FCC Appendix RF Test Data

FCC ID	**:**	**2BQR7-AP3001WF**
Company	**:**	**Guangdong Shengchu Electrical Appliance Technology Co., Ltd.**
EUT	**:**	**Air Purifier**
Model Number	**:**	**AP3001WF**
Report No.	**:**	**CTA25063001001**
Reviewed By	**:**	**Eric Wang**

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.000	2407.960	2416.960	0.5	PASS
		2437	8.560	2433.480	2442.040	0.5	PASS
		2462	9.080	2457.960	2467.040	0.5	PASS
11G	Ant1	2412	13.160	2407.000	2420.160	0.5	PASS
		2437	15.720	2428.840	2444.560	0.5	PASS
		2462	15.680	2454.480	2470.160	0.5	PASS
11N20SISO	Ant1	2412	13.160	2406.960	2420.120	0.5	PASS
		2437	16.680	2428.400	2445.080	0.5	PASS
		2462	15.840	2454.480	2470.320	0.5	PASS
11N40SISO	Ant1	2422	21.360	2409.440	2430.800	0.5	PASS
		2437	35.280	2419.240	2454.520	0.5	PASS
		2452	35.440	2434.480	2469.920	0.5	PASS

Test Graphs

11B_Ant1_2412

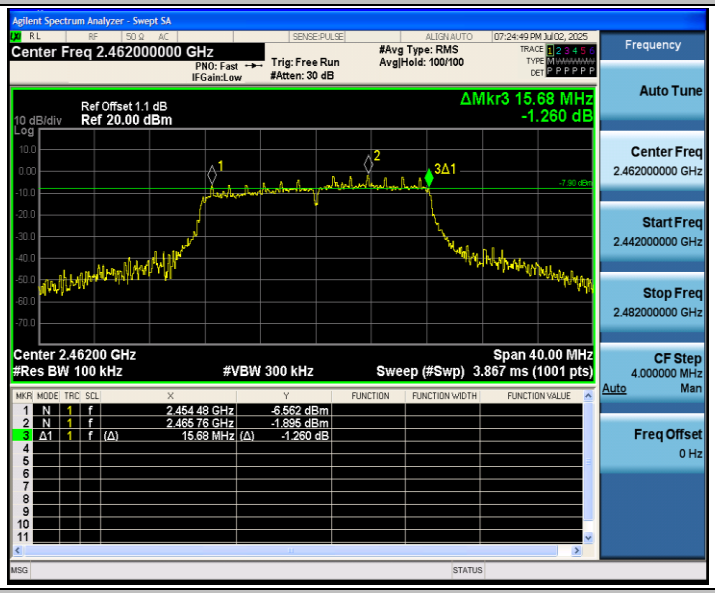
11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

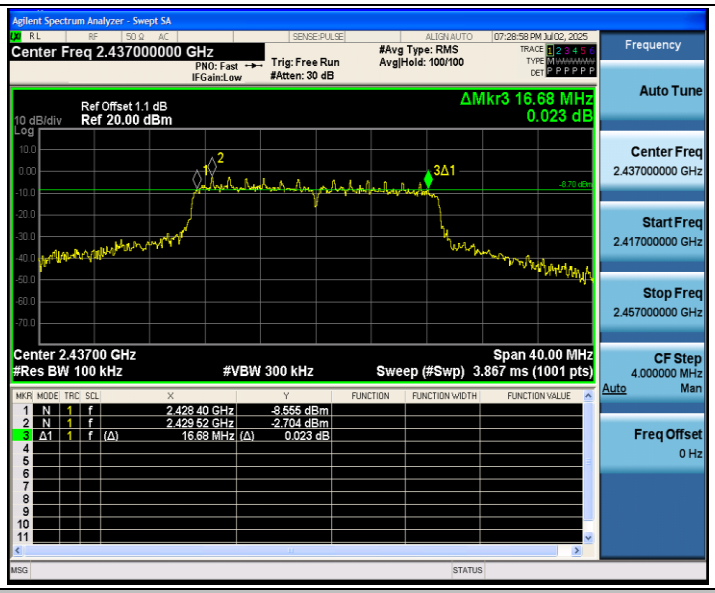
11G_Ant1_2437

11G_Ant1_2462

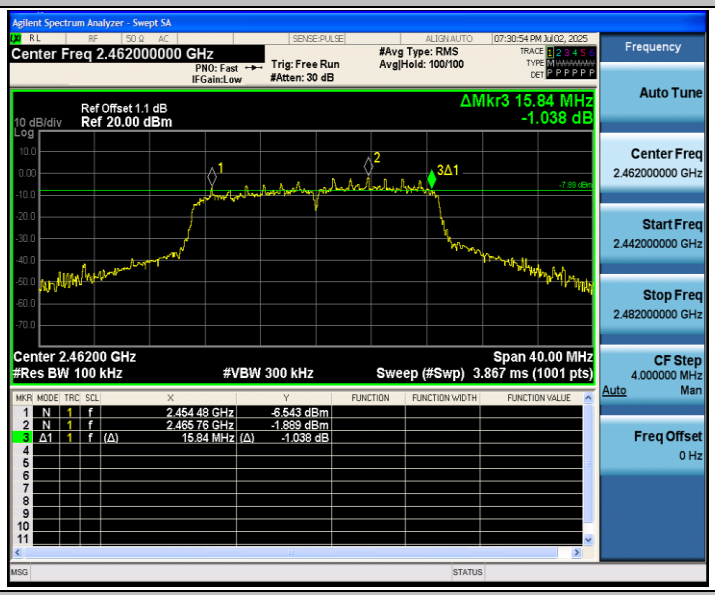


11N20SISO_Ant1_2412

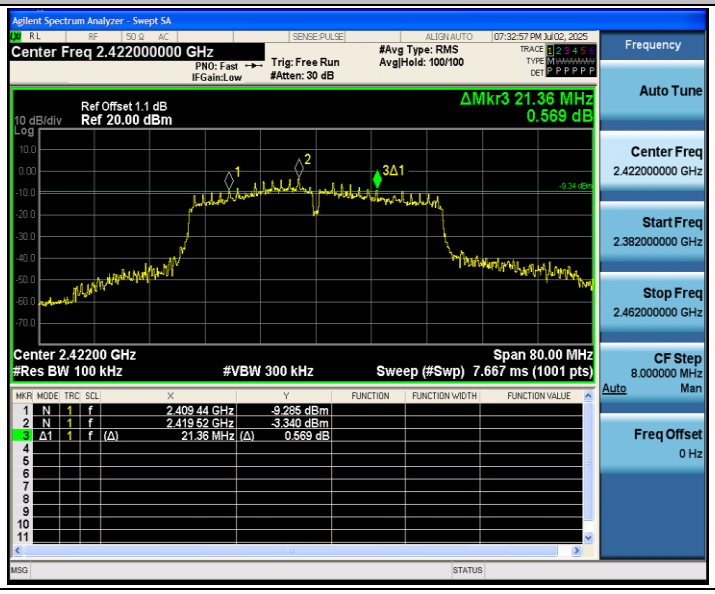
11N20SISO_Ant1_2437

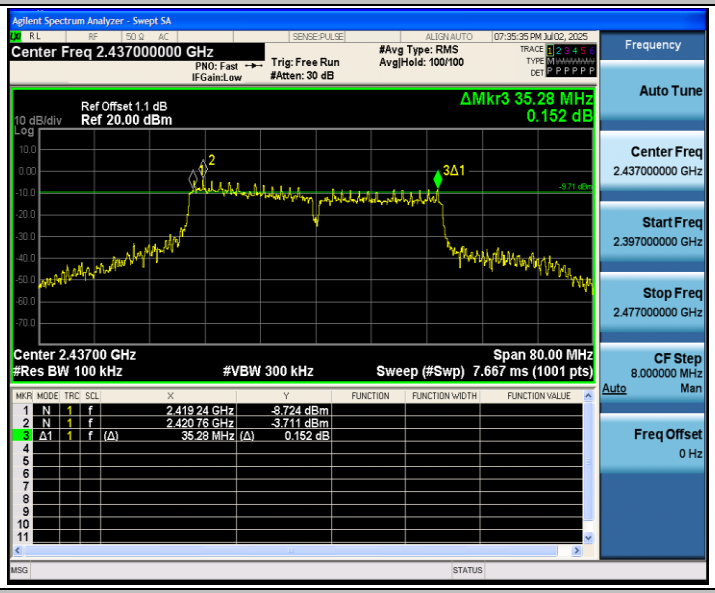


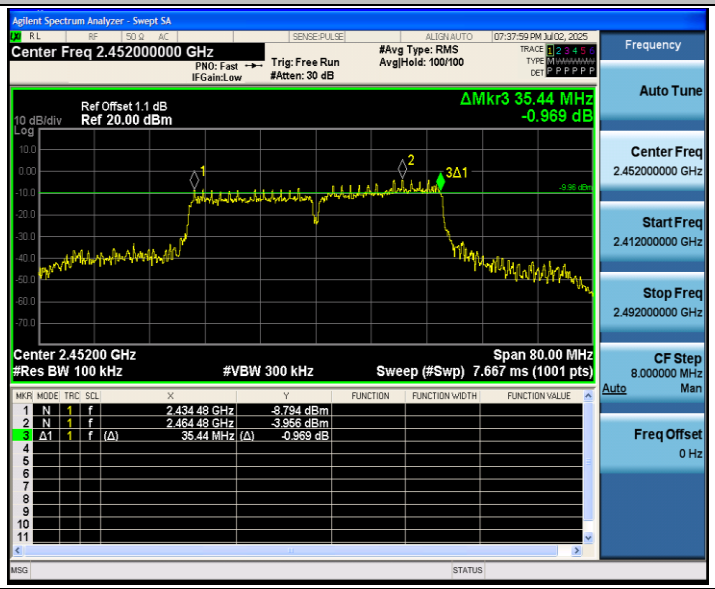
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


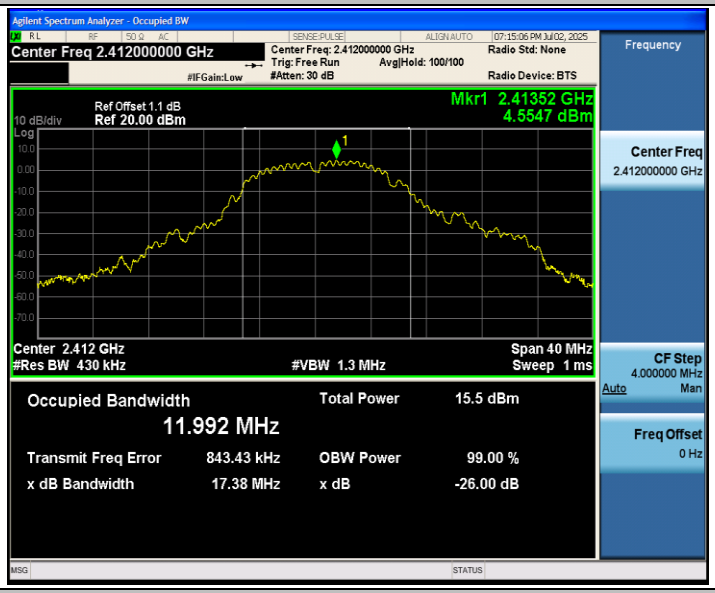
Appendix B: Occupied Channel Bandwidth

Test Result

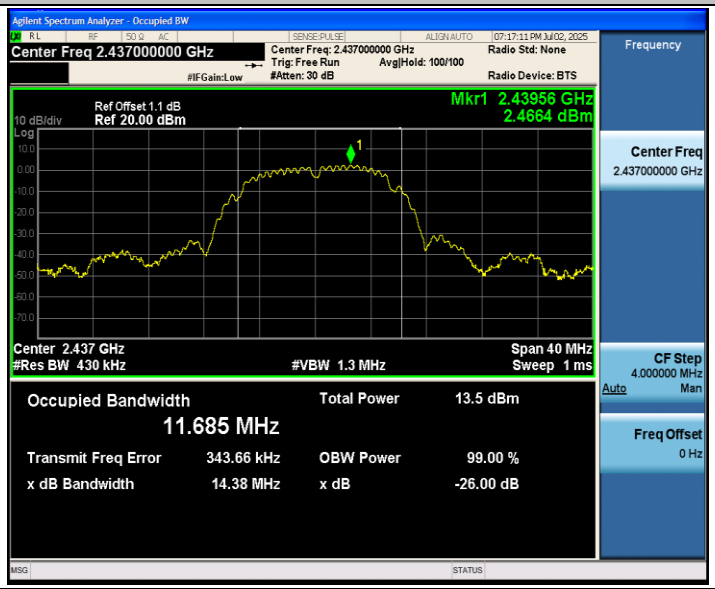
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.992	2406.8474	2418.8394	---	---
		2437	11.685	2431.5012	2443.1862	---	---
		2462	11.587	2456.5384	2468.1254	---	---
11G	Ant1	2412	16.624	2404.0389	2420.6629	---	---
		2437	16.729	2428.5185	2445.2475	---	---
		2462	16.533	2453.9045	2470.4375	---	---
11N20SISO	Ant1	2412	17.623	2403.5725	2421.1955	---	---
		2437	17.814	2427.9782	2445.7922	---	---
		2462	17.492	2453.4225	2470.9145	---	---
11N40SISO	Ant1	2422	35.421	2404.4367	2439.8577	---	---
		2437	36.660	2418.5683	2455.2283	---	---
		2452	36.396	2434.0114	2470.4074	---	---

Test Graphs

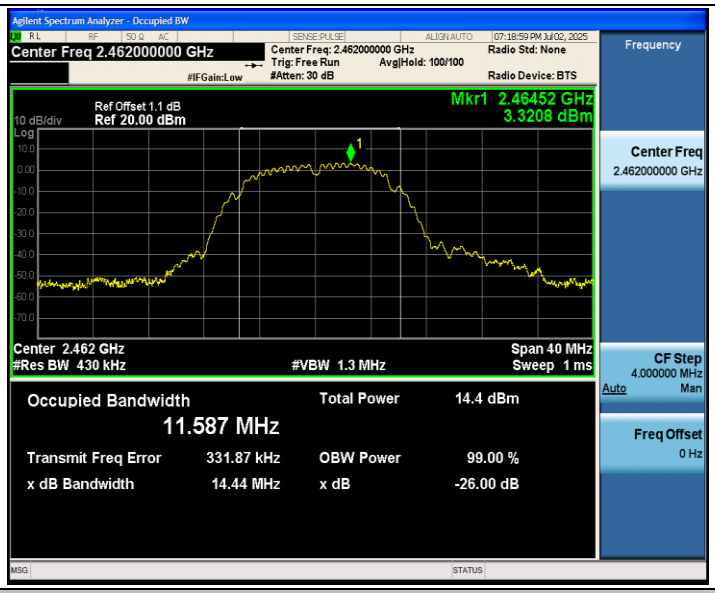
11B_Ant1_2412



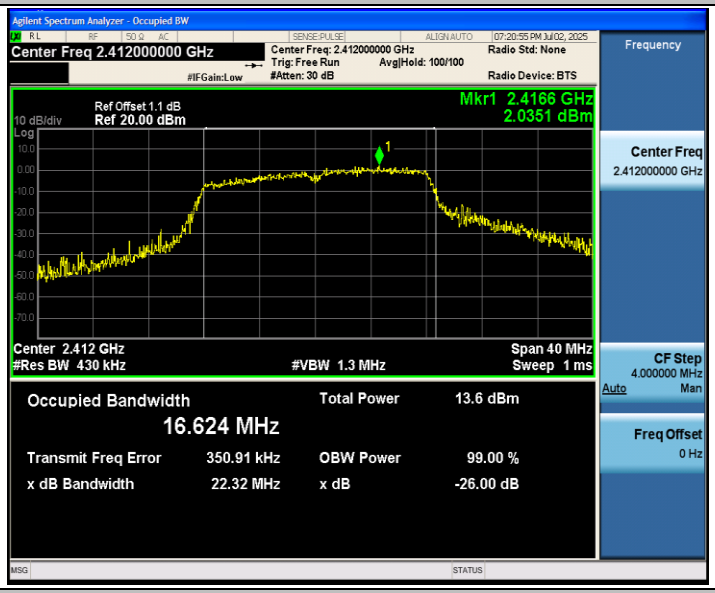
11B_Ant1_2437



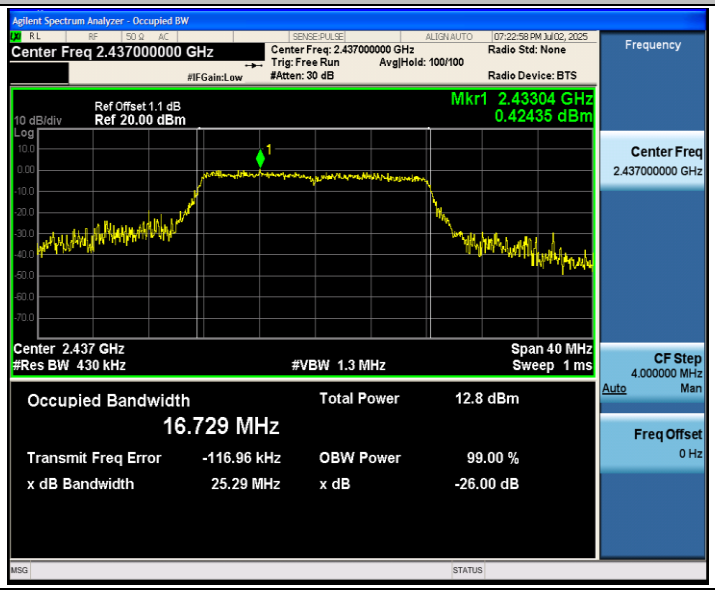
11B_Ant1_2462



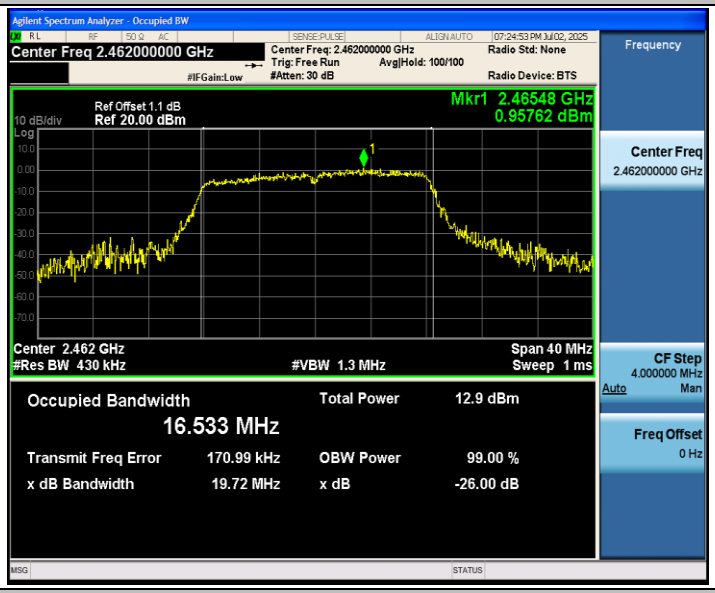
11G_Ant1_2412



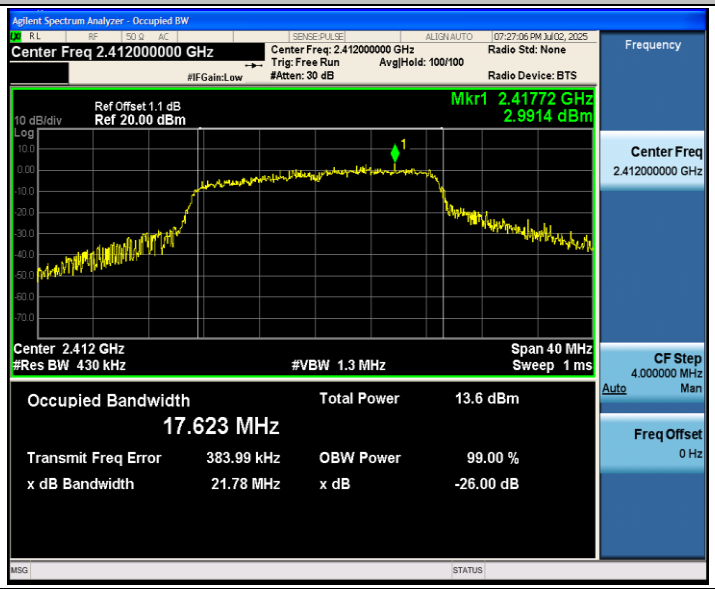
11G_Ant1_2437



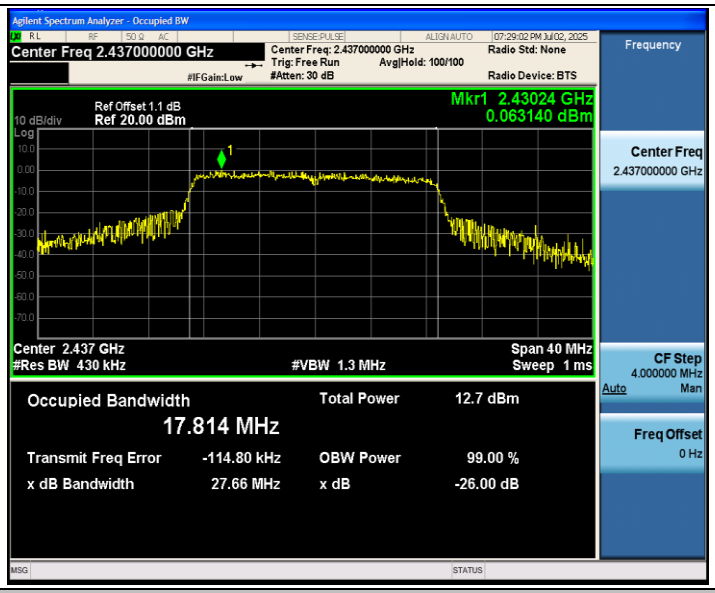
11G_Ant1_2462



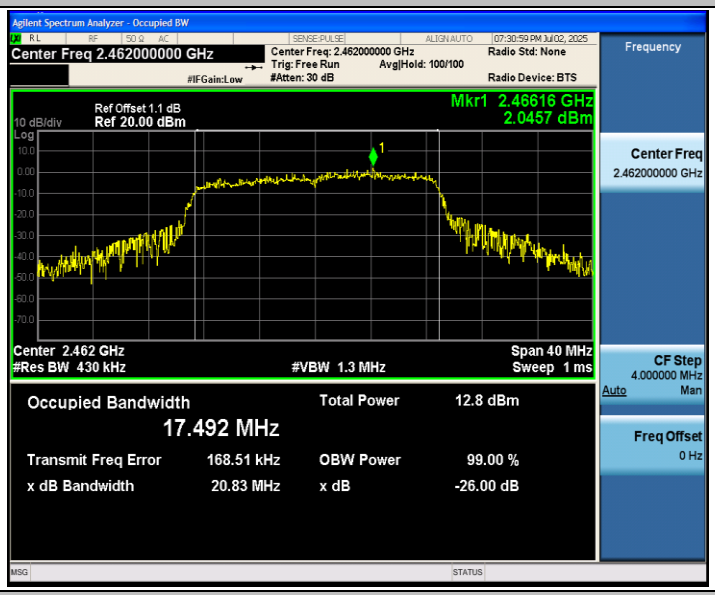
11N20SISO_Ant1_2412



11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422

11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	15.33	≤30.00	PASS
		2437	13.21	≤30.00	PASS
		2462	14.28	≤30.00	PASS
11G	Ant1	2412	14.05	≤30.00	PASS
		2437	13.32	≤30.00	PASS
		2462	13.57	≤30.00	PASS
11N20SISO	Ant1	2412	13.80	≤30.00	PASS
		2437	13.38	≤30.00	PASS
		2462	13.27	≤30.00	PASS
11N40SISO	Ant1	2422	12.46	≤30.00	PASS
		2437	13.11	≤30.00	PASS
		2452	13.67	≤30.00	PASS

Appendix D: Maximum power spectral density

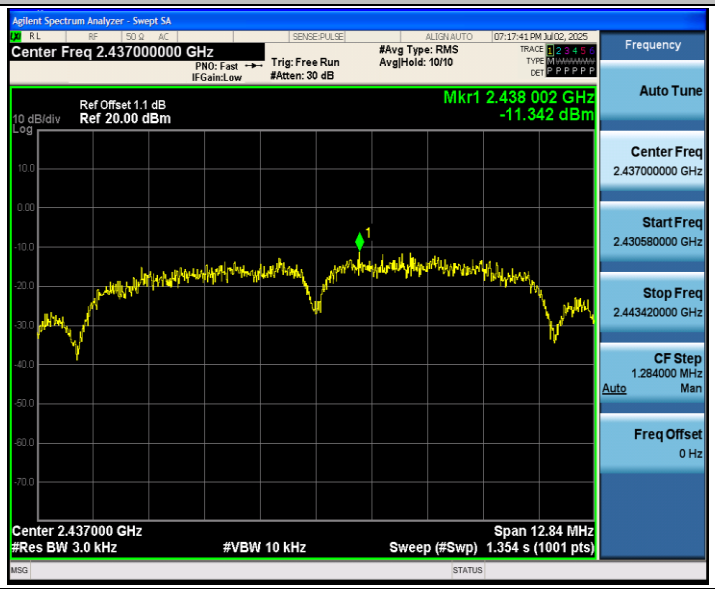
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.02	≤8.00	PASS
		2437	-11.34	≤8.00	PASS
		2462	-10.53	≤8.00	PASS
11G	Ant1	2412	-16.14	≤8.00	PASS
		2437	-18.84	≤8.00	PASS
		2462	-17.94	≤8.00	PASS
11N20SISO	Ant1	2412	-16.96	≤8.00	PASS
		2437	-18.21	≤8.00	PASS
		2462	-18.13	≤8.00	PASS
11N40SISO	Ant1	2422	-19.31	≤8.00	PASS
		2437	-19.92	≤8.00	PASS
		2452	-18.21	≤8.00	PASS

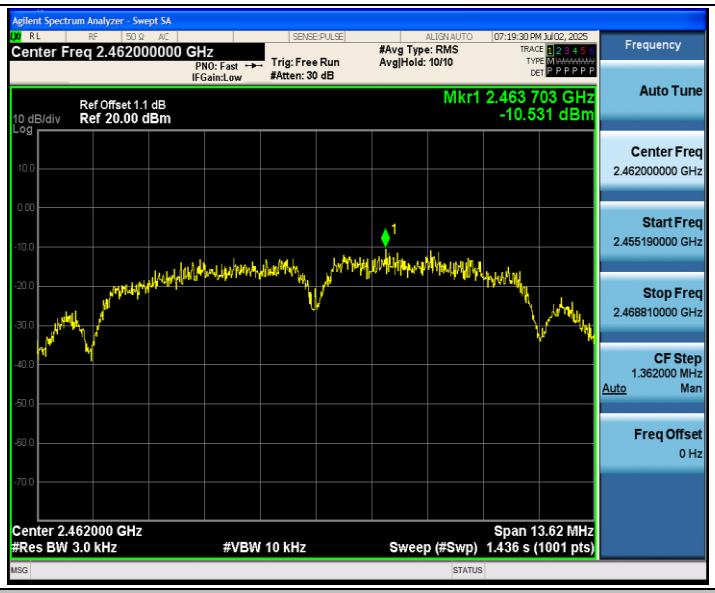
Test Graphs

11B_Ant1_2412

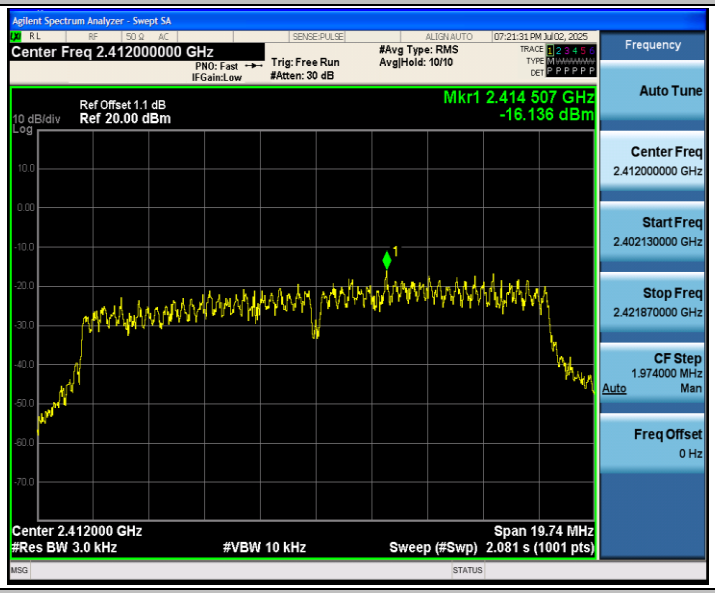
11B_Ant1_2437



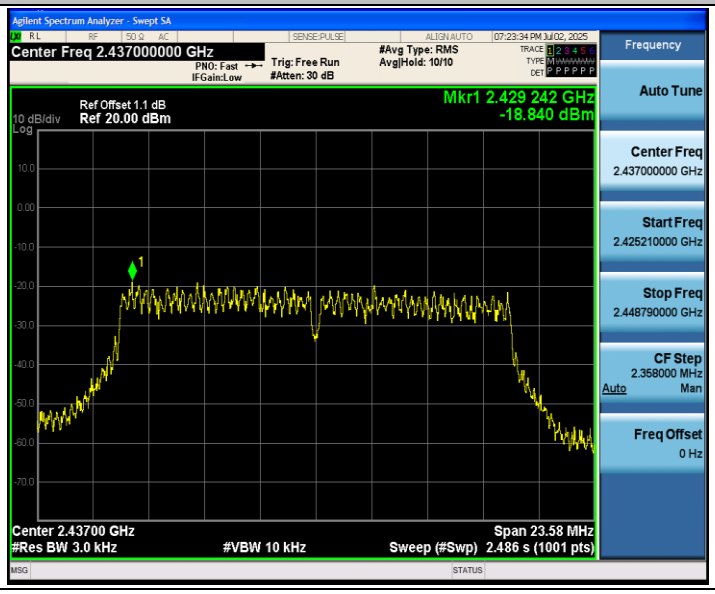
11B_Ant1_2462



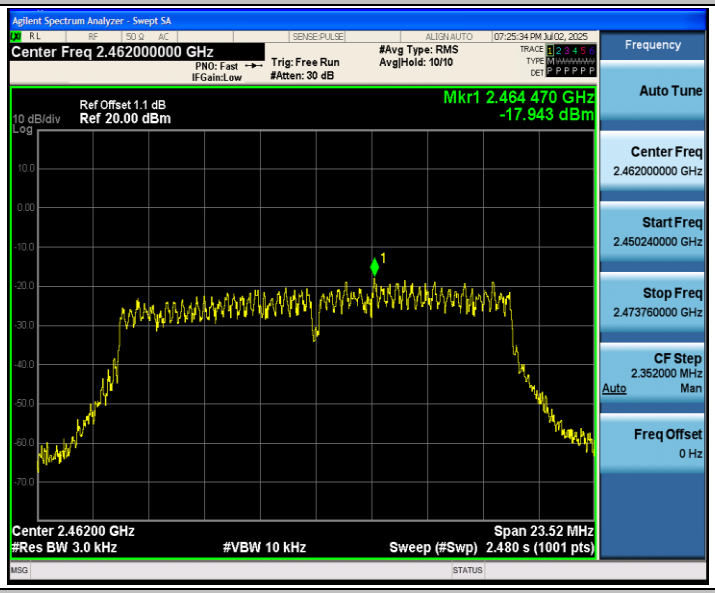
11G_Ant1_2412



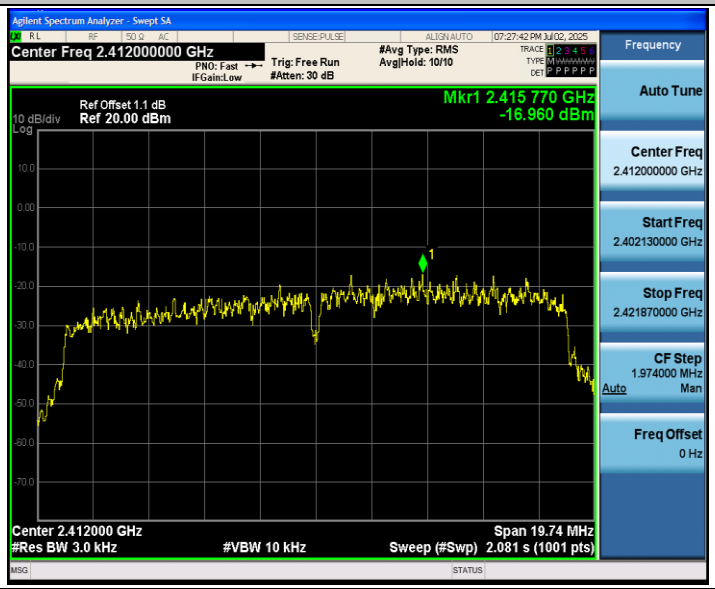
11G_Ant1_2437



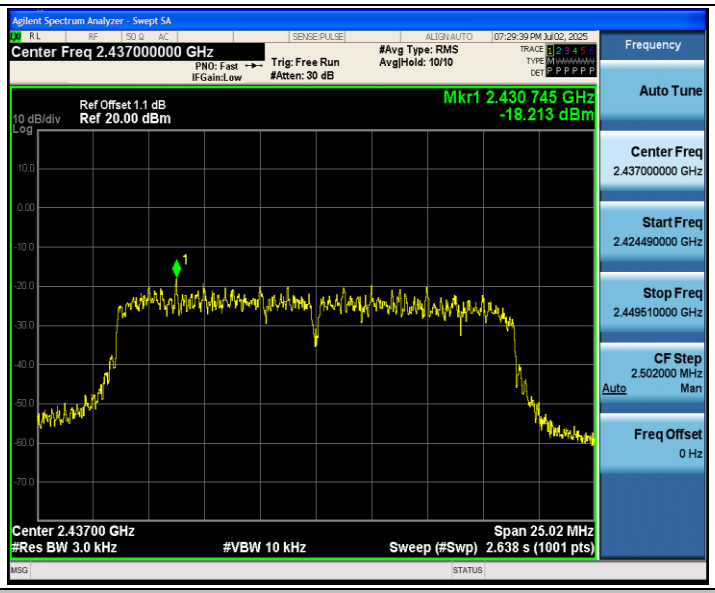
11G_Ant1_2462



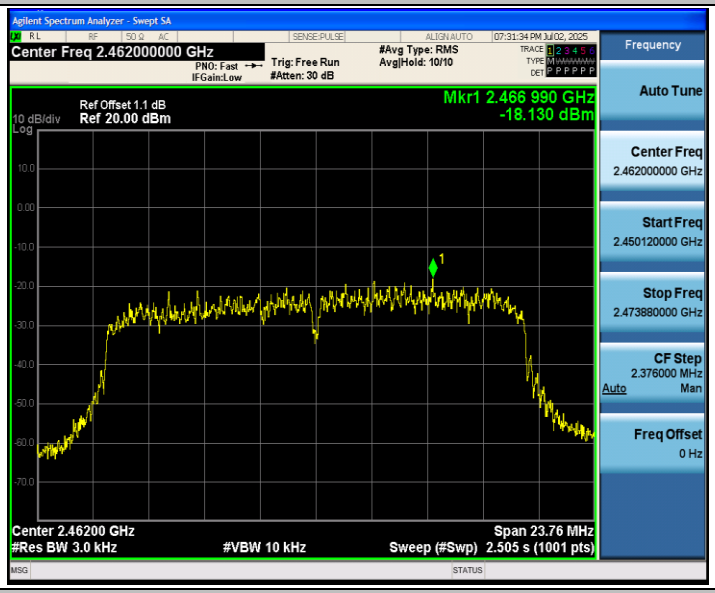
11N20SISO_Ant1_2412



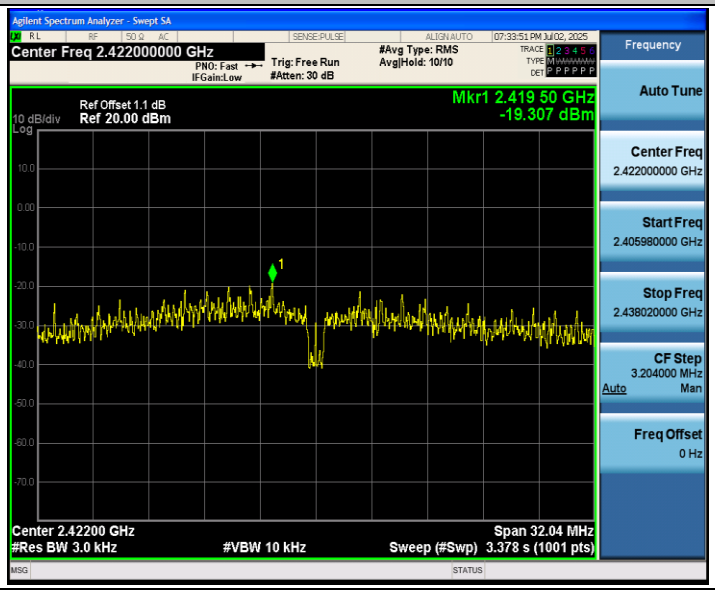
11N20SISO_Ant1_2437

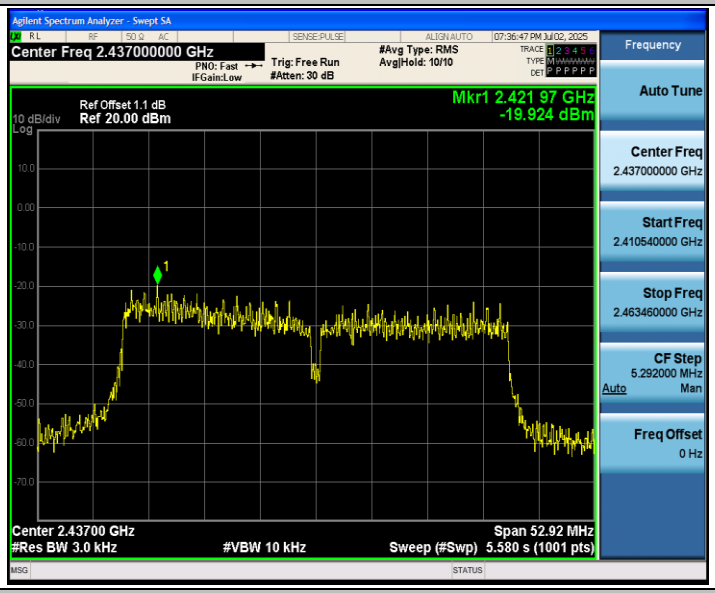


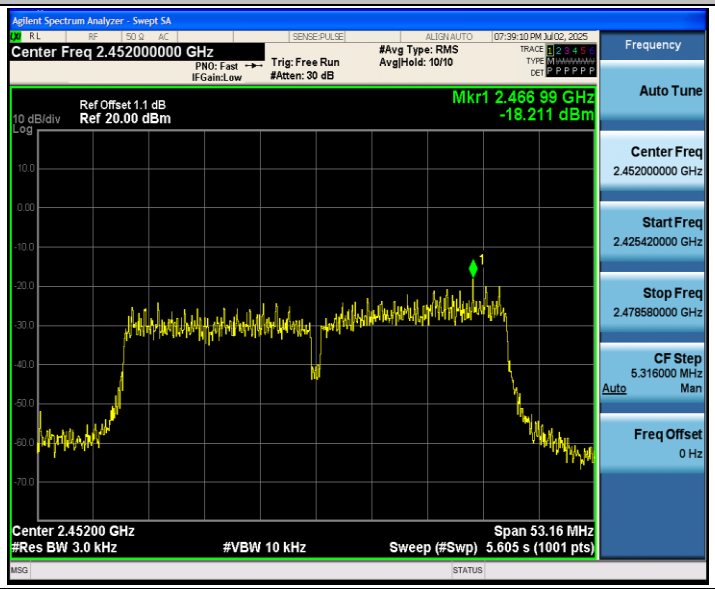
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


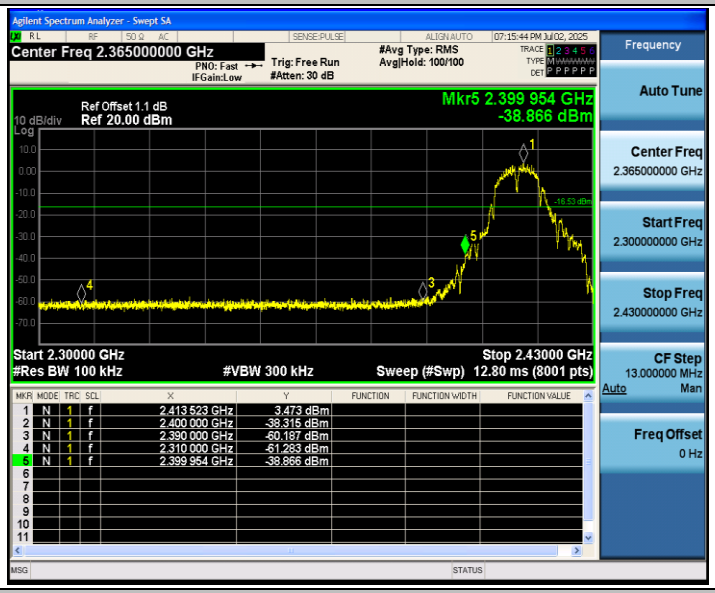
Appendix E: Band edge measurements

Test Result

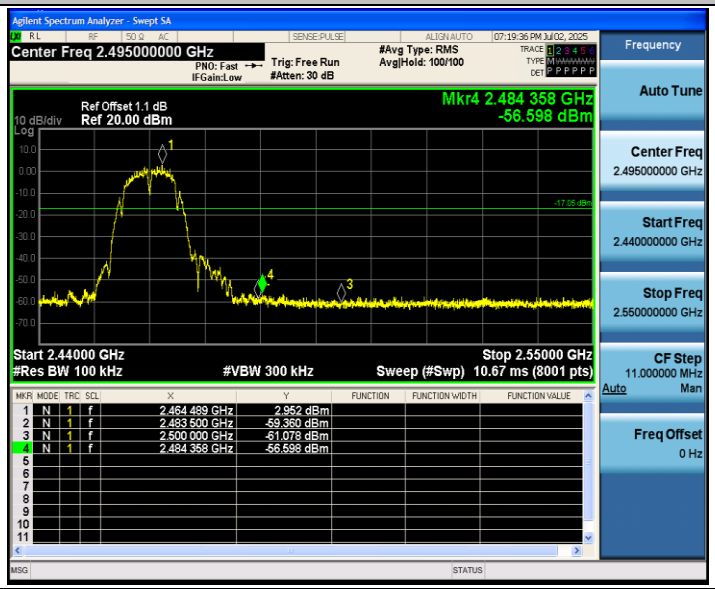
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.47	-38.87	≤-16.53	PASS
		High	2462	2.95	-56.6	≤-17.05	PASS
11G	Ant1	Low	2412	-0.58	-42.91	≤-20.58	PASS
		High	2462	-1.87	-48.53	≤-21.87	PASS
11N20SISO	Ant1	Low	2412	-0.64	-38.68	≤-20.64	PASS
		High	2462	-1.92	-50.08	≤-21.92	PASS
11N40SISO	Ant1	Low	2422	-3.35	-42.88	≤-23.35	PASS
		High	2452	-3.87	-40.68	≤-23.87	PASS

Test Graphs

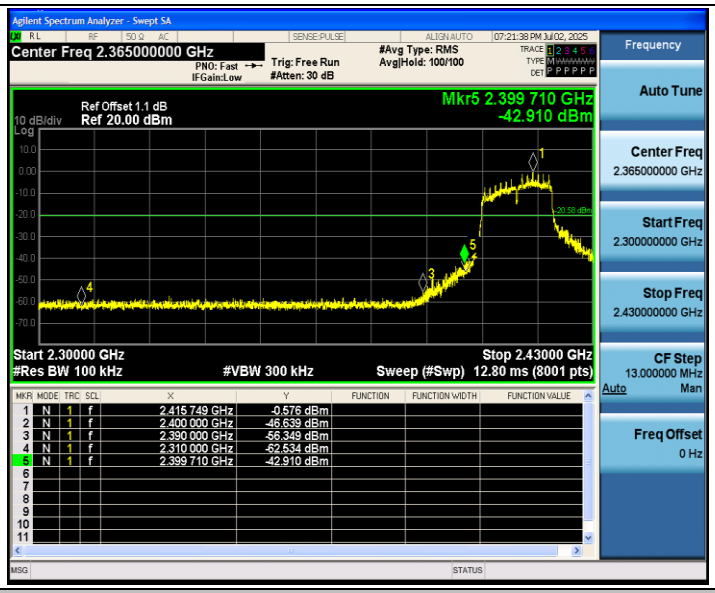
11B_Ant1_Low_2412



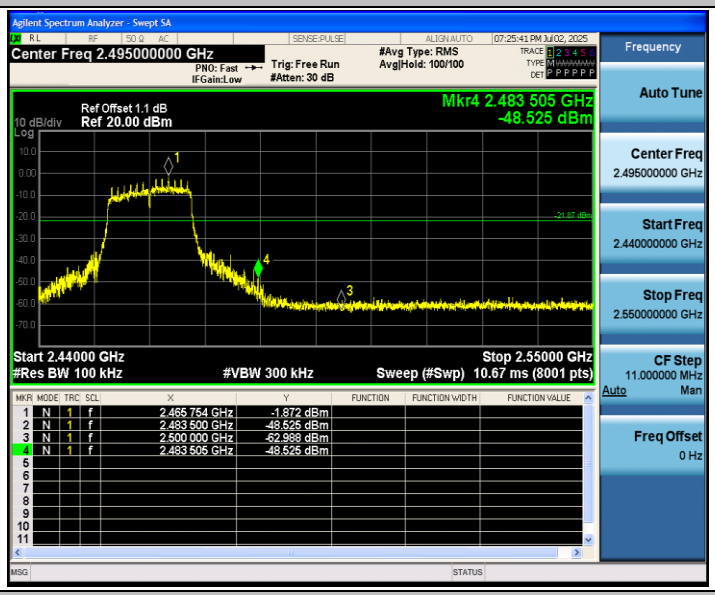
11B_Ant1_High_2462



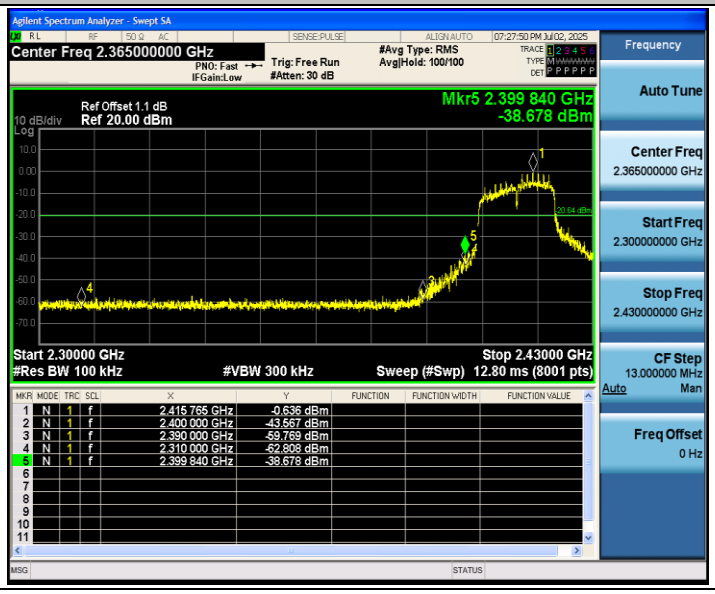
11G_Ant1_Low_2412



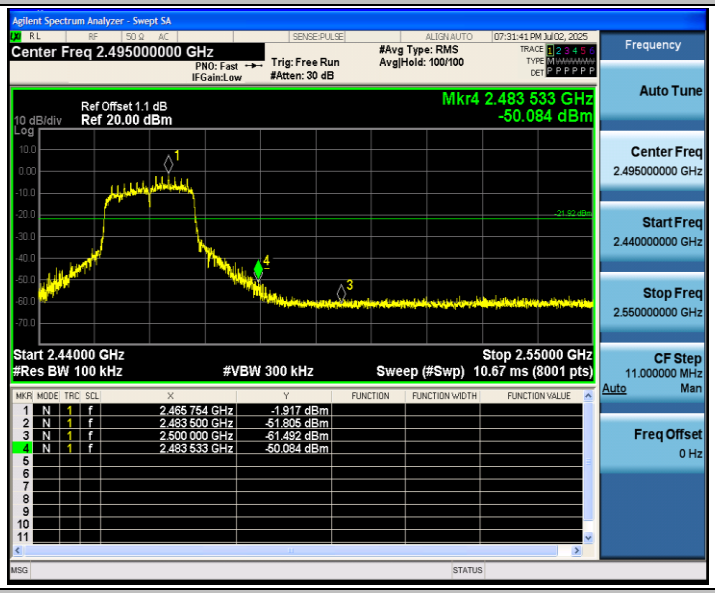
11G_Ant1_High_2462



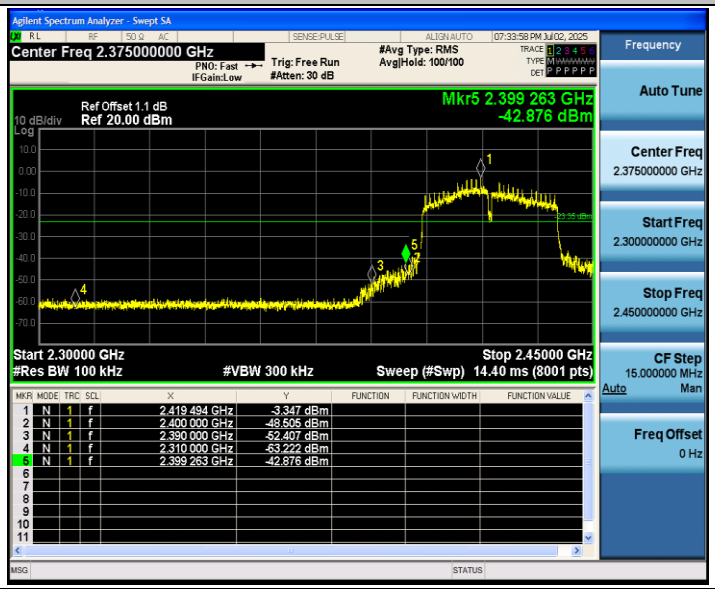
11N20SISO_Ant1_Low_2412



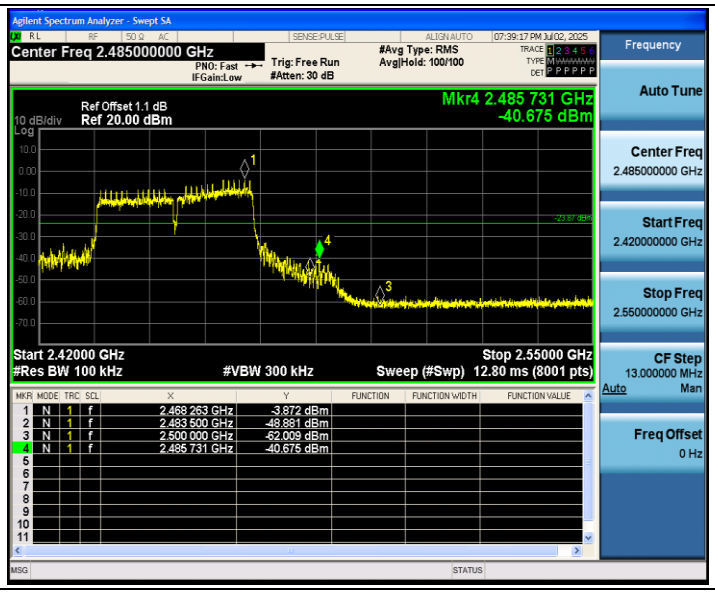
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.485000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
07:39:17 PM Jul 02, 2025
Ref Offset 1.1 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.485 731 GHz
-40.675 dBm
Start 2.42000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep (#Swp) 12.80 ms (8001 pts)
1 N 1 f 2.468 263 GHz -3.872 dBm
2 N 1 f 2.483 500 GHz -48.881 dBm
3 N 1 f 2.500 000 GHz -62.009 dBm
4 N 1 f 2.485 731 GHz -40.675 dBm
Frequency
Auto Tune
Center Freq
2.485000000 GHz
Start Freq
2.420000000 GHz
Stop Freq
2.550000000 GHz
CF Step
13.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Conducted Spurious Emission

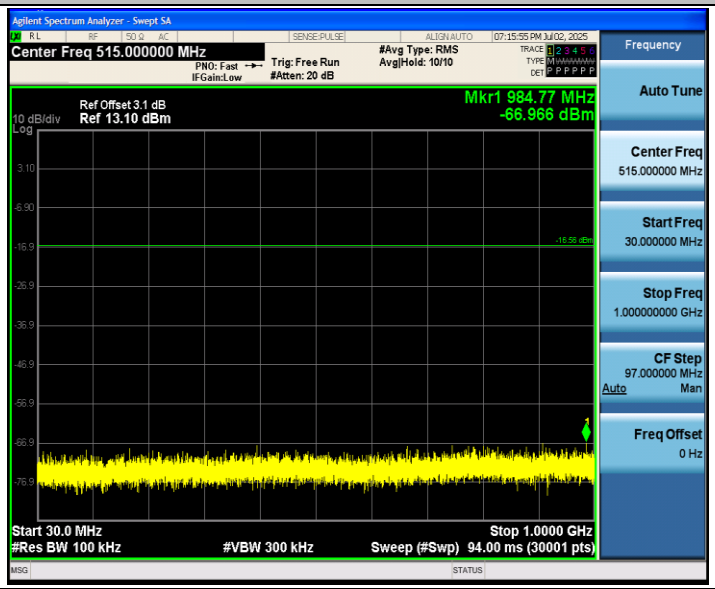
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	3.44	3.44	---	PASS
			30~1000	3.44	-66.97	≤-16.56	PASS
			1000~26500	3.44	-41.12	≤-16.56	PASS
		2437	Reference	2.40	2.40	---	PASS
			30~1000	2.40	-67.34	≤-17.6	PASS
			1000~26500	2.40	-40.16	≤-17.6	PASS
		2462	Reference	0.12	0.12	---	PASS
			30~1000	0.12	-67.49	≤-19.88	PASS
			1000~26500	0.12	-44.38	≤-19.88	PASS
11G	Ant1	2412	Reference	-1.41	-1.41	---	PASS
			30~1000	-1.41	-65.91	≤-21.41	PASS
			1000~26500	-1.41	-49.09	≤-21.41	PASS
		2437	Reference	-3.16	-3.16	---	PASS
			30~1000	-3.16	-67.25	≤-23.16	PASS
			1000~26500	-3.16	-42.64	≤-23.16	PASS
		2462	Reference	-2.00	-2.00	---	PASS
			30~1000	-2.00	-67.4	≤-22	PASS
			1000~26500	-2.00	-45.99	≤-22	PASS
11N20SISO	Ant1	2412	Reference	-0.99	-0.99	---	PASS
			30~1000	-0.99	-67.1	≤-20.99	PASS
			1000~26500	-0.99	-45.3	≤-20.99	PASS
		2437	Reference	-2.67	-2.67	---	PASS
			30~1000	-2.67	-66.59	≤-22.67	PASS
			1000~26500	-2.67	-50.92	≤-22.67	PASS
		2462	Reference	-2.34	-2.34	---	PASS
			30~1000	-2.34	-67.52	≤-22.34	PASS
			1000~26500	-2.34	-42.06	≤-22.34	PASS
11N40SISO	Ant1	2422	Reference	-3.44	-3.44	---	PASS
			30~1000	-3.44	-67.14	≤-23.44	PASS
			1000~26500	-3.44	-46.72	≤-23.44	PASS
		2437	Reference	-4.52	-4.52	---	PASS
			30~1000	-4.52	-67.26	≤-24.52	PASS
			1000~26500	-4.52	-46.18	≤-24.52	PASS
		2452	Reference	-3.88	-3.88	---	PASS
			30~1000	-3.88	-65.77	≤-23.88	PASS
			1000~26500	-3.88	-42.69	≤-23.88	PASS

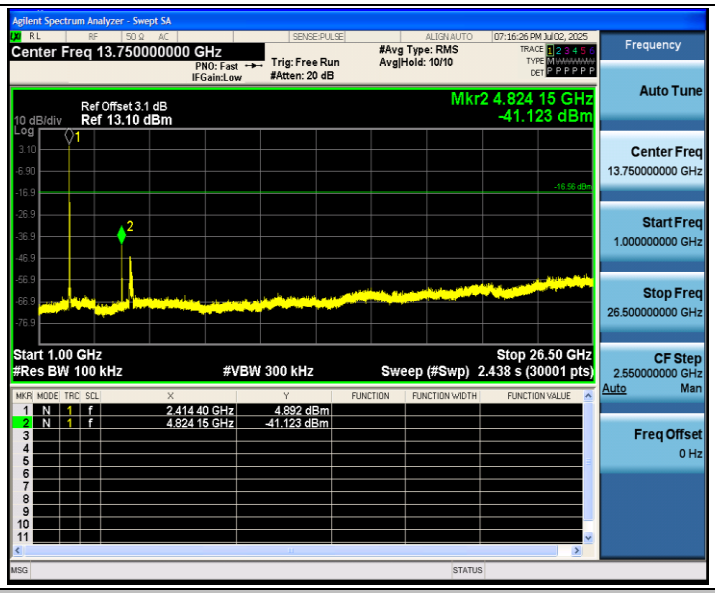
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

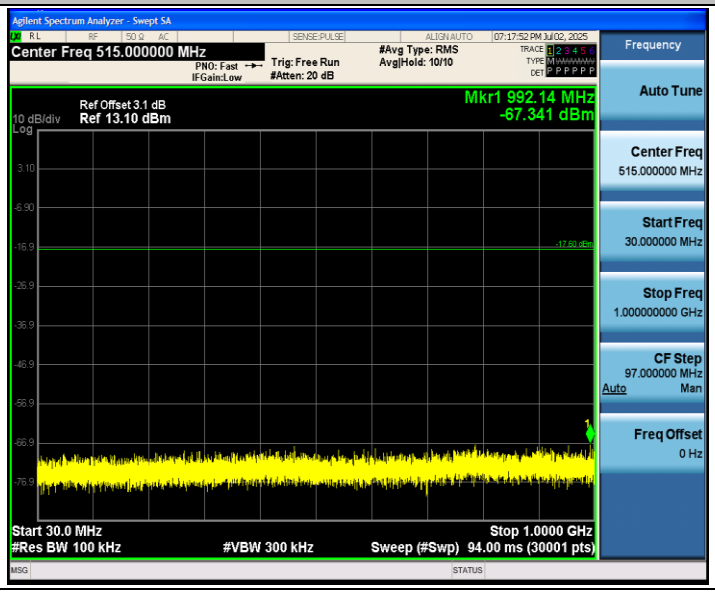


11B_Ant1_2412_1000~26500

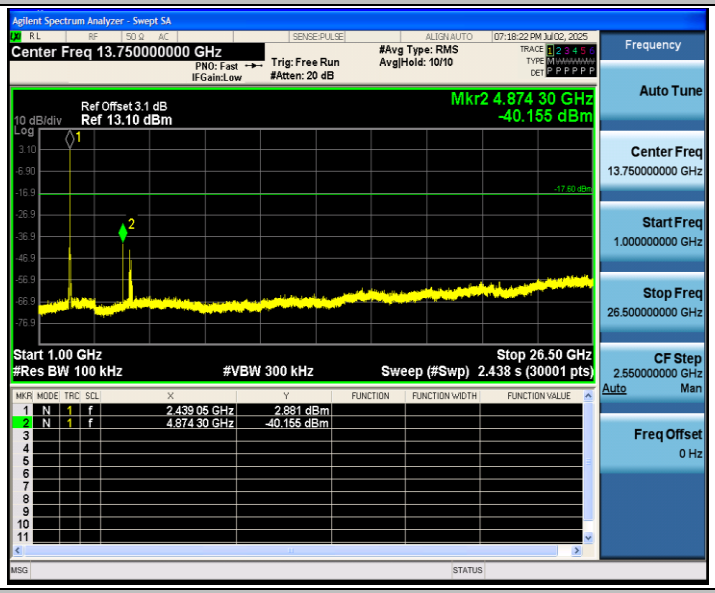


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

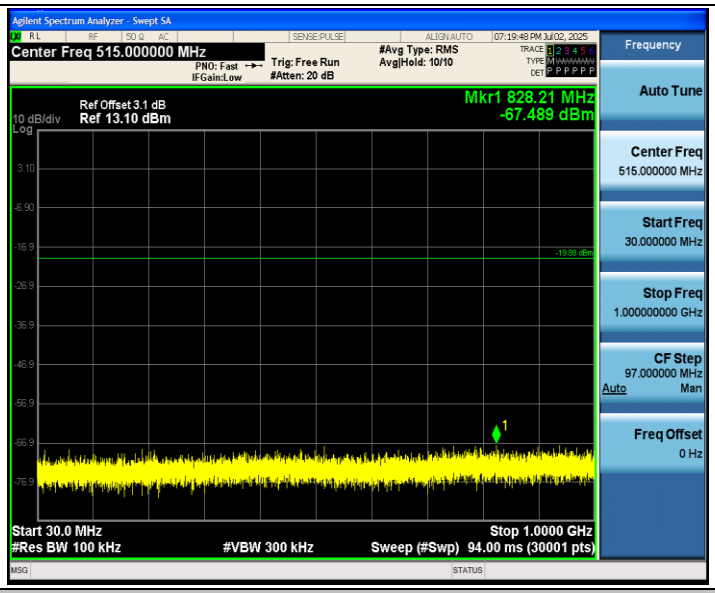


11B_Ant1_2437_1000~26500

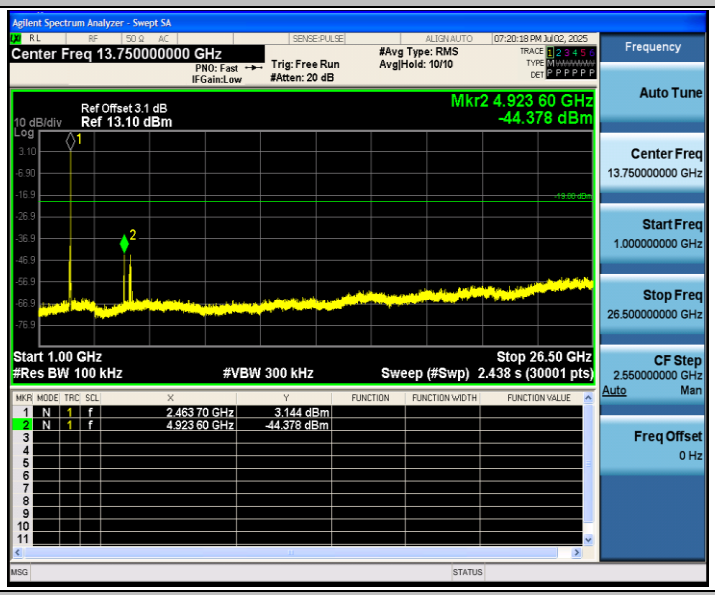


11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000

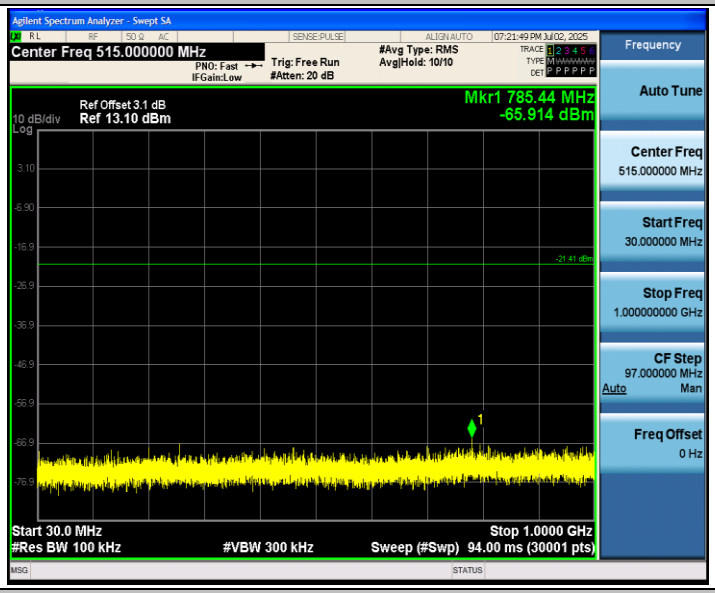


11B_Ant1_2462_1000~26500

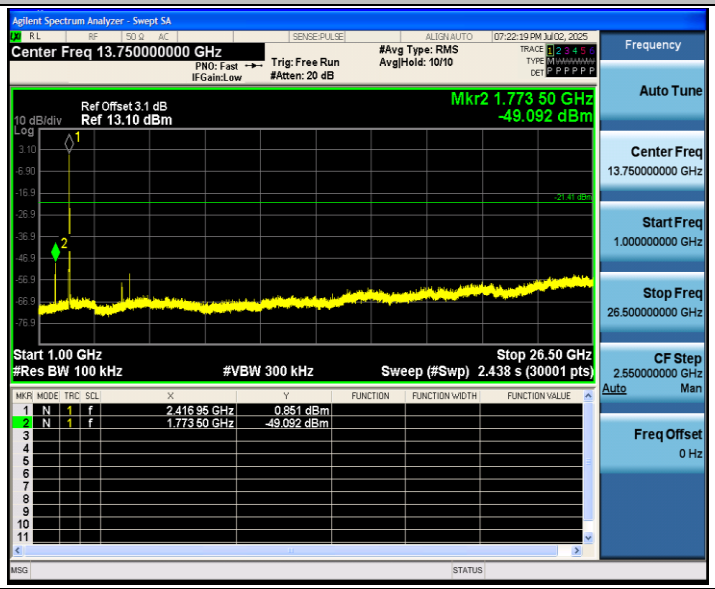


11G_Ant1_2412_0~Reference

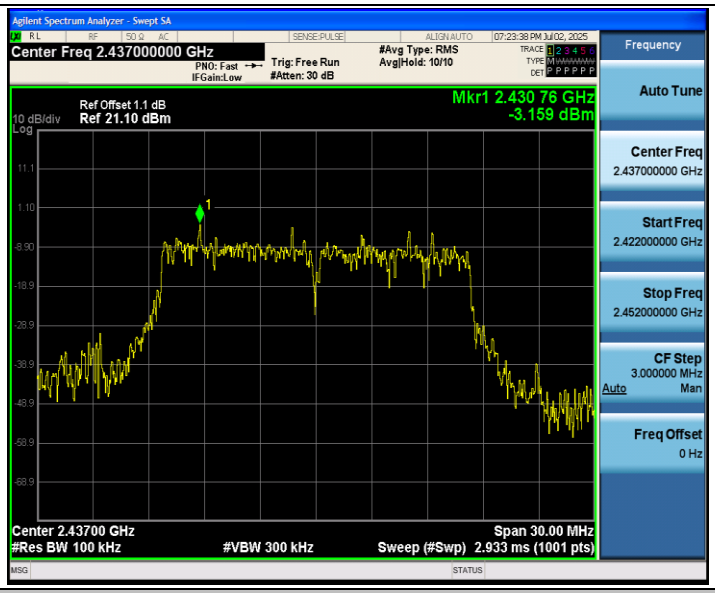
11G_Ant1_2412_30~1000



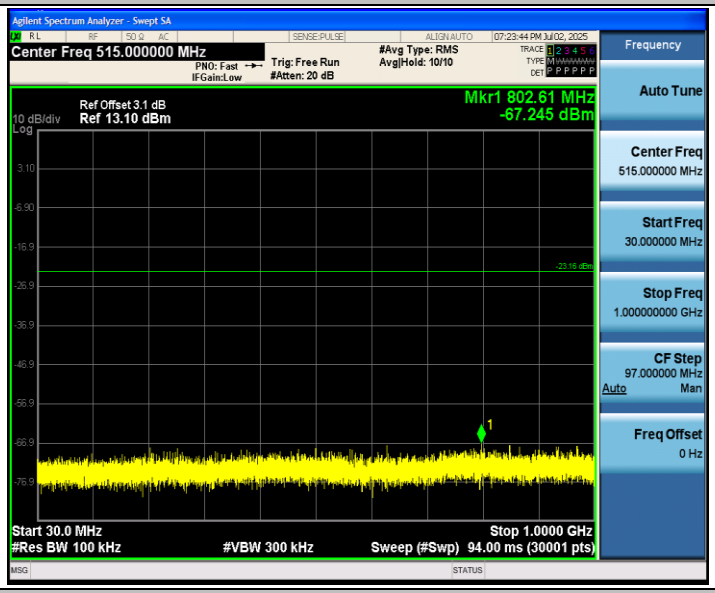
11G_Ant1_2412_1000~26500



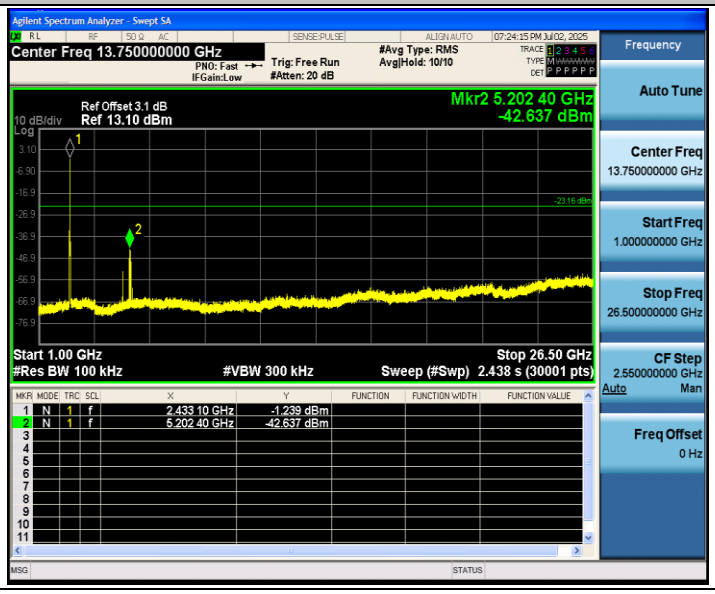
11G_Ant1_2437_0~Reference



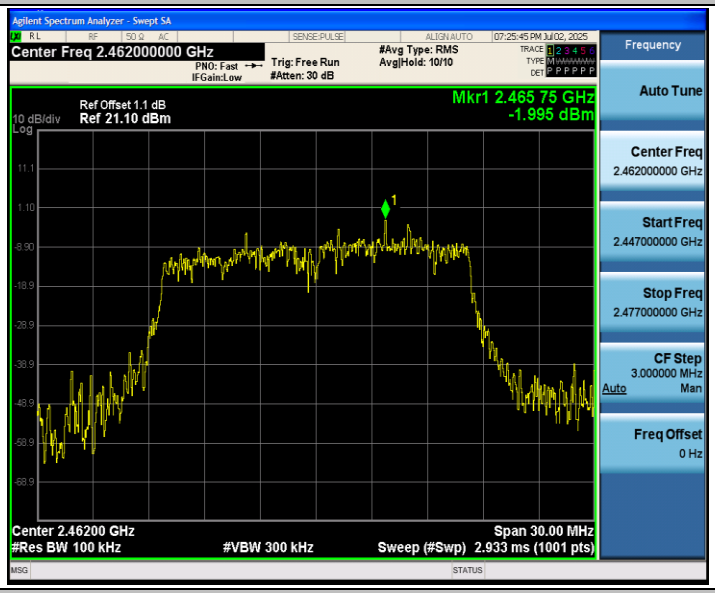
11G_Ant1_2437_30~1000



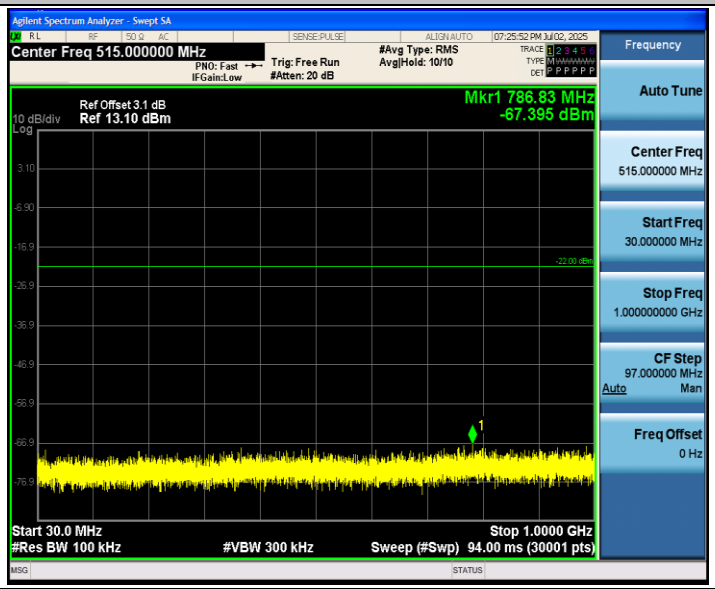
11G_Ant1_2437_1000~26500



11G_Ant1_2462_0~Reference



11G_Ant1_2462_30~1000



11G_Ant1_2462_1000~26500