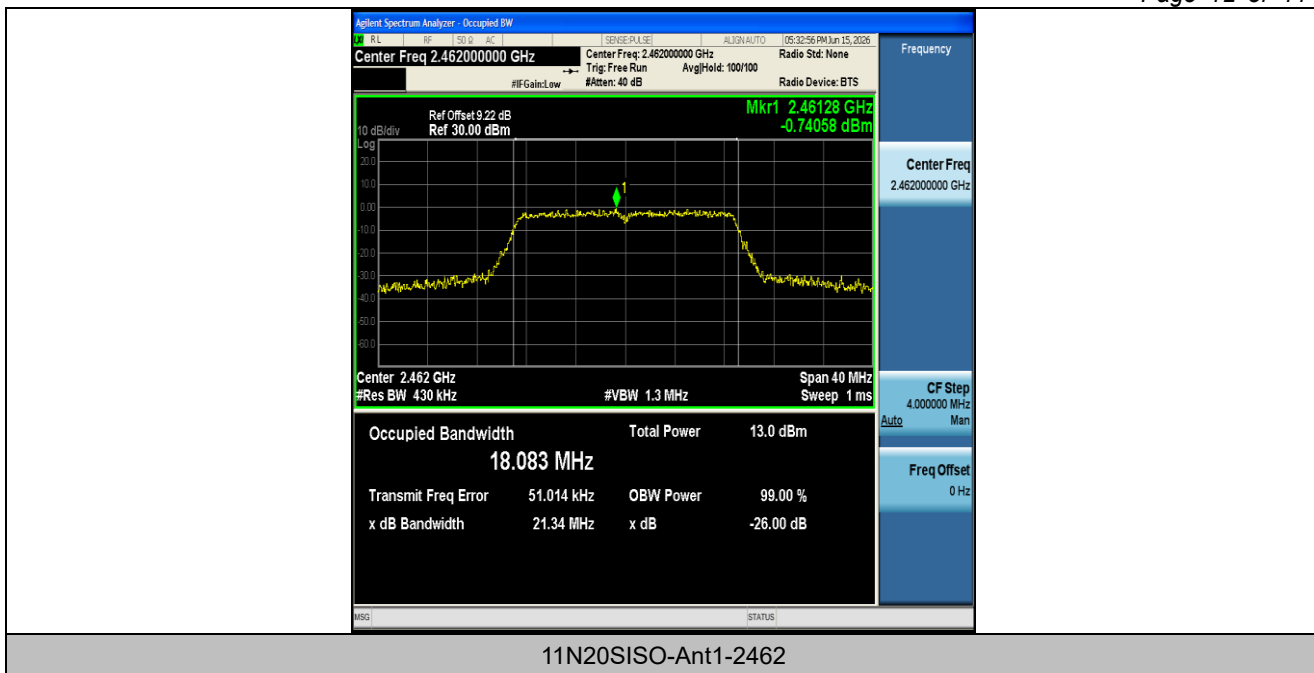


11N20SISO-Ant1-2412



11N20SISO-Ant1-2437







Appendix C: Maximum Average conducted output power

Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Power [dBm]	Conducted Limit [dBm]	Verdict
11B	Ant1	2412	8.08	≤30.00	PASS
11B	Ant1	2437	8.97	≤30.00	PASS
11B	Ant1	2462	8.89	≤30.00	PASS
11G	Ant1	2412	7.50	≤30.00	PASS
11G	Ant1	2437	7.36	≤30.00	PASS
11G	Ant1	2462	6.82	≤30.00	PASS
11N20SISO	Ant1	2412	8.03	≤30.00	PASS
11N20SISO	Ant1	2437	9.02	≤30.00	PASS
11N20SISO	Ant1	2462	7.32	≤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

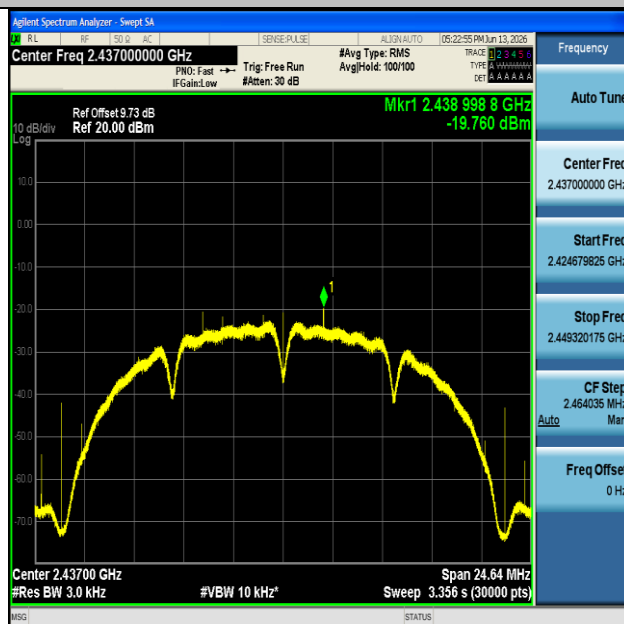
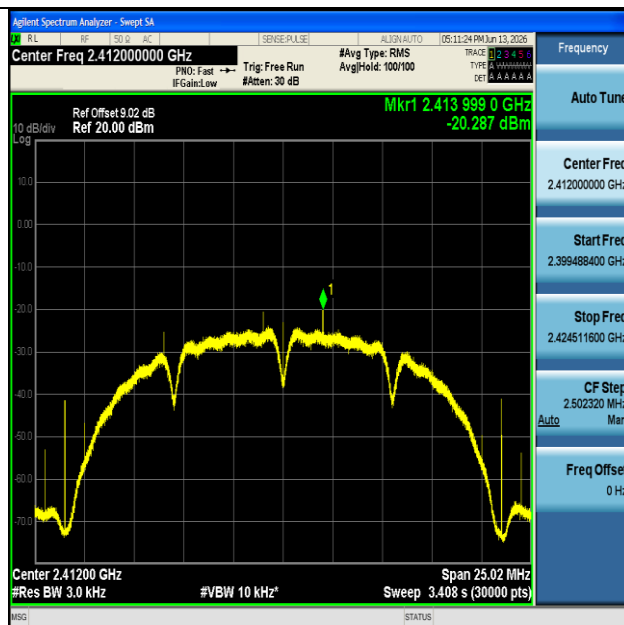
Test Mode	Antenna	Frequency [MHz]	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11B	Ant1	2412	-20.29	≤8.00	PASS
11B	Ant1	2437	-19.76	≤8.00	PASS
11B	Ant1	2462	-19.91	≤8.00	PASS
11G	Ant1	2412	-26.55	≤8.00	PASS
11G	Ant1	2437	-25.62	≤8.00	PASS
11G	Ant1	2462	-25.56	≤8.00	PASS
11N20SISO	Ant1	2412	-26.51	≤8.00	PASS
11N20SISO	Ant1	2437	-26.08	≤8.00	PASS
11N20SISO	Ant1	2462	-26.16	≤8.00	PASS

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



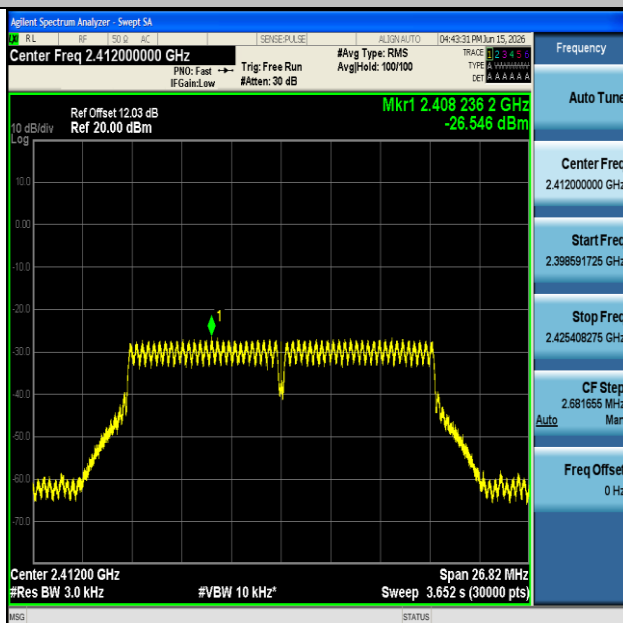


Test Graphs



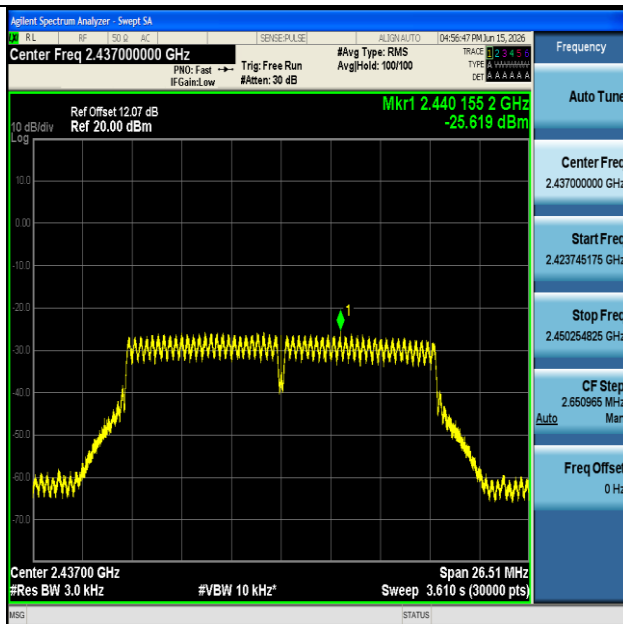


11B-Ant1-2462-PASS

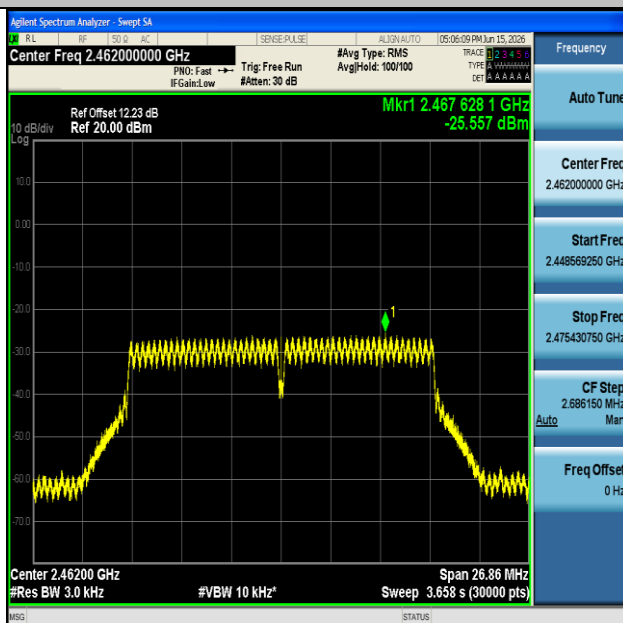


11G-Ant1-2412-PASS



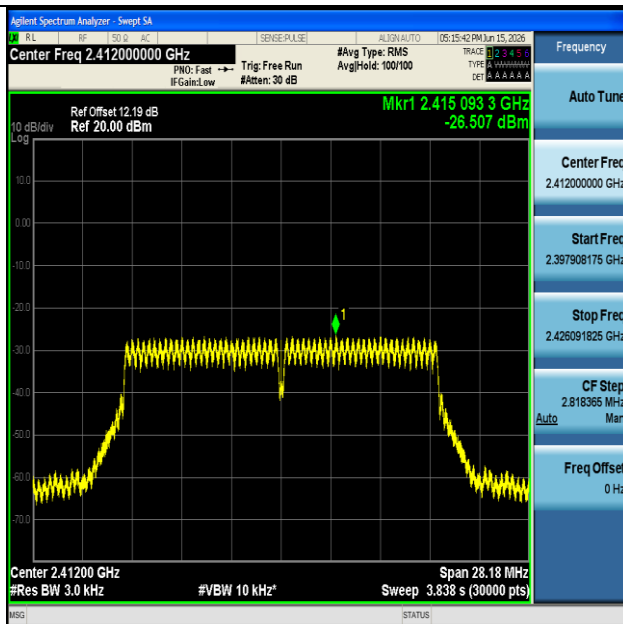


11G-Ant1-2437-PASS

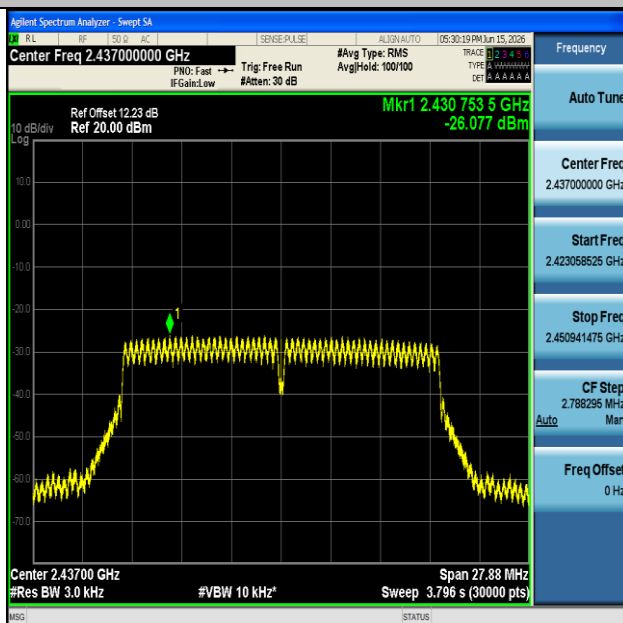


11G-Ant1-2462-PASS



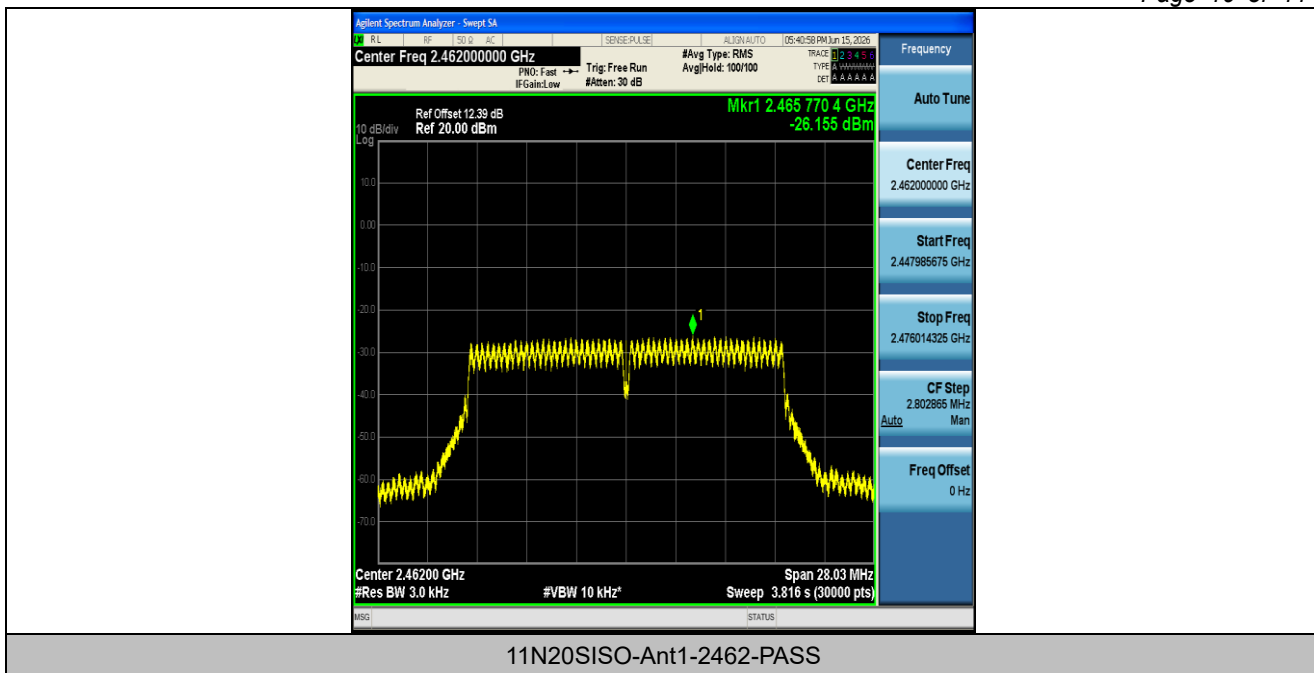


11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2437-PASS







Appendix E: Band edge measurements

Test Result

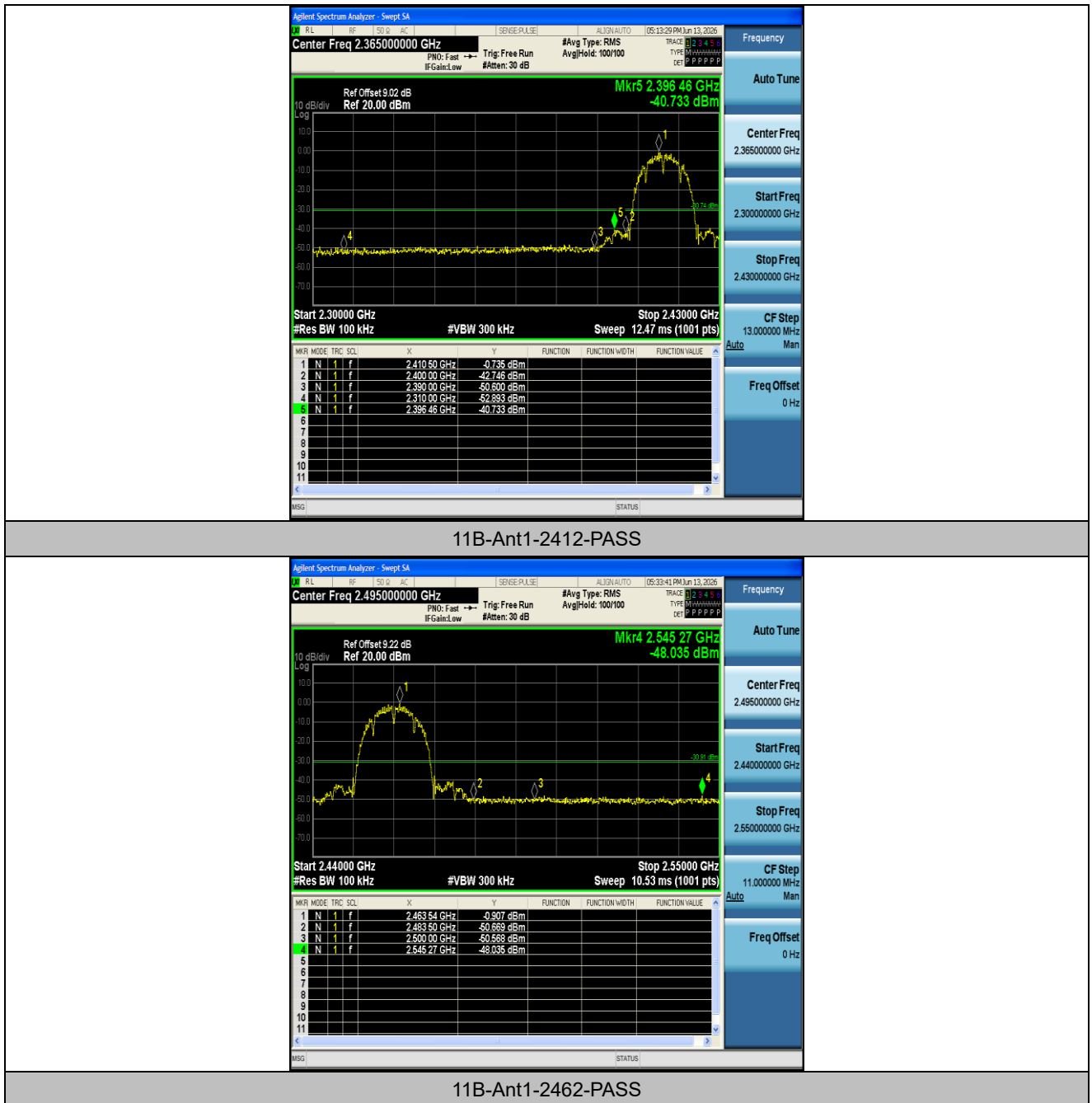
Test Mode	Antenna	Ch. Name	Frequency.[MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	Low	2412	-0.74	-40.73	≤-30.74	PASS
11B	Ant1	High	2462	-0.91	-48.04	≤-30.91	PASS
11G	Ant1	Low	2412	-4.28	-36.76	≤-34.28	PASS
11G	Ant1	High	2462	-4.10	-46.67	≤-34.1	PASS
11N20SISO	Ant1	Low	2412	-4.02	-36.16	≤-34.02	PASS
11N20SISO	Ant1	High	2462	-4.00	-44.32	≤-34	PASS

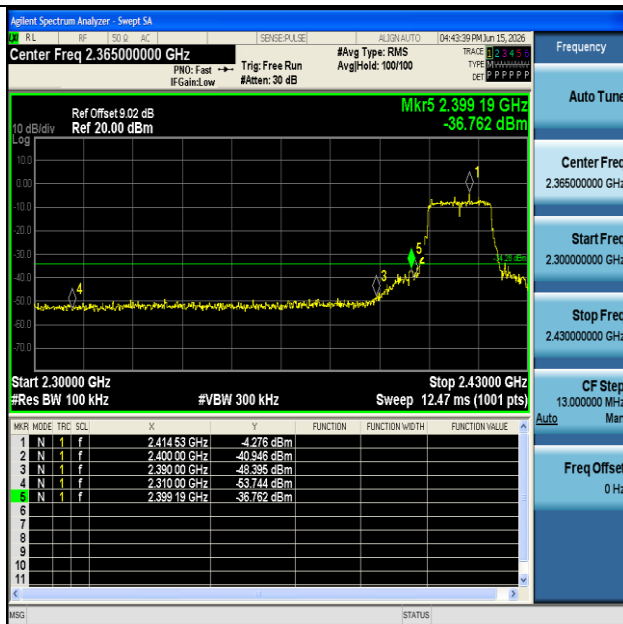
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



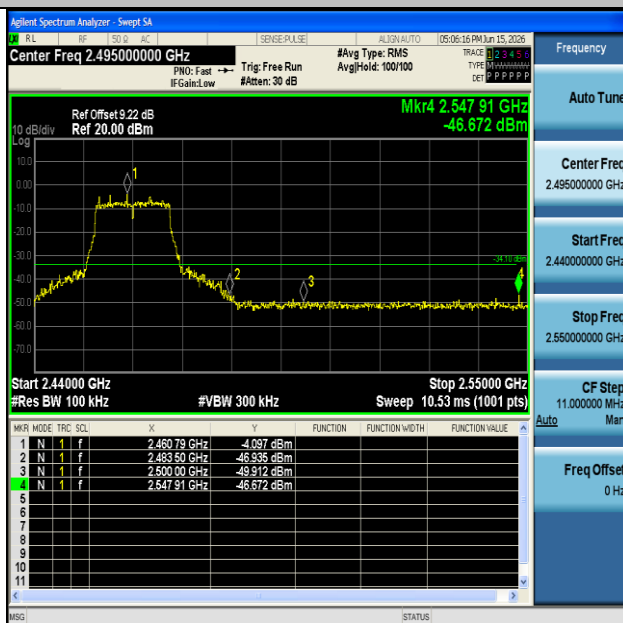


Test Graphs



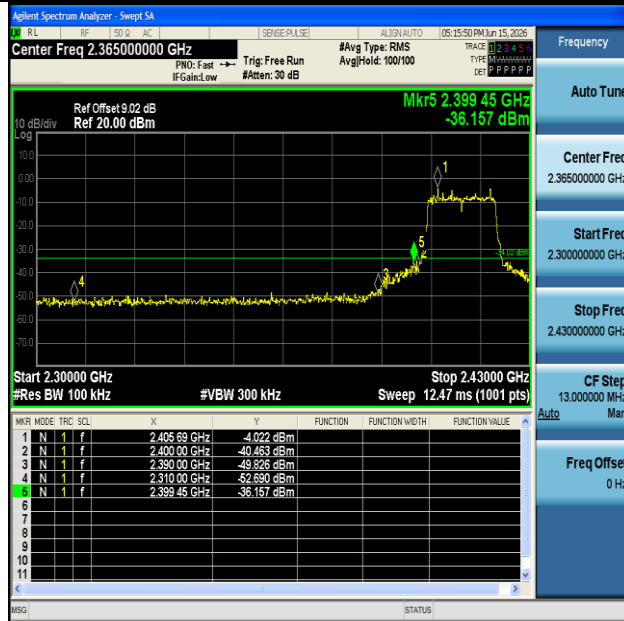


11G-Ant1-2412-PASS

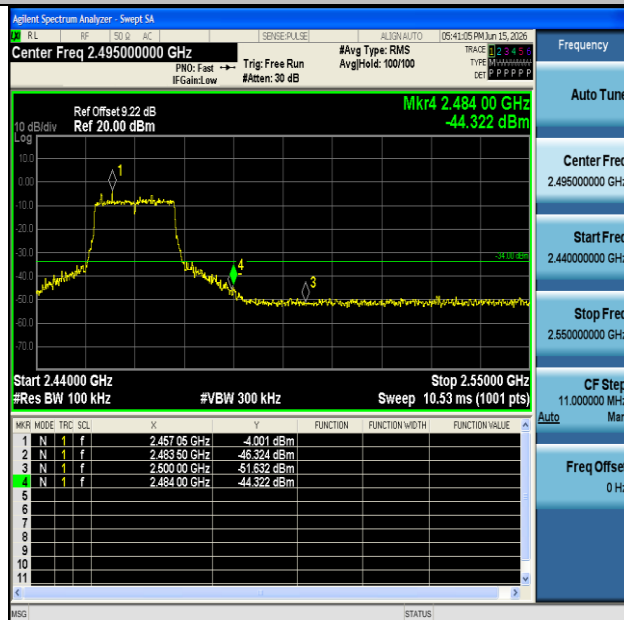


11G-Ant1-2462-PASS





11N20SISO-Ant1-2412-PASS



11N20SISO-Ant1-2462-PASS





Appendix F: Conducted Spurious Emission

Test Result

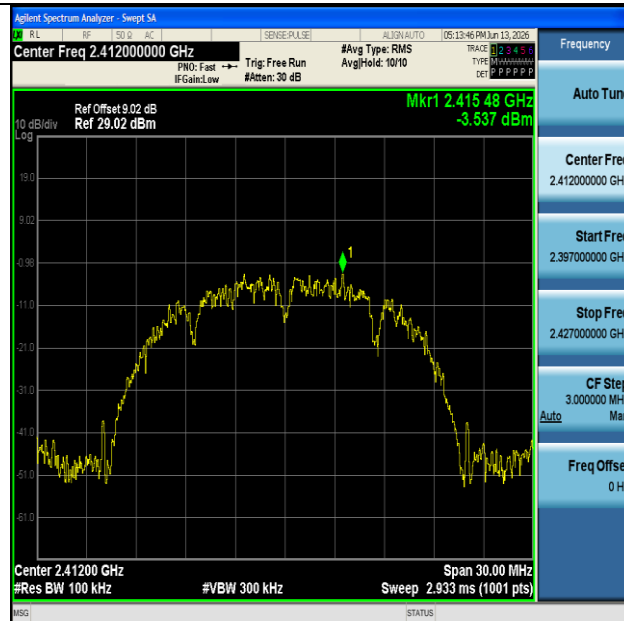
Test Mode	Antenna	Frequency [MHz]	Freq. Range [Mhz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	0~Reference	-3.54	-3.54	---	PASS
11B	Ant1	2412	30~1000	-3.54	-61.17	≤ -33.54	PASS
11B	Ant1	2412	1000~26500	-3.54	-37.65	≤ -33.54	PASS
11B	Ant1	2437	0~Reference	-1.16	-1.16	---	PASS
11B	Ant1	2437	30~1000	-1.16	-59	≤ -31.16	PASS
11B	Ant1	2437	1000~26500	-1.16	-37.14	≤ -31.16	PASS
11B	Ant1	2462	0~Reference	-1.59	-1.59	---	PASS
11B	Ant1	2462	30~1000	-1.59	-61.5	≤ -31.59	PASS
11B	Ant1	2462	1000~26500	-1.59	-37.69	≤ -31.59	PASS
11G	Ant1	2412	0~Reference	-4.88	-4.88	---	PASS
11G	Ant1	2412	30~1000	-4.88	-60.7	≤ -34.88	PASS
11G	Ant1	2412	1000~26500	-4.88	-47.68	≤ -34.88	PASS
11G	Ant1	2437	0~Reference	-4.19	-4.19	---	PASS
11G	Ant1	2437	30~1000	-4.19	-56.84	≤ -34.19	PASS
11G	Ant1	2437	1000~26500	-4.19	-47.2	≤ -34.19	PASS
11G	Ant1	2462	0~Reference	-7.60	-7.60	---	PASS
11G	Ant1	2462	30~1000	-7.60	-58.77	≤ -37.6	PASS
11G	Ant1	2462	1000~26500	-7.60	-47.36	≤ -37.6	PASS
11N20SISO	Ant1	2412	0~Reference	-4.30	-4.30	---	PASS
11N20SISO	Ant1	2412	30~1000	-4.30	-59.51	≤ -34.3	PASS
11N20SISO	Ant1	2412	1000~26500	-4.30	-47.37	≤ -34.3	PASS
11N20SISO	Ant1	2437	0~Reference	-6.68	-6.68	---	PASS
11N20SISO	Ant1	2437	30~1000	-6.68	-62.01	≤ -36.68	PASS
11N20SISO	Ant1	2437	1000~26500	-6.68	-47.94	≤ -36.68	PASS
11N20SISO	Ant1	2462	0~Reference	-7.34	-7.34	---	PASS
11N20SISO	Ant1	2462	30~1000	-7.34	-59.07	≤ -37.34	PASS
11N20SISO	Ant1	2462	1000~26500	-7.34	-46.94	≤ -37.34	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.

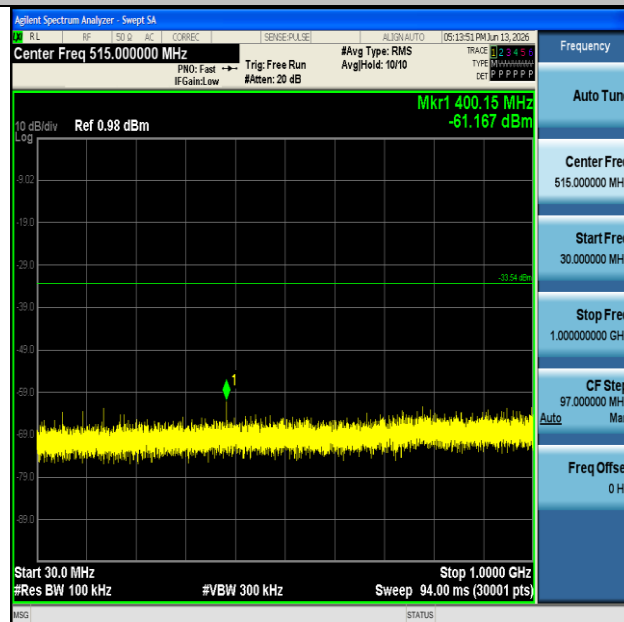




Test Graphs

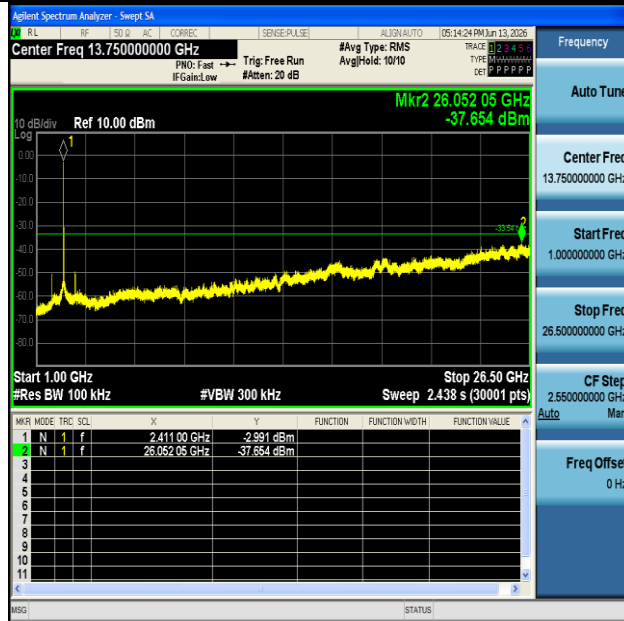


11B-Ant1-2412-0~Reference-PASS



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





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

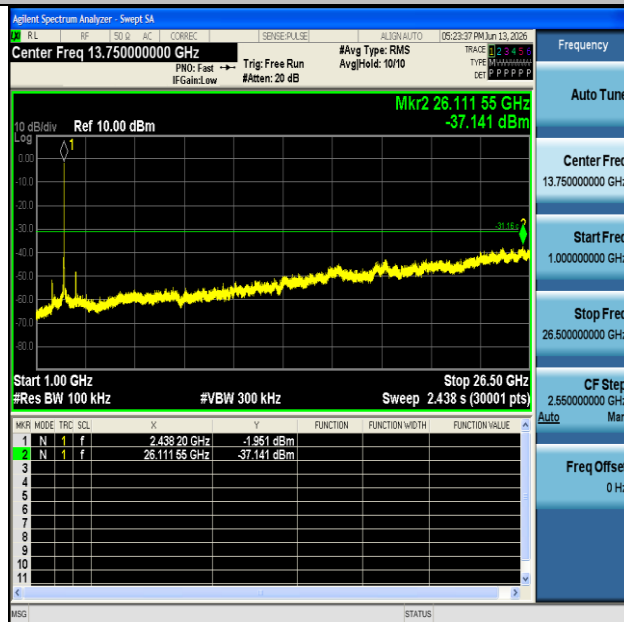


11B-Ant1-2437-0~Reference-PASS





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

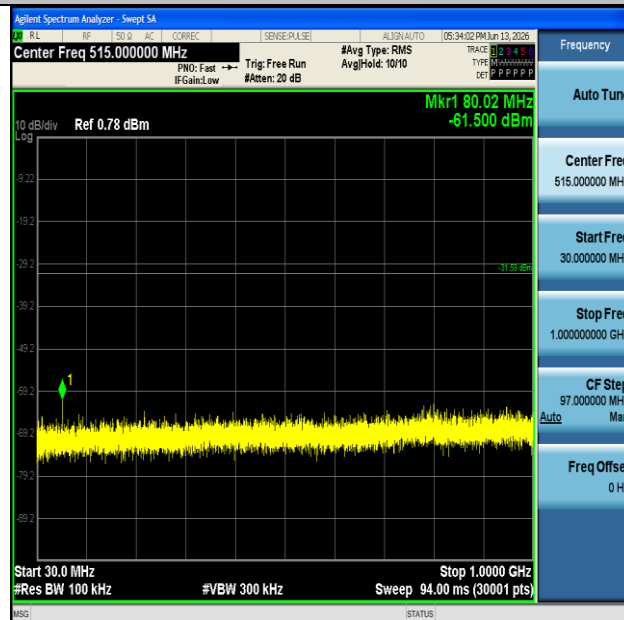


11B-Ant1-2437-1000~26500-PASS



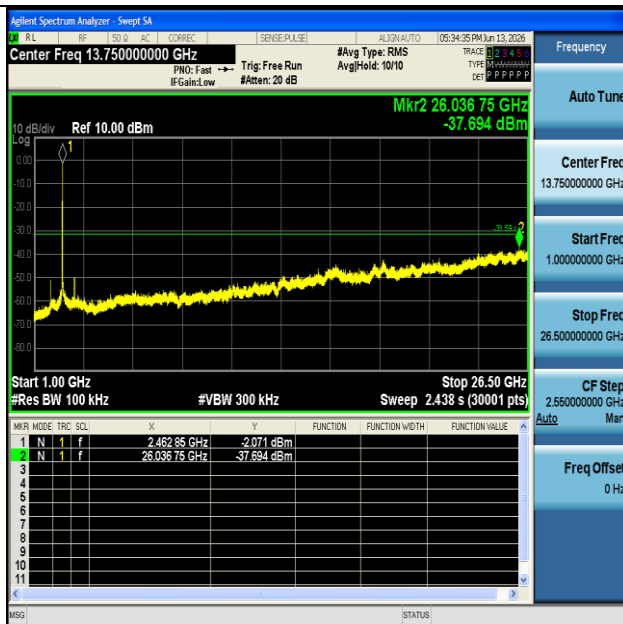


11B-Ant1-2462-0~Reference-PASS

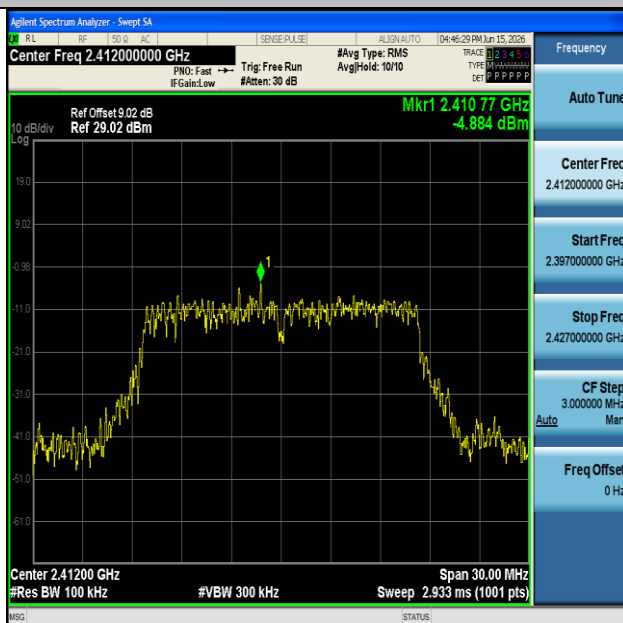


11B-Ant1-2462-30~1000-PASS



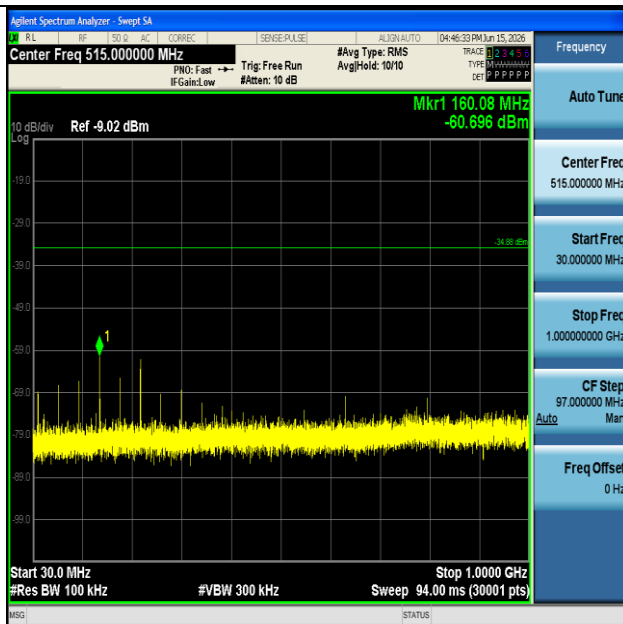


11B-Ant1-2462-1000~26500-PASS

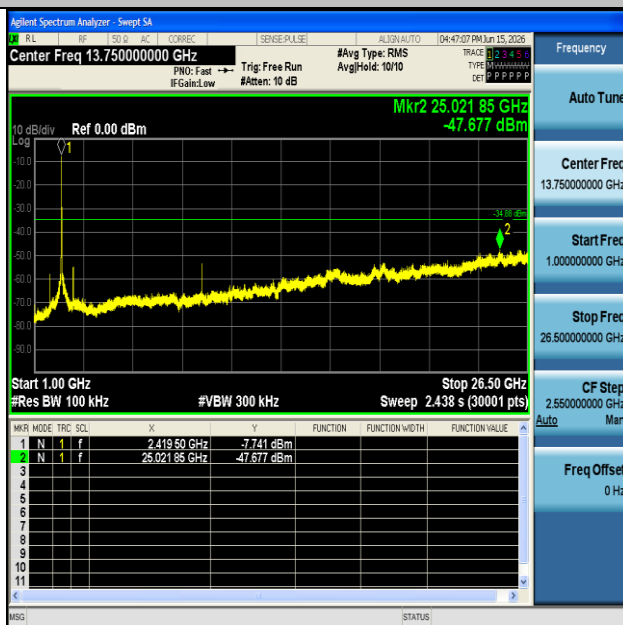


11G-Ant1-2412-0~Reference-PASS



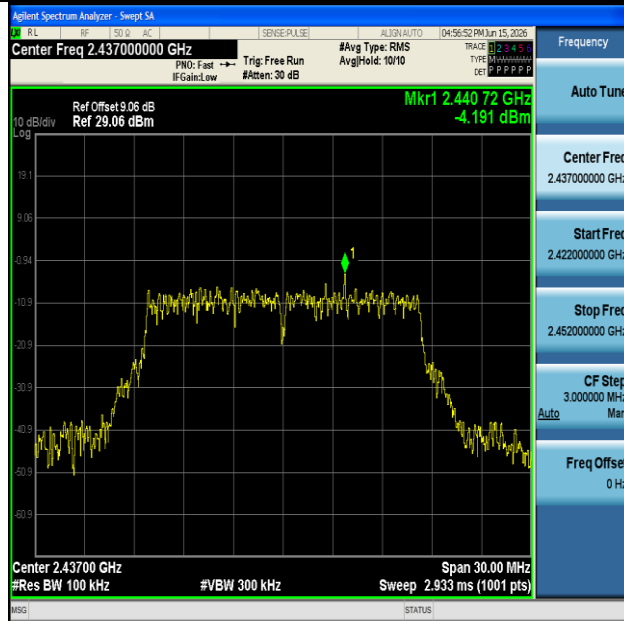


11G-Ant1-2412-30~1000-PASS

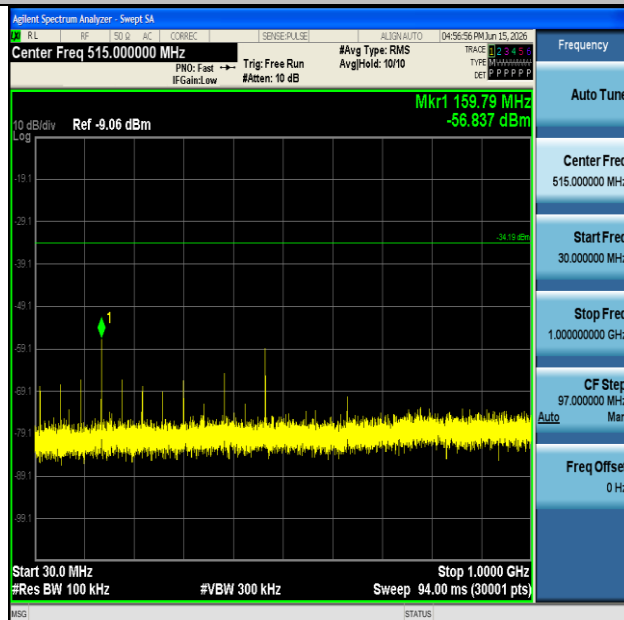


11G-Ant1-2412-1000~26500-PASS



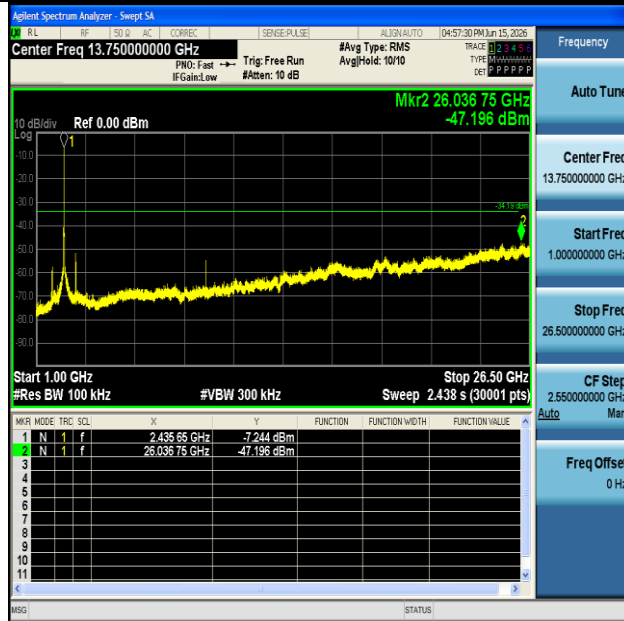


11G-Ant1-2437-0~Reference-PASS

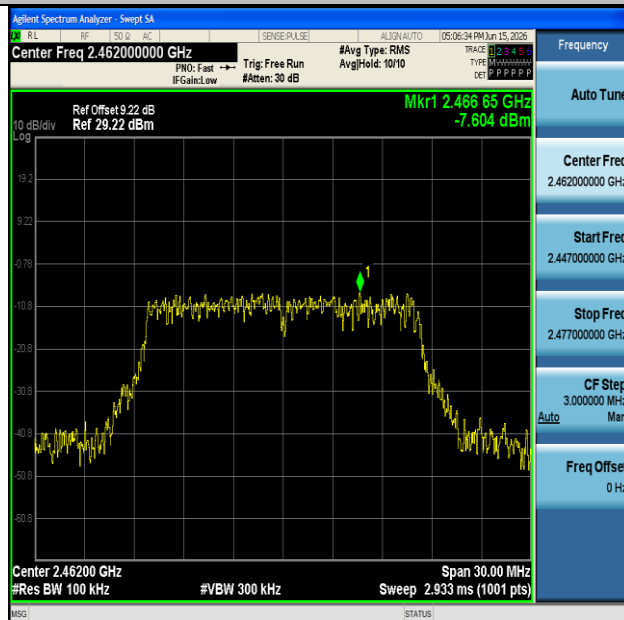


11G-Ant1-2437-30~1000-PASS



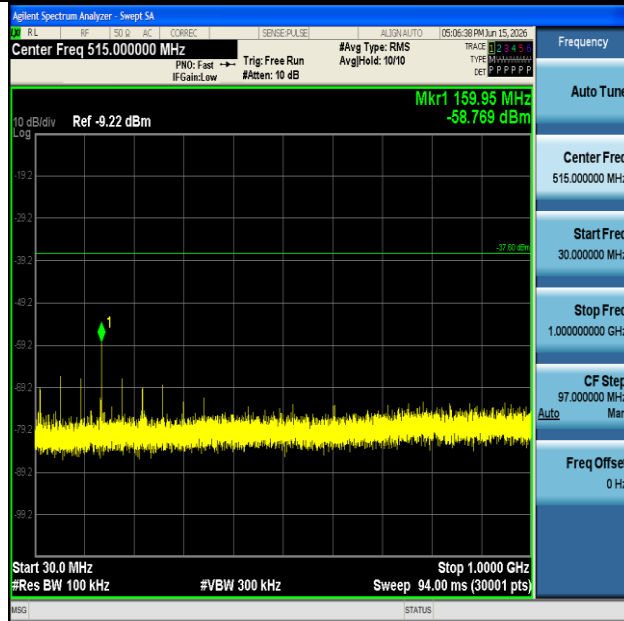


11G-Ant1-2437-1000~26500-PASS

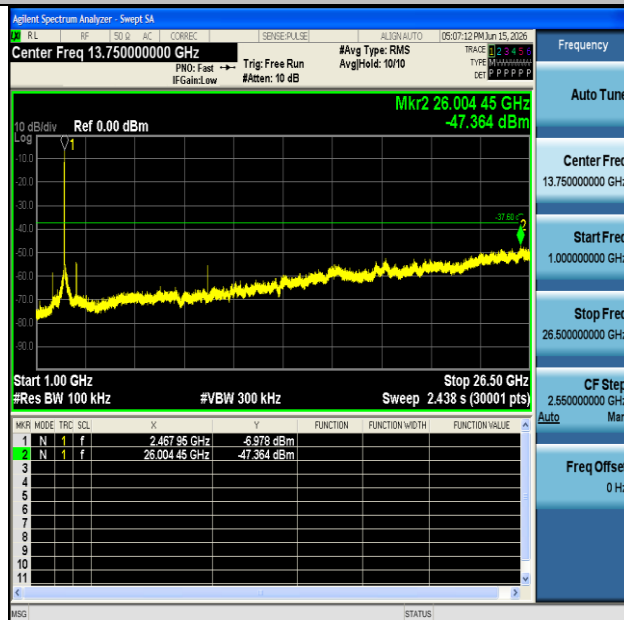


11G-Ant1-2462-0~Reference-PASS



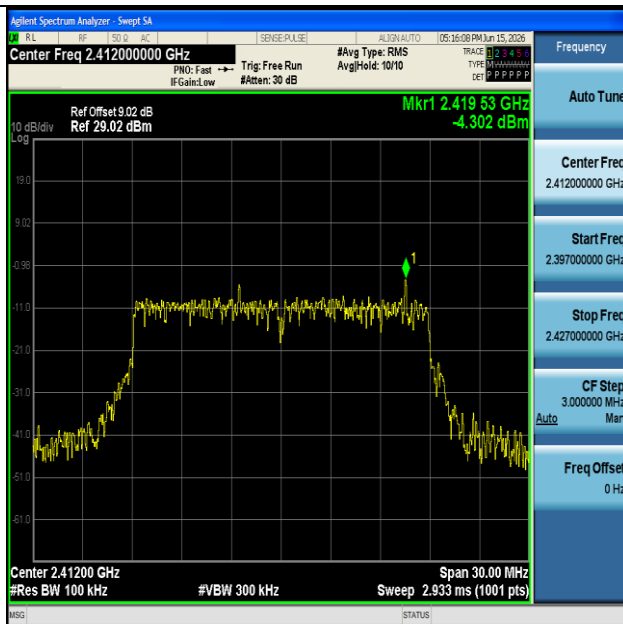


11G-Ant1-2462-30~1000-PASS

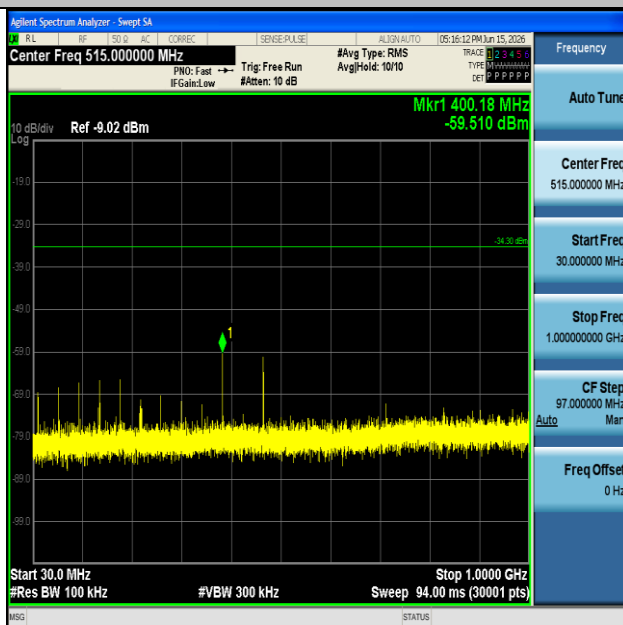


11G-Ant1-2462-1000~26500-PASS



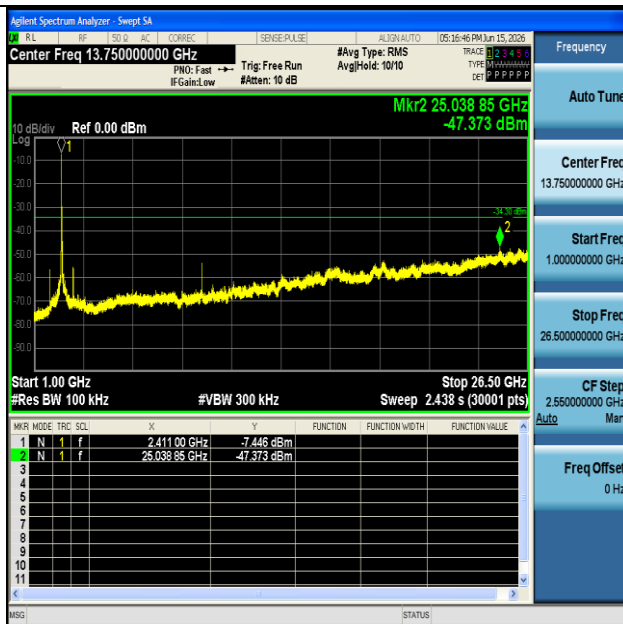


11N20SISO-Ant1-2412-0~Reference-PASS

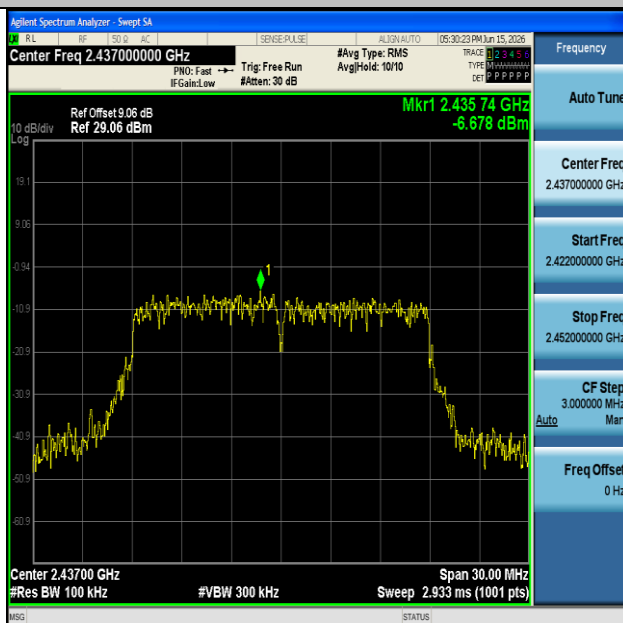


11N20SISO-Ant1-2412-30~1000-PASS



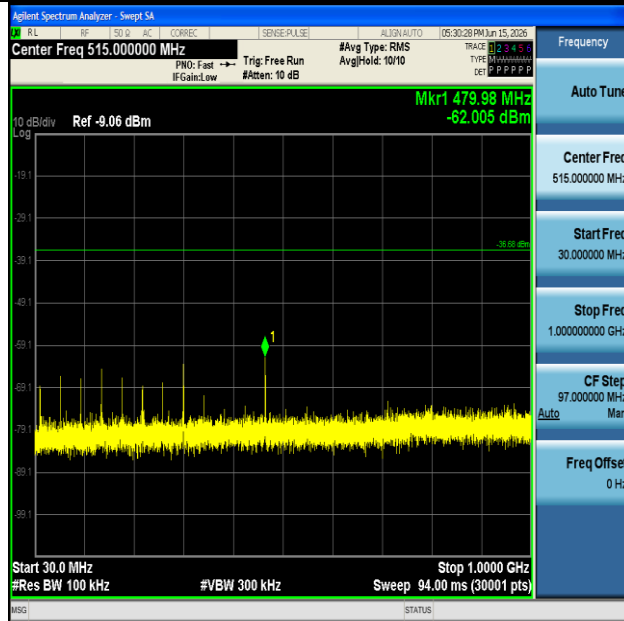


11N20SISO-Ant1-2412-1000~26500-PASS

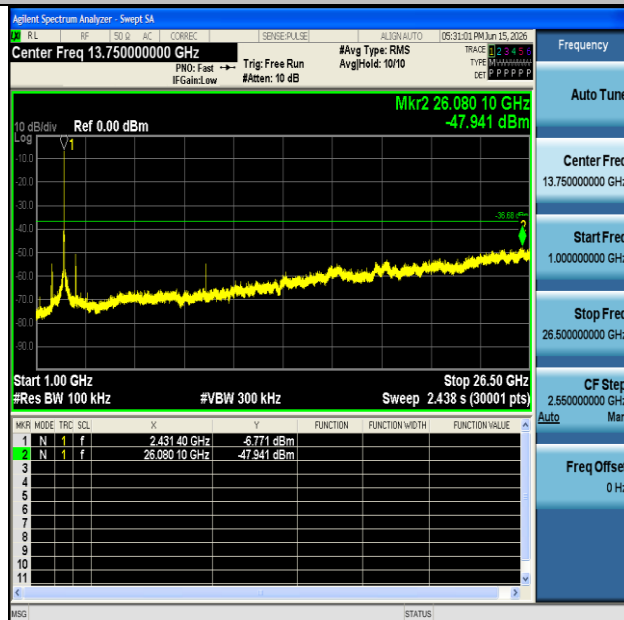


11N20SISO-Ant1-2437-0~Reference-PASS



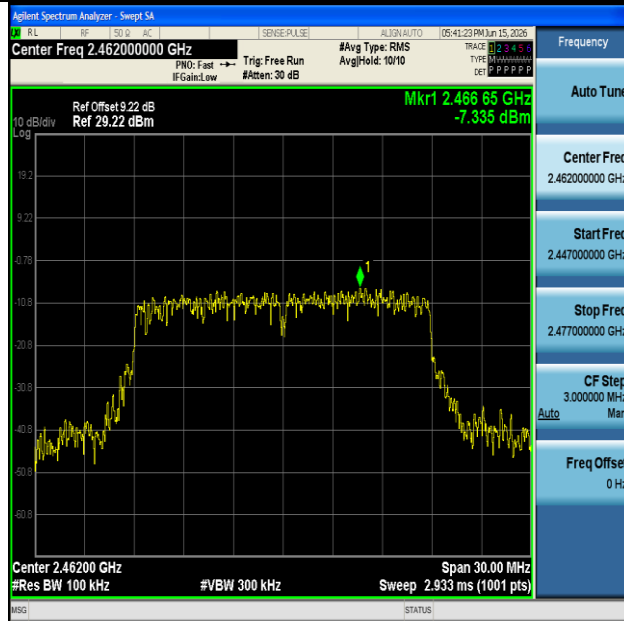


11N20SISO-Ant1-2437-30~1000-PASS

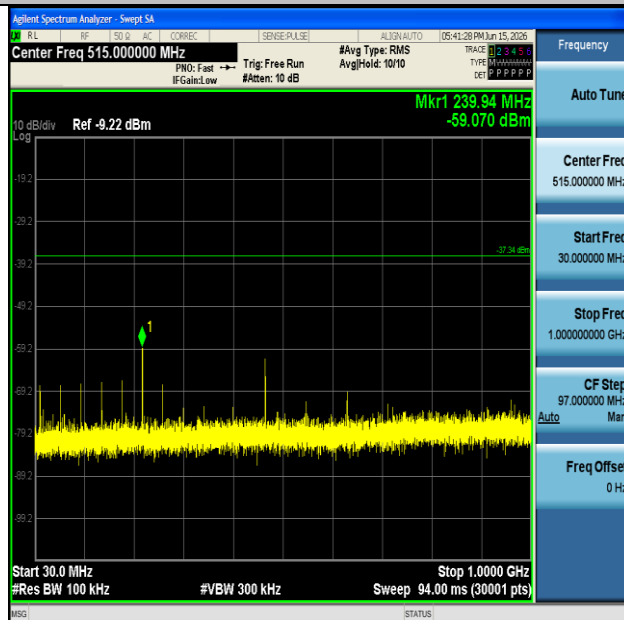


11N20SISO-Ant1-2437-1000~26500-PASS



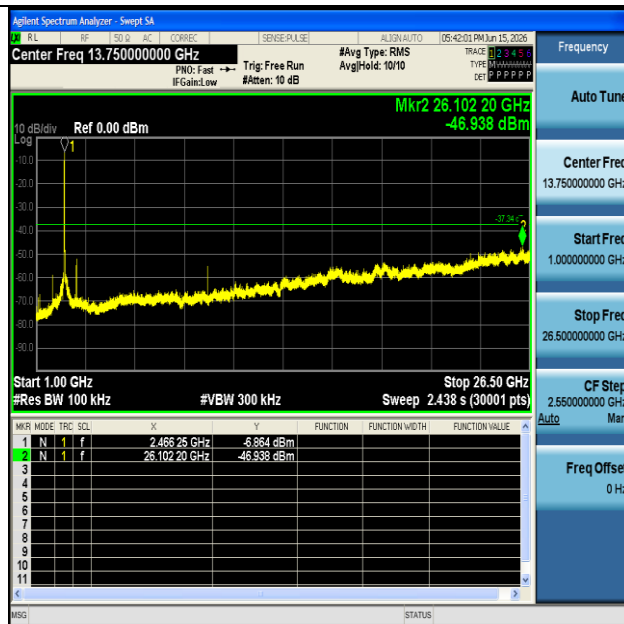


11N20SISO-Ant1-2462-0~Reference-PASS



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





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





Appendix G: Duty Cycle

Test Result

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Factor
11B	Ant1	2412	12.23	14.25	85.82	0.66
11B	Ant1	2437	12.22	14.25	85.75	0.67
11B	Ant1	2462	12.23	14.25	85.82	0.66
11G	Ant1	2412	2.03	4.06	50.00	3.01
11G	Ant1	2437	2.03	4.06	50.00	3.01
11G	Ant1	2462	2.03	4.06	50.00	3.01
11N20SISO	Ant1	2412	1.89	3.92	48.21	3.17
11N20SISO	Ant1	2437	1.89	3.92	48.21	3.17
11N20SISO	Ant1	2462	1.89	3.92	48.21	3.17

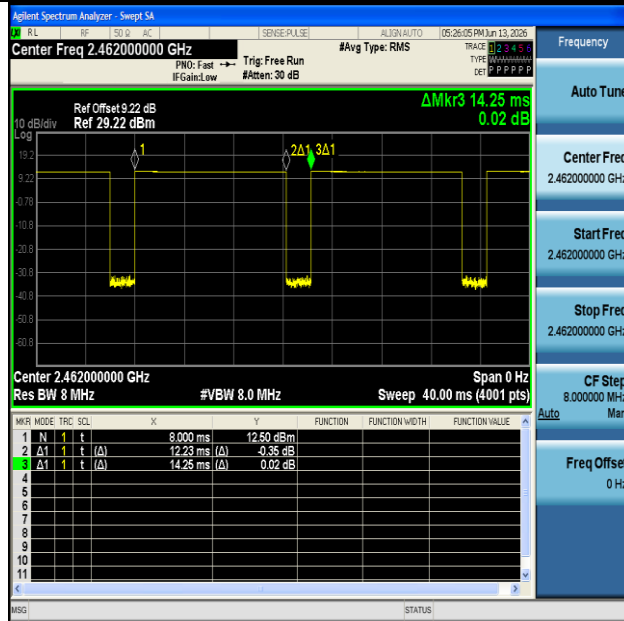
Note: offset(dB) = cable loss(dB) + attenuator factor(dB)



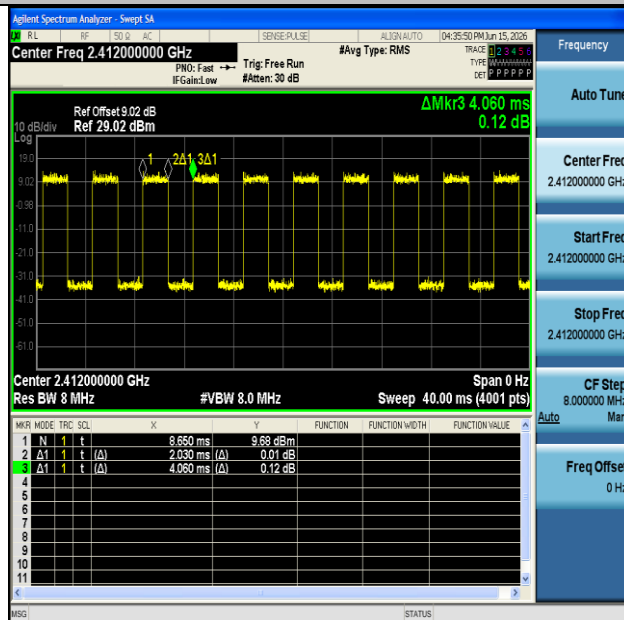


Test Graphs



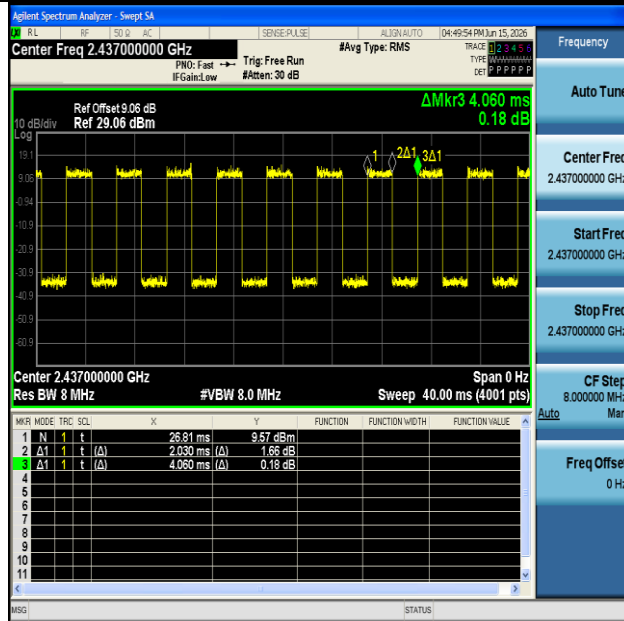


NTNV-11B-Ant1-2462

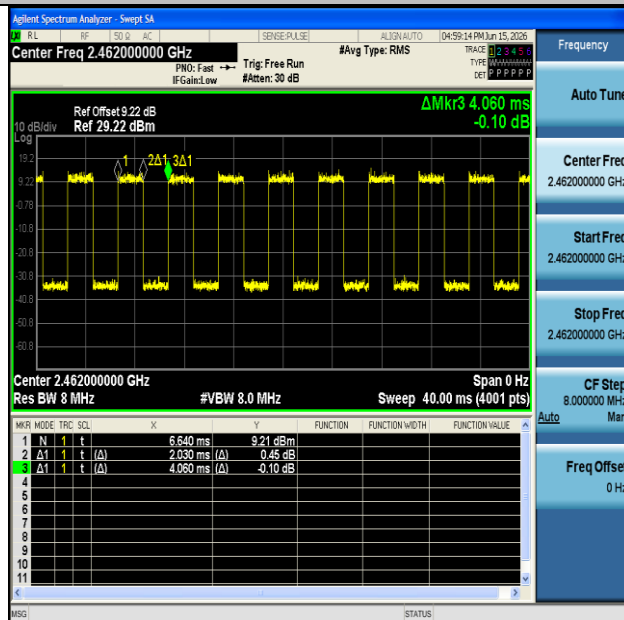


NTNV-11G-Ant1-2412



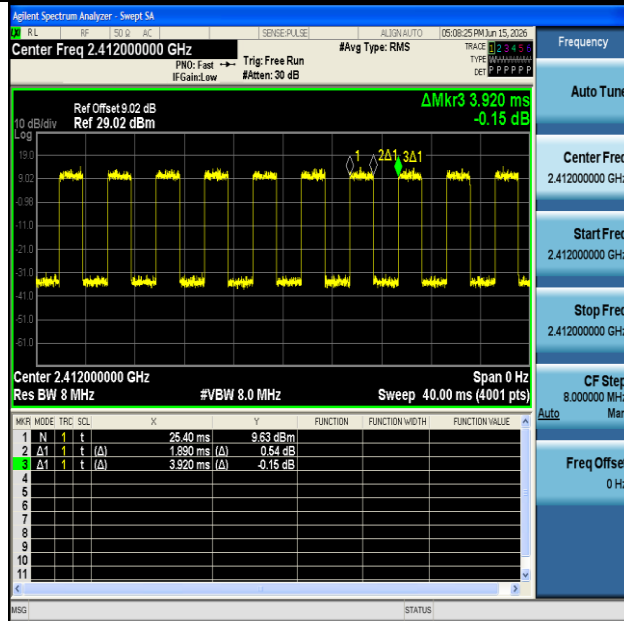


NTNV-11G-Ant1-2437

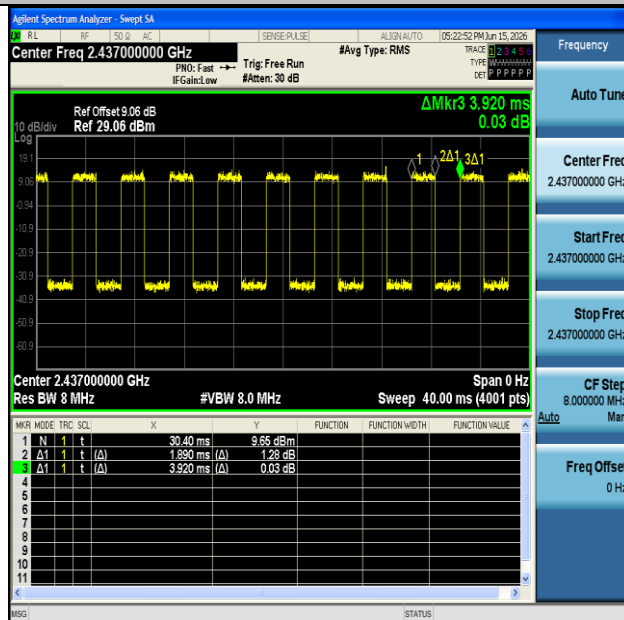


NTNV-11G-Ant1-2462





NTNV-11N20SISO-Ant1-2412



NTNV-11N20SISO-Ant1-2437



