FCC Appendix RF Test Data

FCC ID	**:**	**2BP5V-ZK101**
Company:	**:**	**Dong Guan Zhen Ke Technology Co., LTD**
EUT	**:**	**Weather Station**
Model Number	**:**	**SA6**
Report No.	**:**	**CTA25052800102**
Reviewed By	**:**	**Eric Wang**

Appendix A: DTS Bandwidth

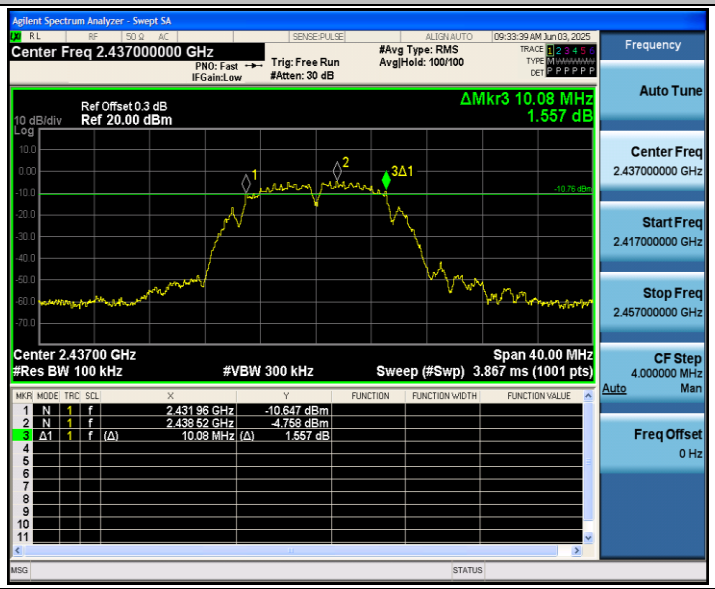
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.040	2407.960	2417.000	0.5	PASS
		2437	10.080	2431.960	2442.040	0.5	PASS
		2462	9.040	2457.960	2467.000	0.5	PASS
11G	Ant1	2412	15.760	2403.840	2419.600	0.5	PASS
		2437	15.720	2429.440	2445.160	0.5	PASS
		2462	15.720	2453.840	2469.560	0.5	PASS
11N20SISO	Ant1	2412	16.160	2403.640	2419.800	0.5	PASS
		2437	15.600	2429.480	2445.080	0.5	PASS
		2462	16.160	2453.400	2469.560	0.5	PASS
11N40SISO	Ant1	2422	35.840	2404.240	2440.080	0.5	PASS
		2437	35.040	2419.480	2454.520	0.5	PASS
		2452	30.160	2434.400	2464.560	0.5	PASS

Test Graphs

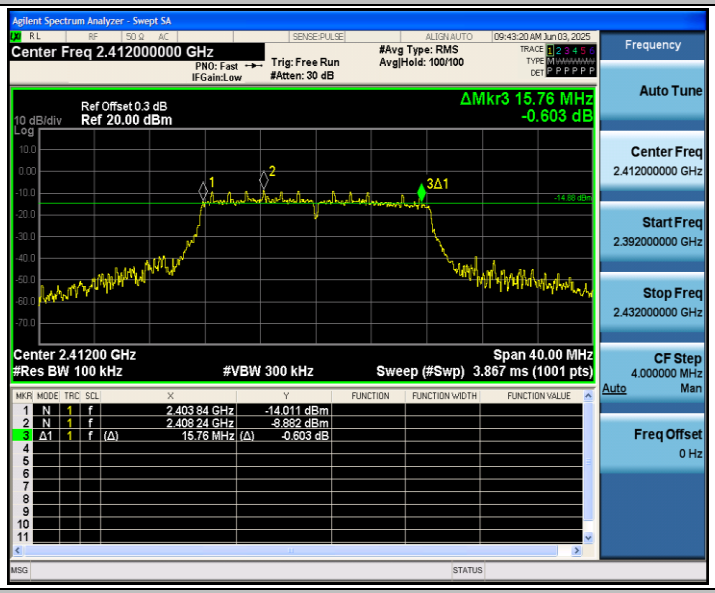
11B_Ant1_2412

11B_Ant1_2437

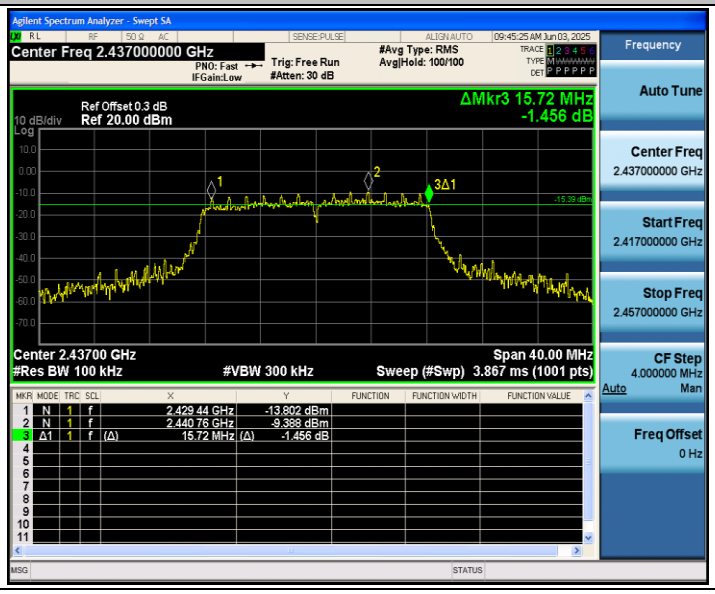


11B_Ant1_2462

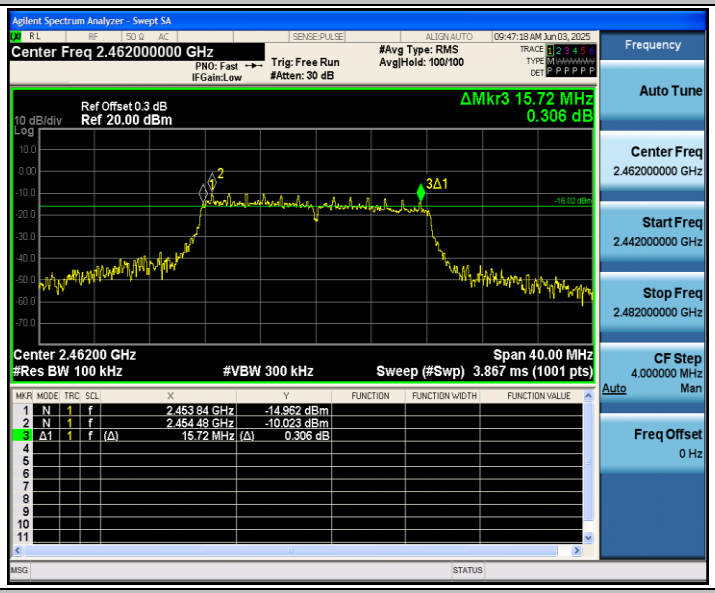
11G_Ant1_2412



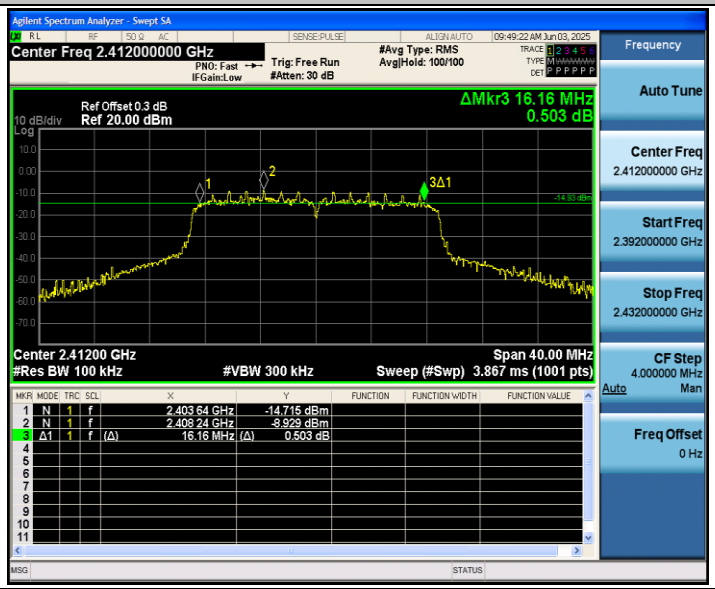
11G_Ant1_2437



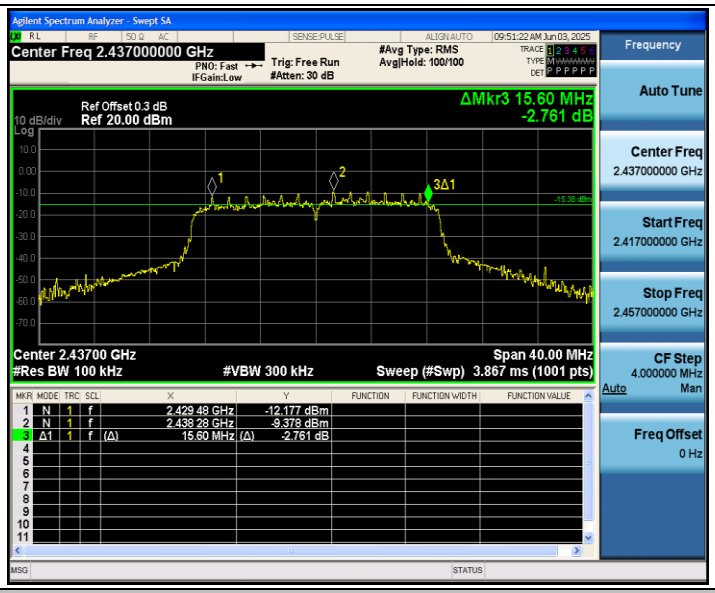
11G_Ant1_2462



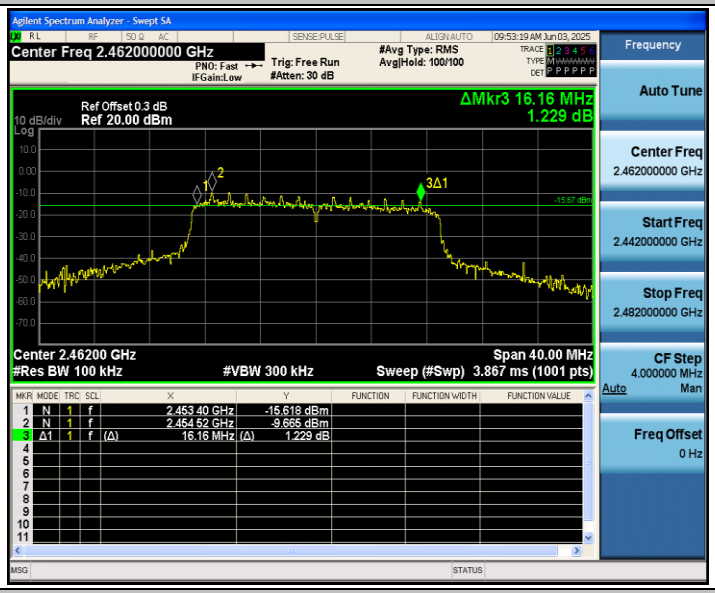
11N20SISO_Ant1_2412



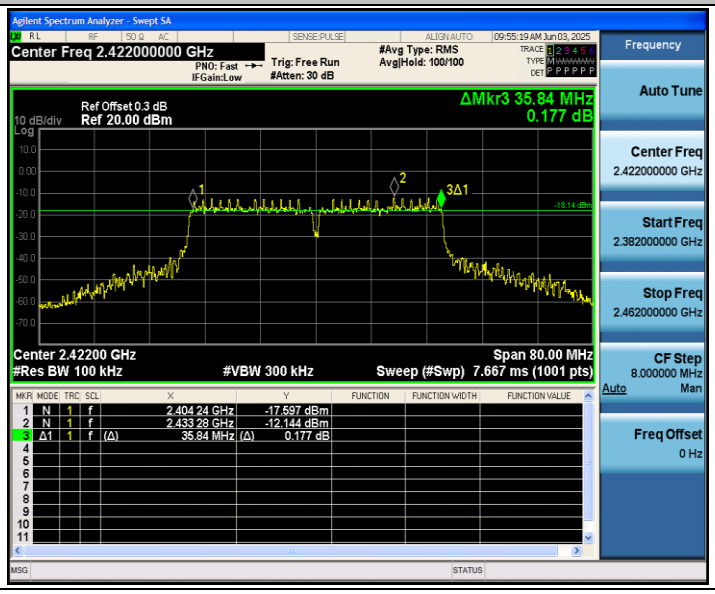
11N20SISO_Ant1_2437

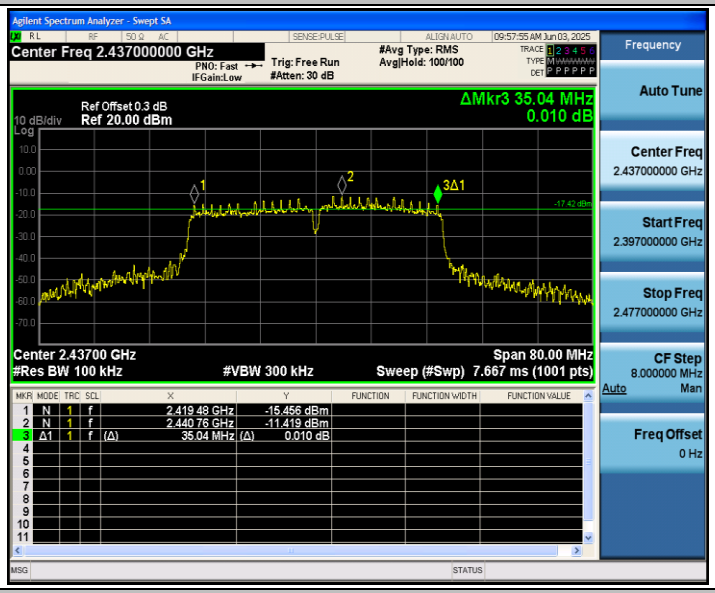


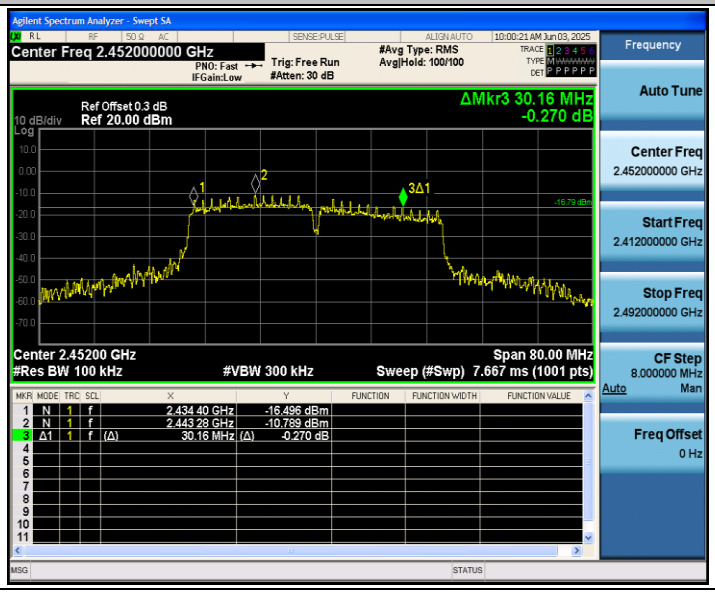
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


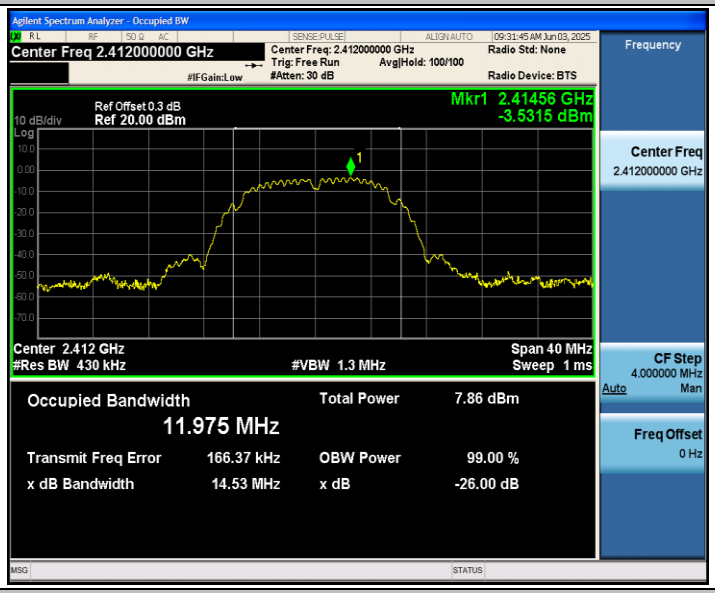
Appendix B: Occupied Channel Bandwidth

Test Result

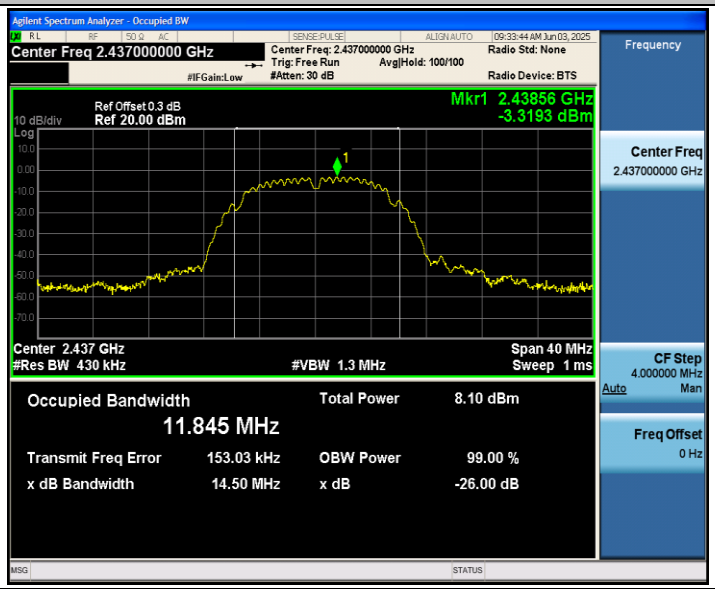
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.975	2406.1789	2418.1539	---	---
		2437	11.845	2431.2305	2443.0755	---	---
		2462	11.995	2456.1599	2468.1549	---	---
11G	Ant1	2412	16.610	2403.6526	2420.2626	---	---
		2437	16.618	2428.7973	2445.4153	---	---
		2462	16.735	2453.5060	2470.2410	---	---
11N20SISO	Ant1	2412	17.648	2403.1630	2420.8110	---	---
		2437	17.594	2428.3339	2445.9279	---	---
		2462	17.798	2452.9760	2470.7740	---	---
11N40SISO	Ant1	2422	36.469	2403.9078	2440.3768	---	---
		2437	35.905	2419.1393	2455.0443	---	---
		2452	35.868	2433.9124	2469.7804	---	---

Test Graphs

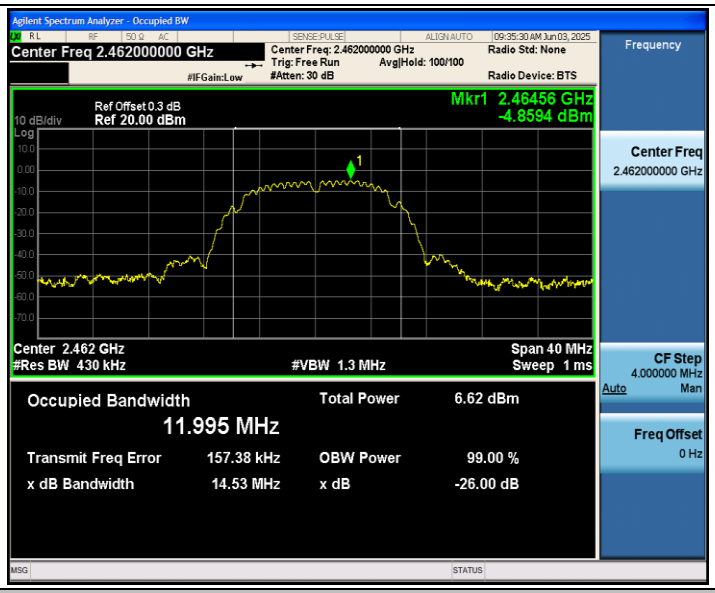
11B_Ant1_2412



11B_Ant1_2437

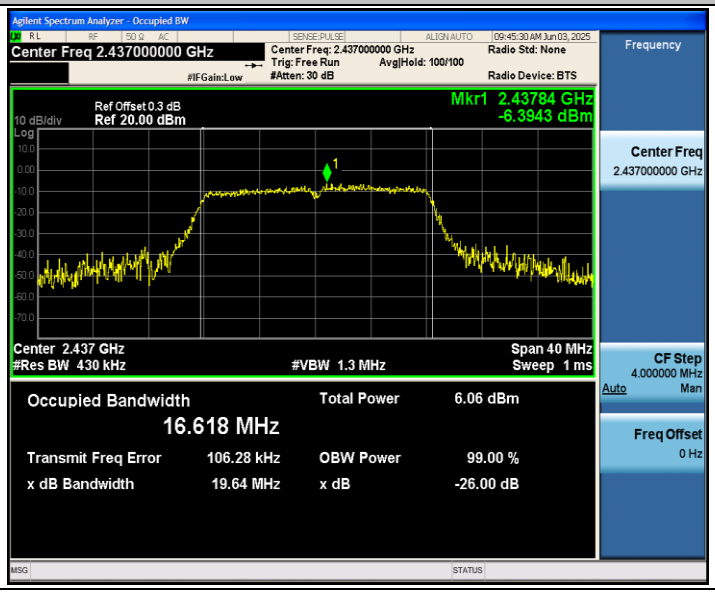


11B_Ant1_2462



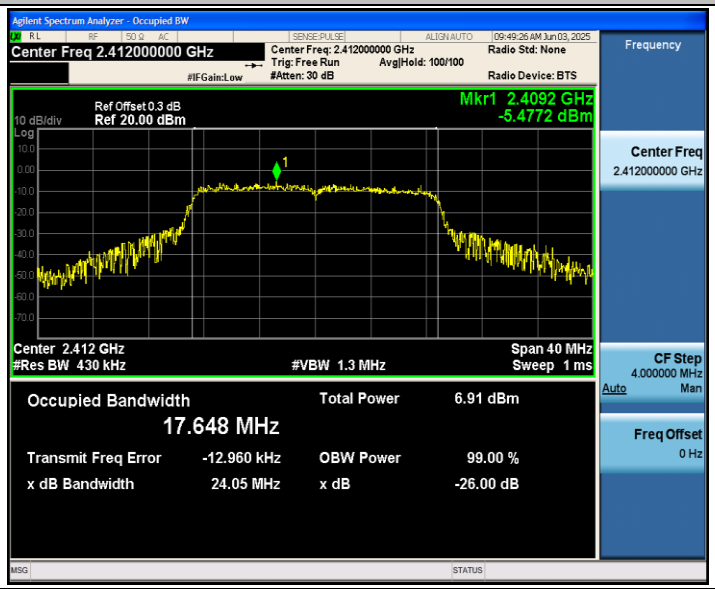
11G_Ant1_2412

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

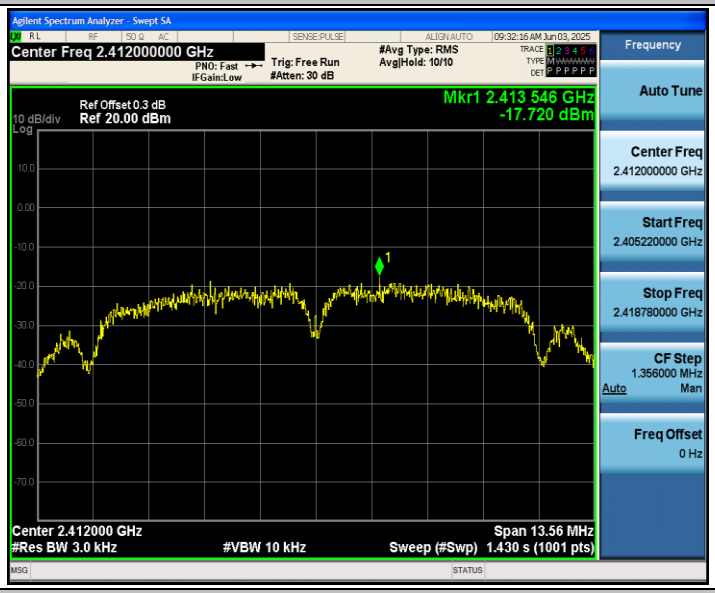
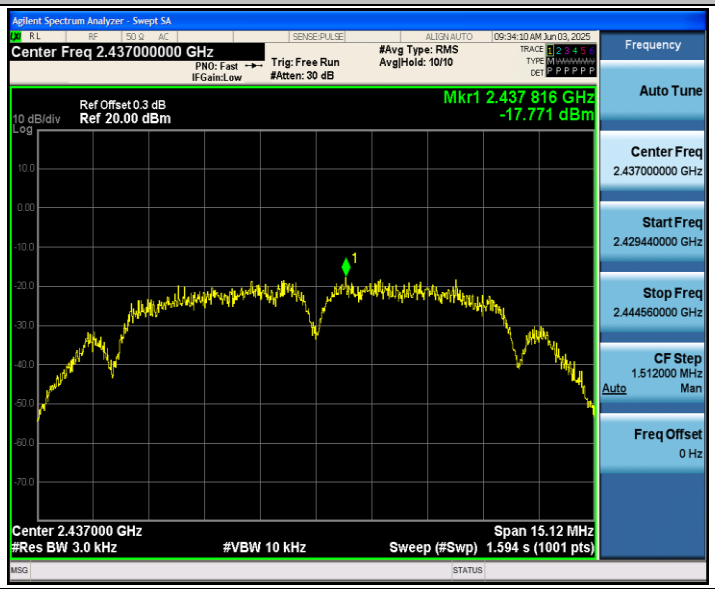
Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	7.63	≤30.00	PASS
		2437	8.11	≤30.00	PASS
		2462	6.38	≤30.00	PASS
11G	Ant1	2412	7.62	≤30.00	PASS
		2437	6.65	≤30.00	PASS
		2462	5.70	≤30.00	PASS
11N20SISO	Ant1	2412	7.49	≤30.00	PASS
		2437	6.61	≤30.00	PASS
		2462	5.85	≤30.00	PASS
11N40SISO	Ant1	2422	7.28	≤30.00	PASS
		2437	6.73	≤30.00	PASS
		2452	6.69	≤30.00	PASS

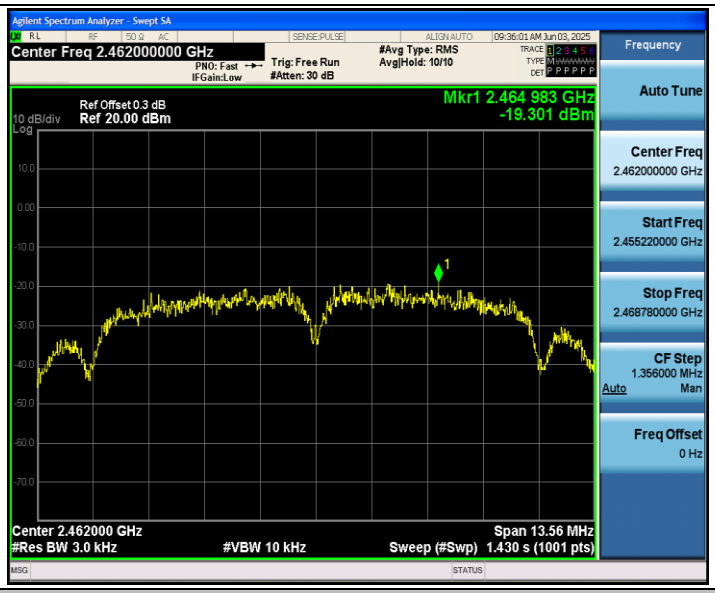
Appendix D: Maximum power spectral density

Test Result

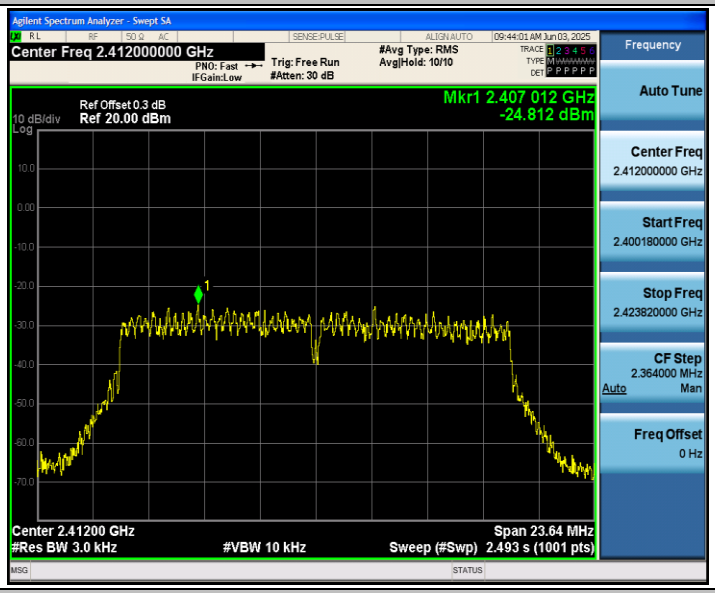
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-17.72	≤8.00	PASS
		2437	-17.77	≤8.00	PASS
		2462	-19.30	≤8.00	PASS
11G	Ant1	2412	-24.81	≤8.00	PASS
		2437	-25.58	≤8.00	PASS
		2462	-25.69	≤8.00	PASS
11N20SISO	Ant1	2412	-25.15	≤8.00	PASS
		2437	-24.61	≤8.00	PASS
		2462	-26.02	≤8.00	PASS
11N40SISO	Ant1	2422	-27.61	≤8.00	PASS
		2437	-27.90	≤8.00	PASS
		2452	-26.56	≤8.00	PASS

Test Graphs

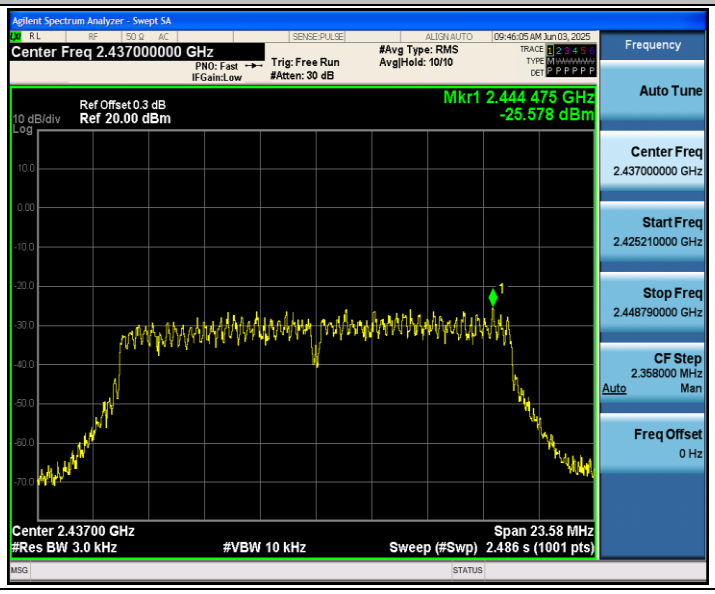
11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462



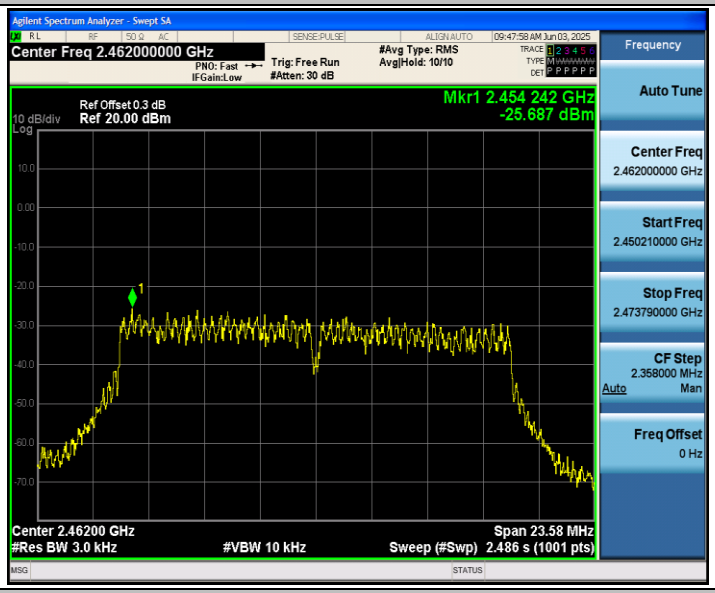
11G_Ant1_2412



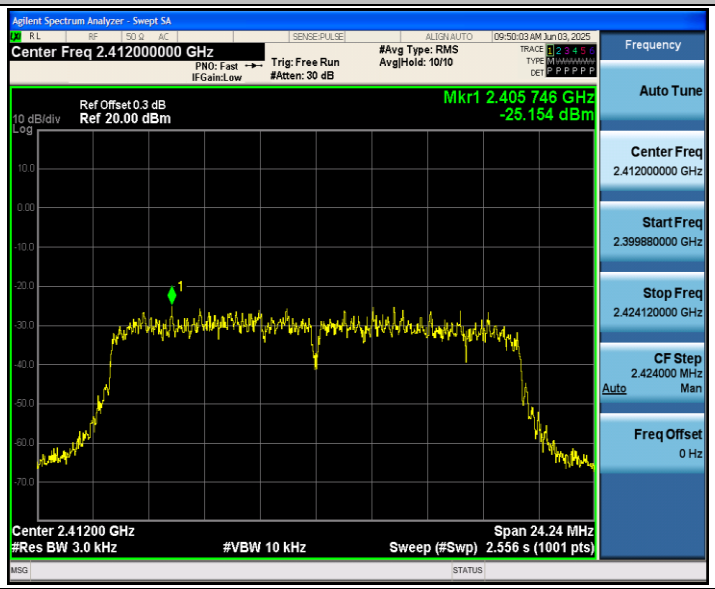
11G_Ant1_2437



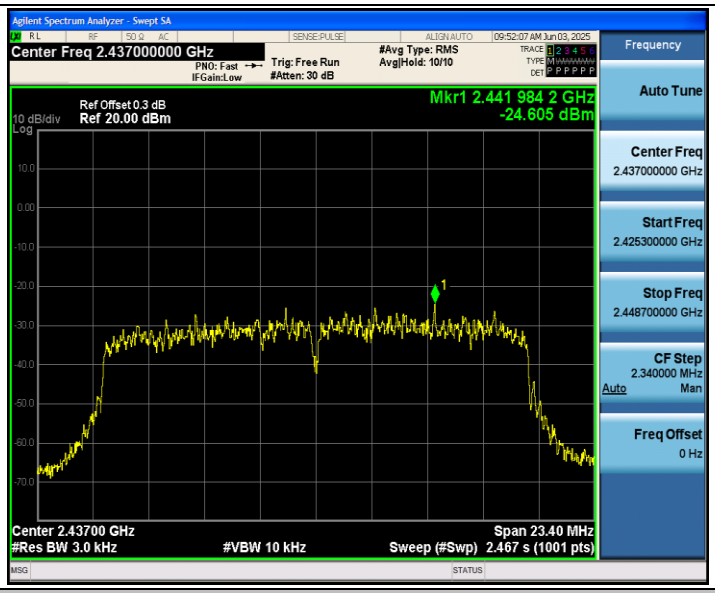
11G_Ant1_2462



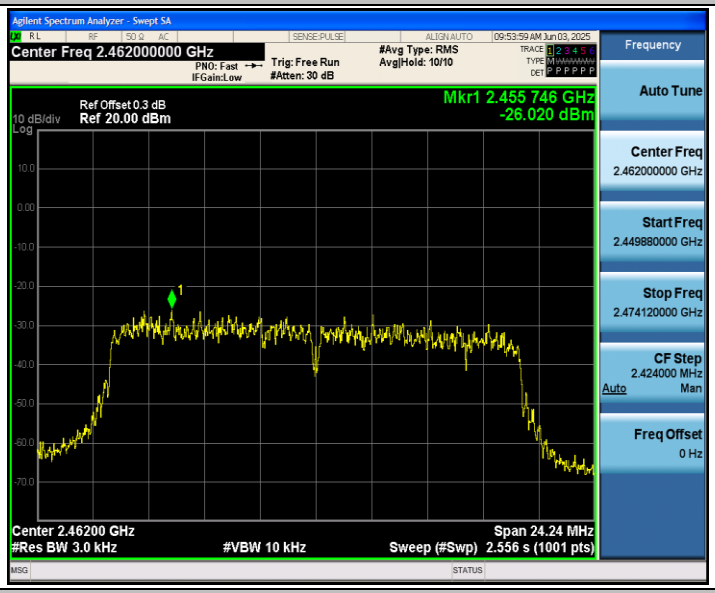
11N20SISO_Ant1_2412



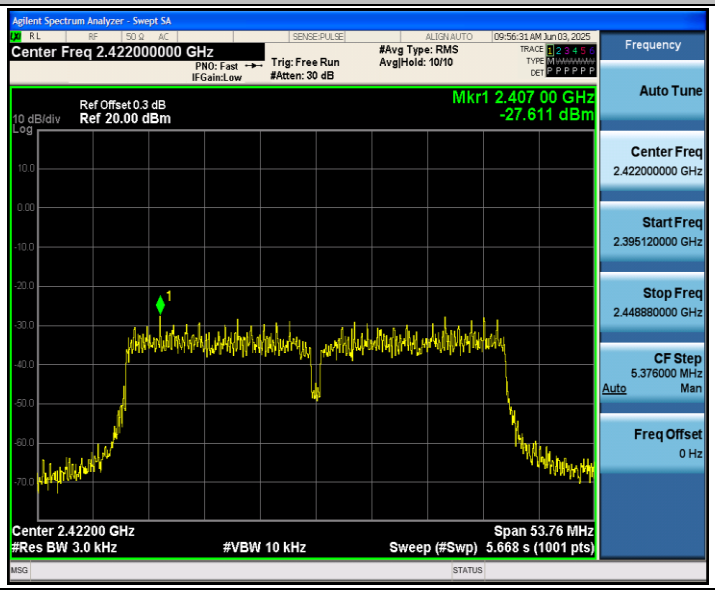
11N20SISO_Ant1_2437

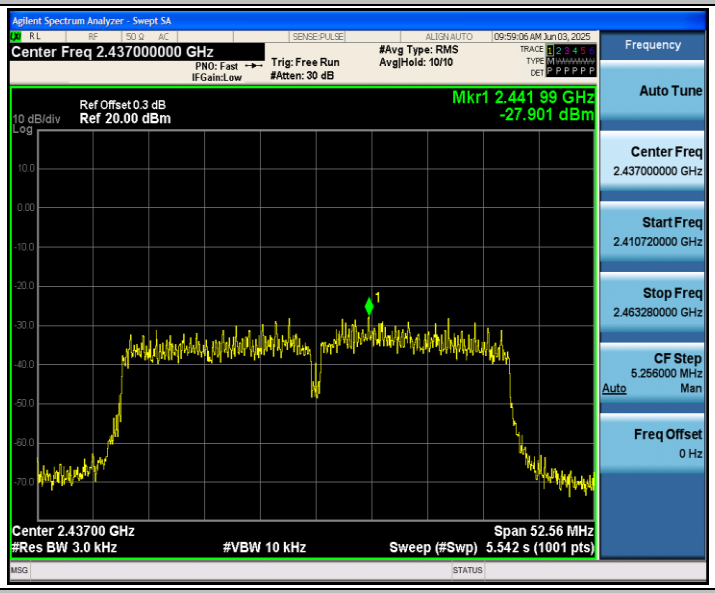


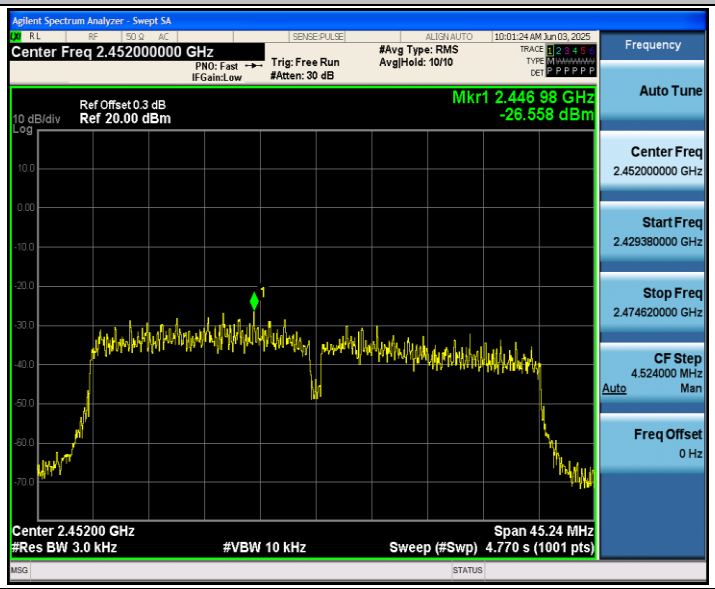
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


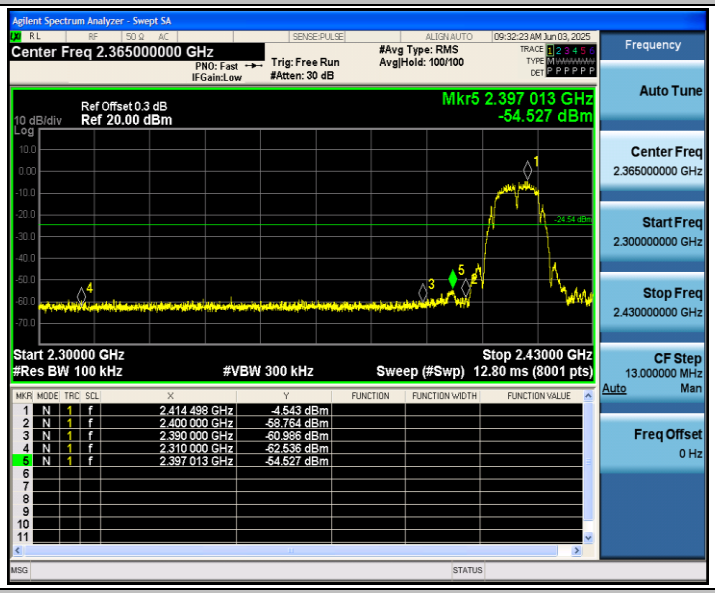
Appendix E: Band edge measurements

Test Result

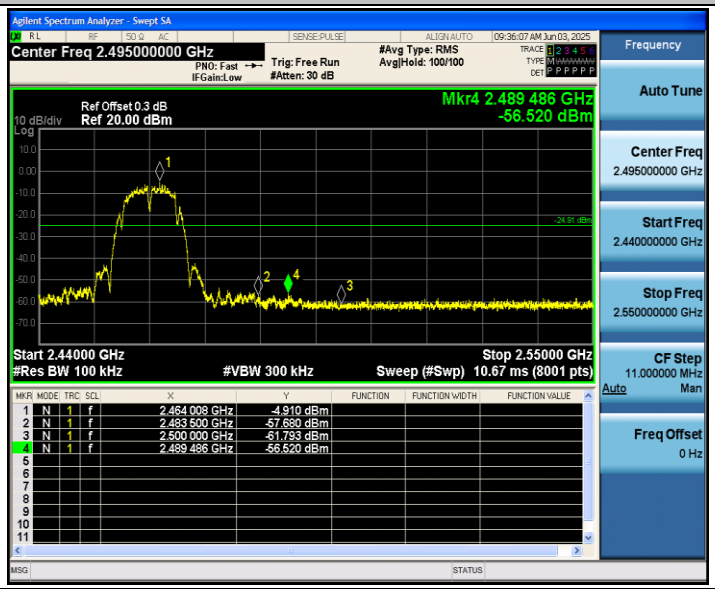
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-4.54	-54.53	≤-24.54	PASS
		High	2462	-4.91	-56.52	≤-24.91	PASS
11G	Ant1	Low	2412	-8.97	-41.77	≤-28.97	PASS
		High	2462	-9.69	-52.98	≤-29.69	PASS
11N20SISO	Ant1	Low	2412	-9.04	-42.26	≤-29.04	PASS
		High	2462	-9.88	-53.6	≤-29.88	PASS
11N40SISO	Ant1	Low	2422	-12.21	-43.22	≤-32.21	PASS
		High	2452	-10.86	-49.16	≤-30.86	PASS

Test Graphs

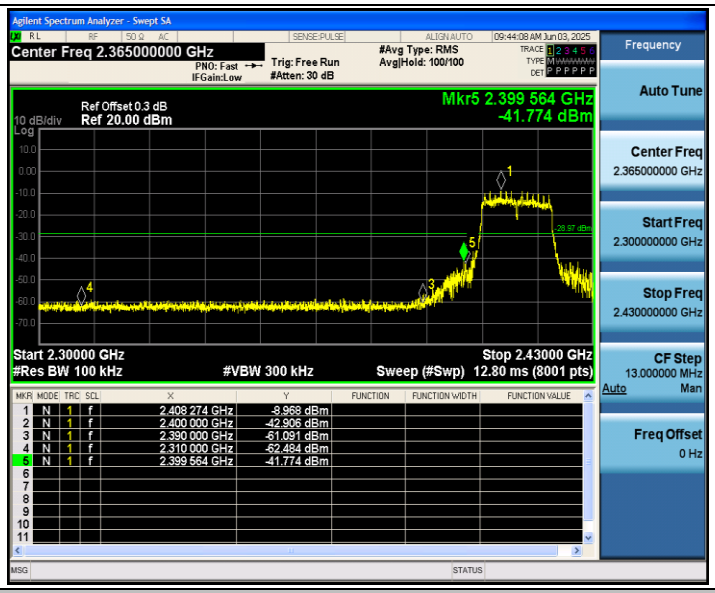
11B_Ant1_Low_2412



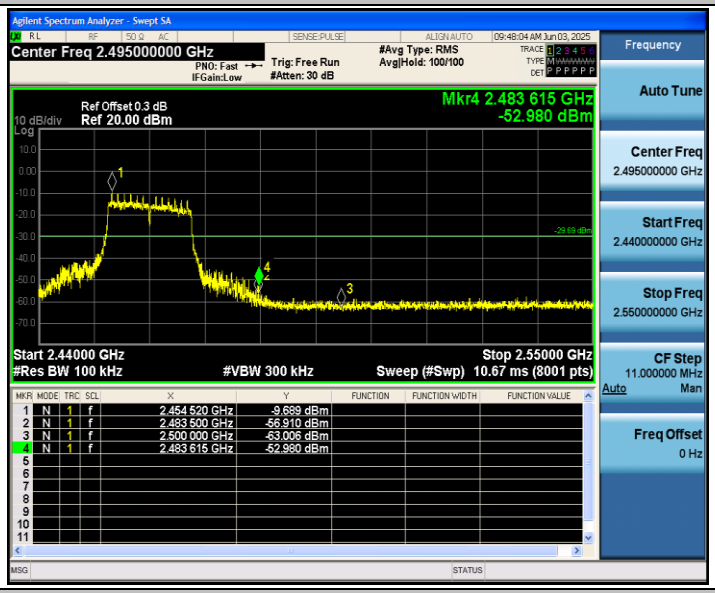
11B_Ant1_High_2462



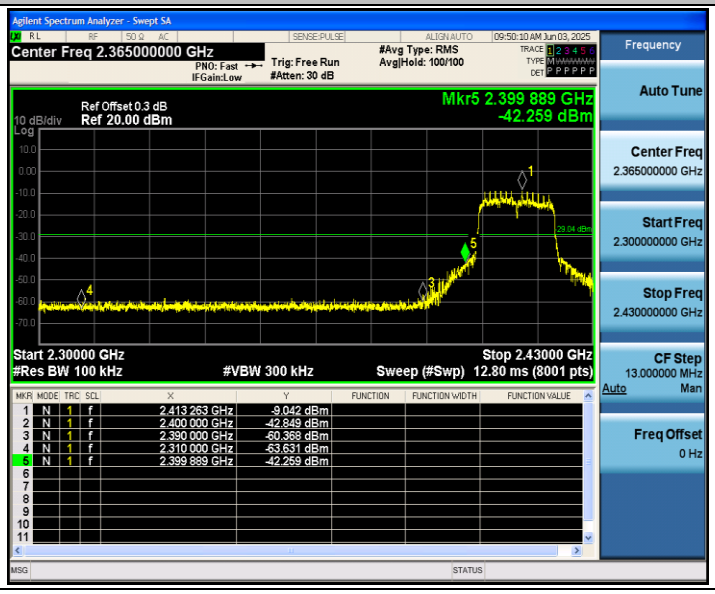
11G_Ant1_Low_2412



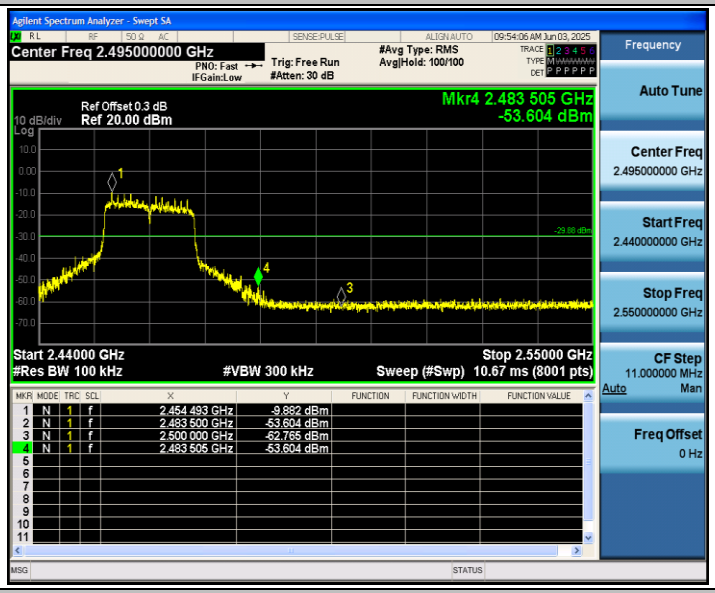
11G_Ant1_High_2462



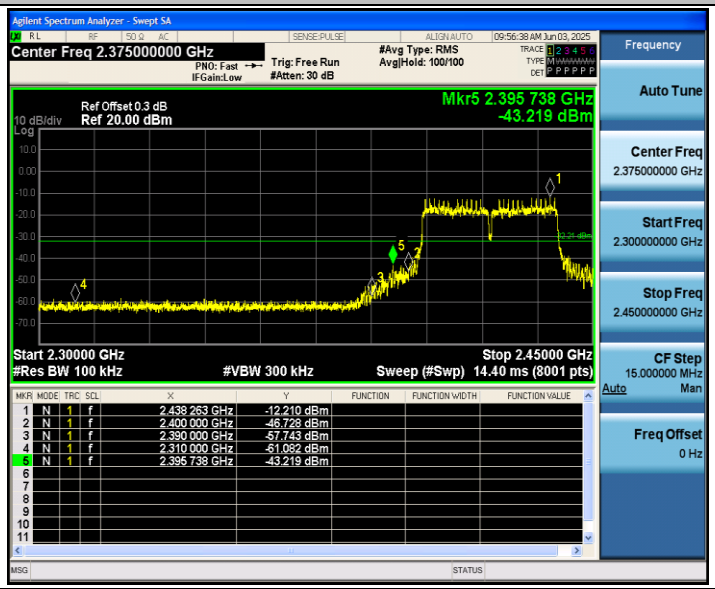
11N20SISO_Ant1_Low_2412



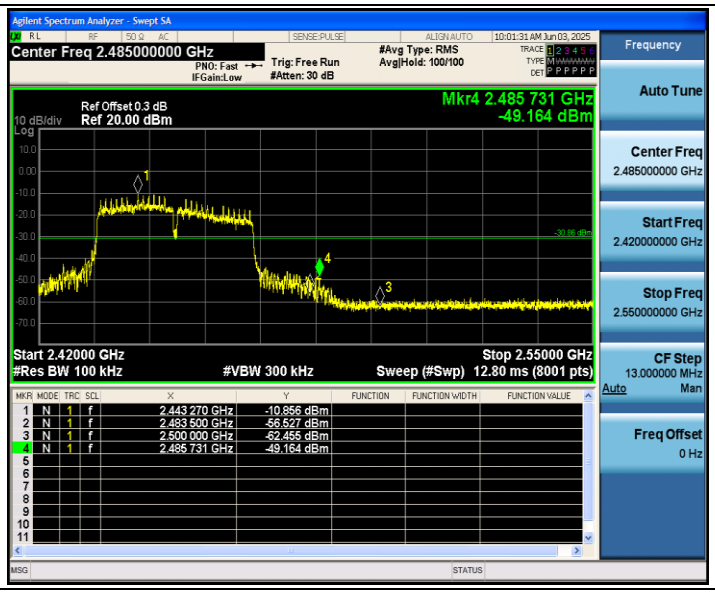
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452

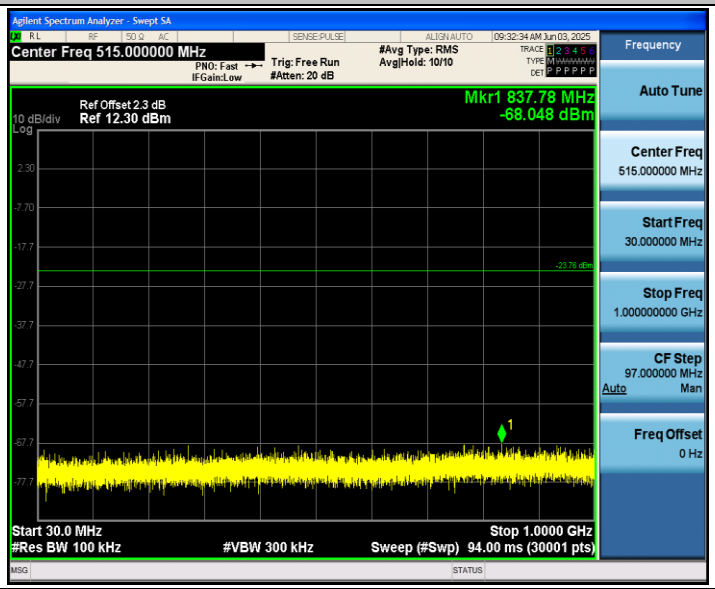

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.485000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
10:01:31 AM Jun 03, 2025
Ref Offset 0.3 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.485 731 GHz
-49.164 dBm
Start 2.42000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep (#Swp) 12.80 ms (8001 pts)
1 N 1 f 2.443 270 GHz -10.856 dBm
2 N 1 f 2.483 500 GHz -56.527 dBm
3 N 1 f 2.500 000 GHz -62.455 dBm
4 N 1 f 2.485 731 GHz -49.164 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

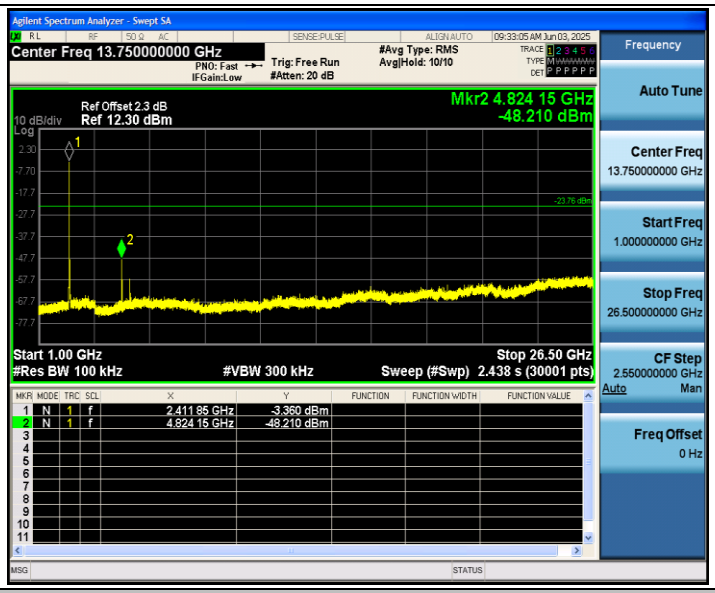
Appendix F: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-3.76	-3.76	---	PASS
			30~1000	-3.76	-68.05	≤-23.76	PASS
			1000~26500	-3.76	-48.21	≤-23.76	PASS
		2437	Reference	-5.75	-5.75	---	PASS
			30~1000	-5.75	-67.93	≤-25.75	PASS
			1000~26500	-5.75	-46.94	≤-25.75	PASS
		2462	Reference	-7.38	-7.38	---	PASS
			30~1000	-7.38	-66.52	≤-27.38	PASS
			1000~26500	-7.38	-41.64	≤-27.38	PASS
11G	Ant1	2412	Reference	-9.02	-9.02	---	PASS
			30~1000	-9.02	-67.56	≤-29.02	PASS
			1000~26500	-9.02	-50.95	≤-29.02	PASS
		2437	Reference	-9.59	-9.59	---	PASS
			30~1000	-9.59	-67.71	≤-29.59	PASS
			1000~26500	-9.59	-54.37	≤-29.59	PASS
		2462	Reference	-10.06	-10.06	---	PASS
			30~1000	-10.06	-67.6	≤-30.06	PASS
			1000~26500	-10.06	-53.54	≤-30.06	PASS
11N20SISO	Ant1	2412	Reference	-9.48	-9.48	---	PASS
			30~1000	-9.48	-68.03	≤-29.48	PASS
			1000~26500	-9.48	-54.16	≤-29.48	PASS
		2437	Reference	-11.21	-11.21	---	PASS
			30~1000	-11.21	-68.36	≤-31.21	PASS
			1000~26500	-11.21	-52.32	≤-31.21	PASS
		2462	Reference	-9.94	-9.94	---	PASS
			30~1000	-9.94	-67.75	≤-29.94	PASS
			1000~26500	-9.94	-53.72	≤-29.94	PASS
11N40SISO	Ant1	2422	Reference	-12.20	-12.20	---	PASS
			30~1000	-12.20	-67.43	≤-32.2	PASS
			1000~26500	-12.20	-55.49	≤-32.2	PASS
		2437	Reference	-11.46	-11.46	---	PASS
			30~1000	-11.46	-68.13	≤-31.46	PASS
			1000~26500	-11.46	-50.54	≤-31.46	PASS
		2452	Reference	-11.41	-11.41	---	PASS
			30~1000	-11.41	-67.97	≤-31.41	PASS
			1000~26500	-11.41	-54.29	≤-31.41	PASS

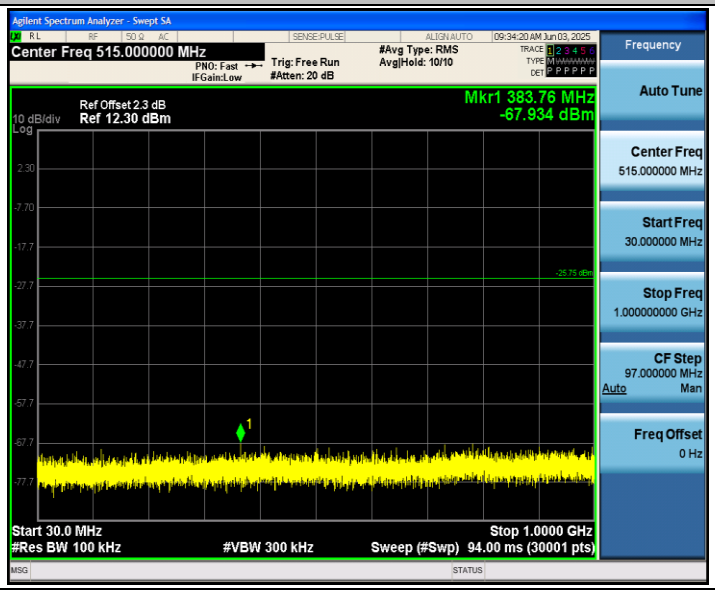
Test Graphs

11B_Ant1_2412_0~Reference
11B_Ant1_2412_30~1000

11B_Ant1_2412_1000~26500

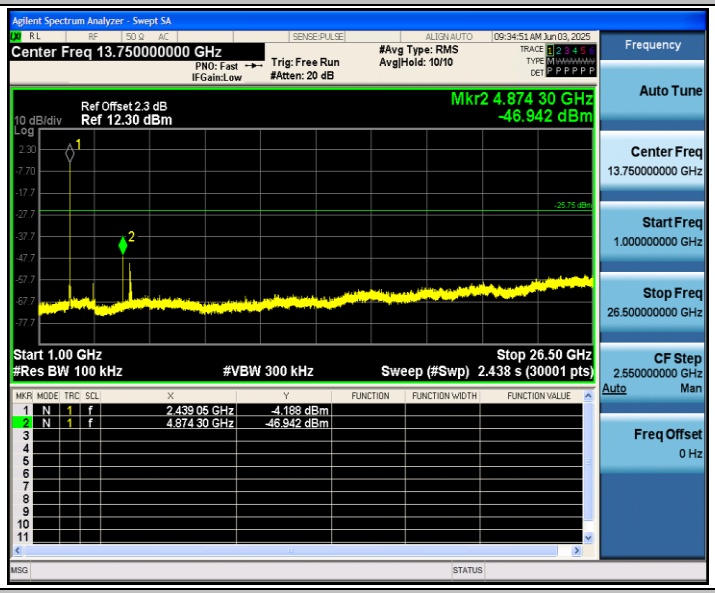


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

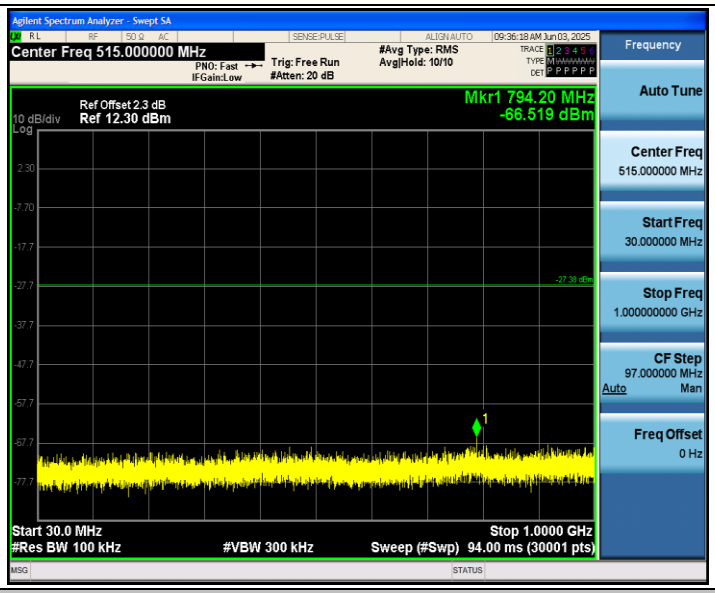


11B_Ant1_2437_1000~26500

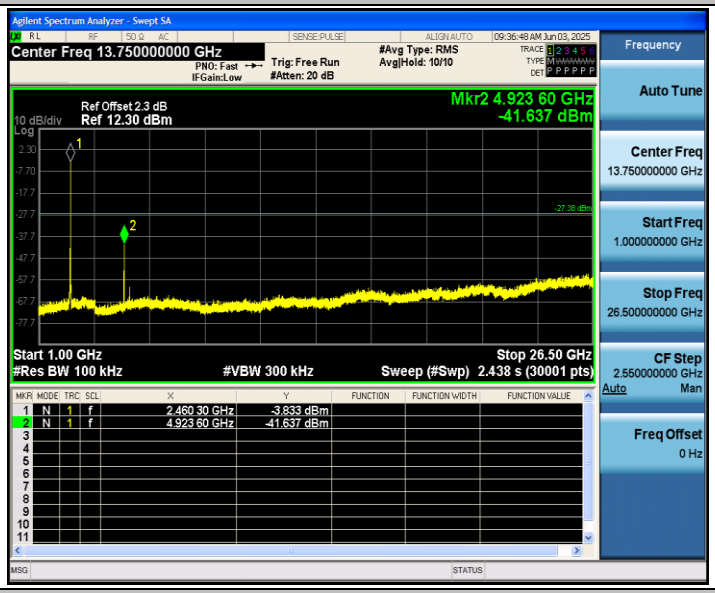


11B_Ant1_2462_0~Reference

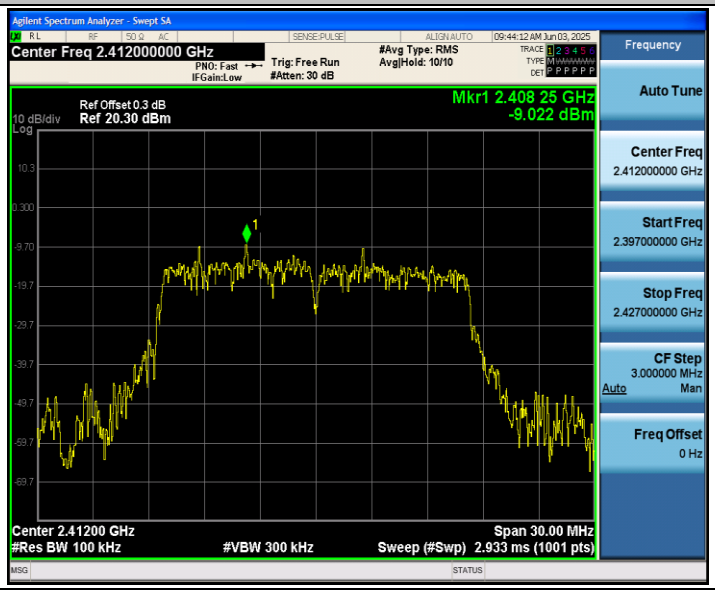
11B_Ant1_2462_30~1000



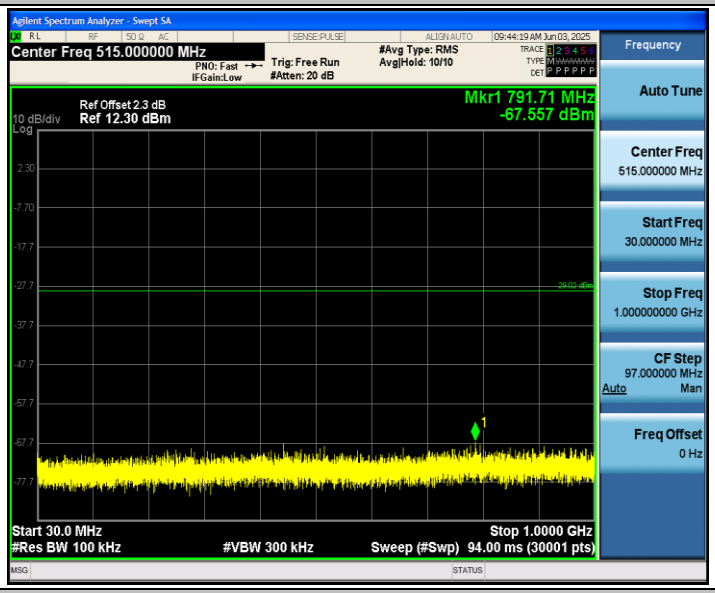
11B_Ant1_2462_1000~26500



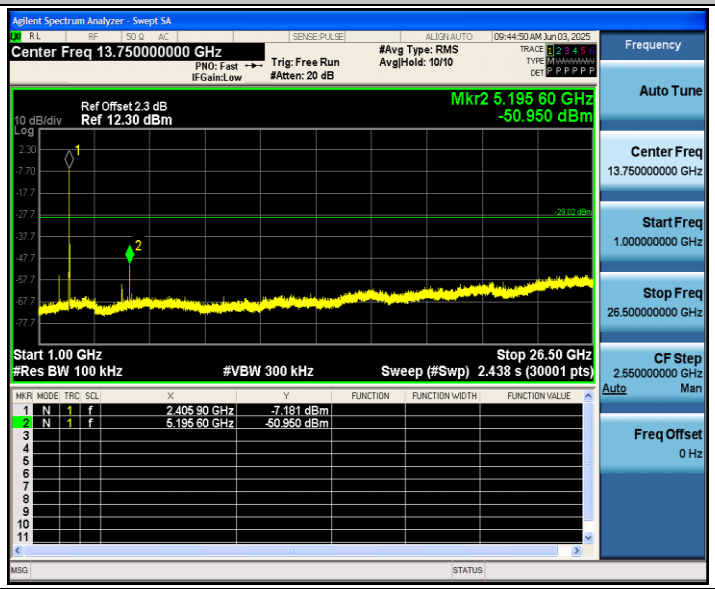
11G_Ant1_2412_0~Reference



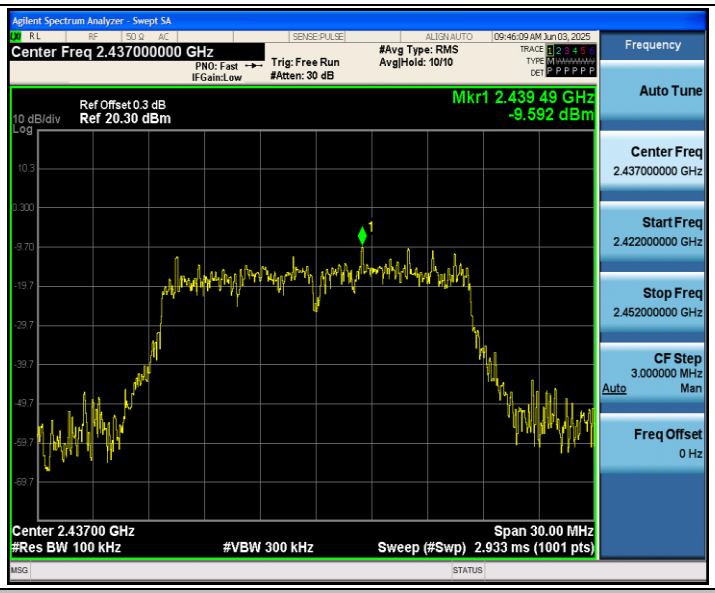
11G_Ant1_2412_30~1000



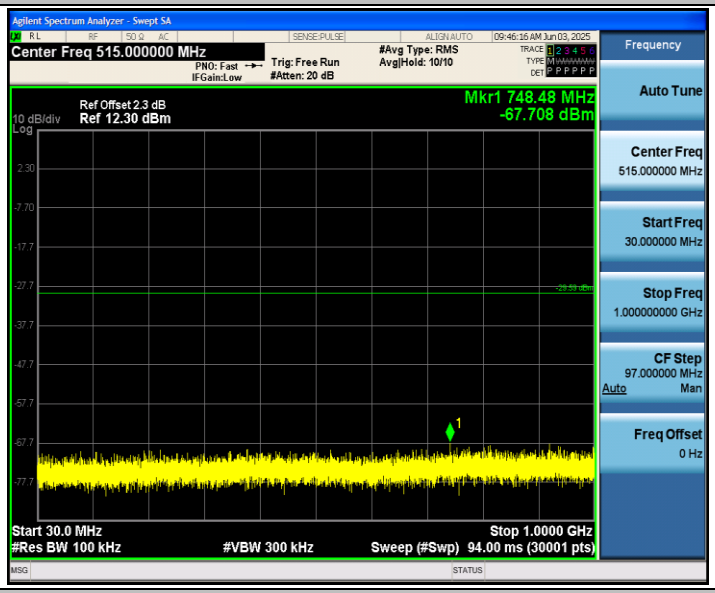
11G_Ant1_2412_1000~26500



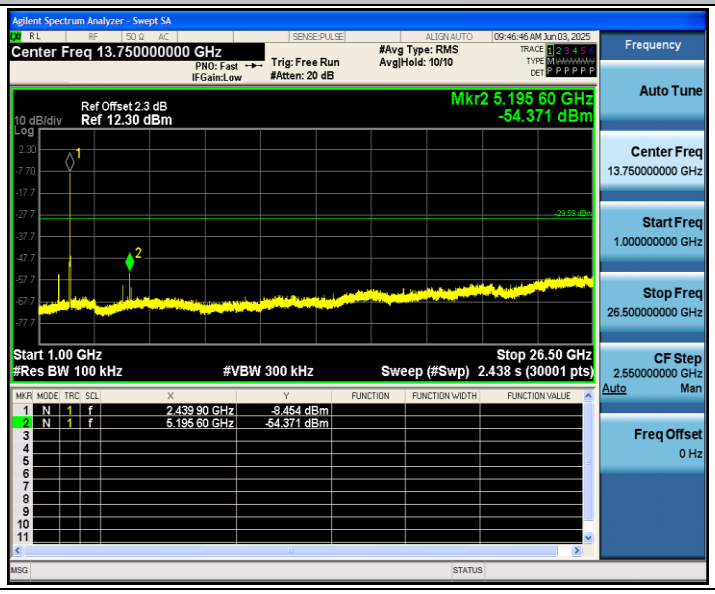
11G_Ant1_2437_0~Reference



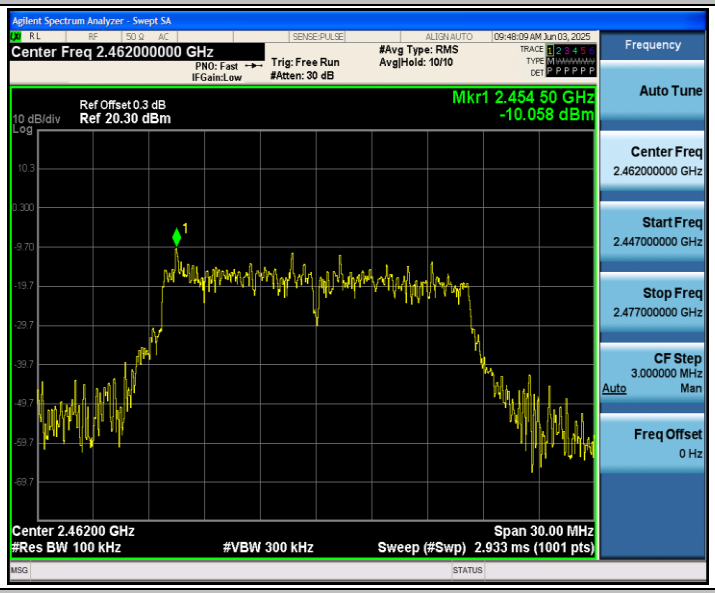
11G_Ant1_2437_30~1000



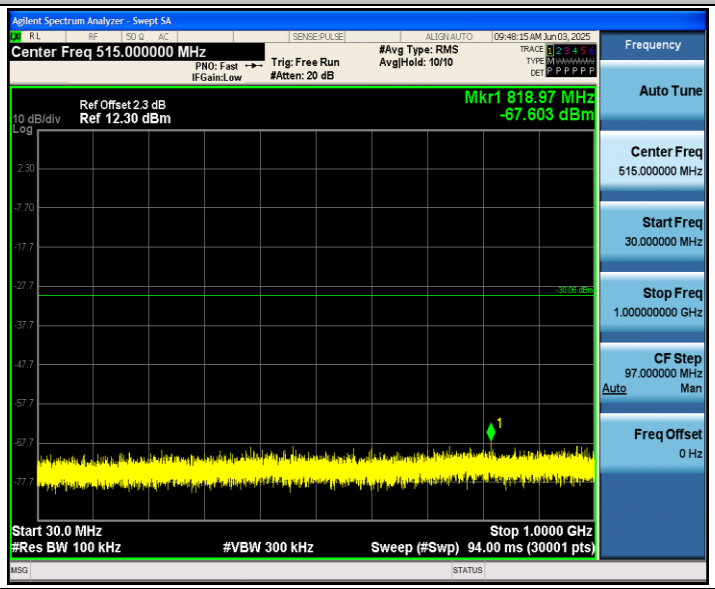
11G_Ant1_2437_1000~26500



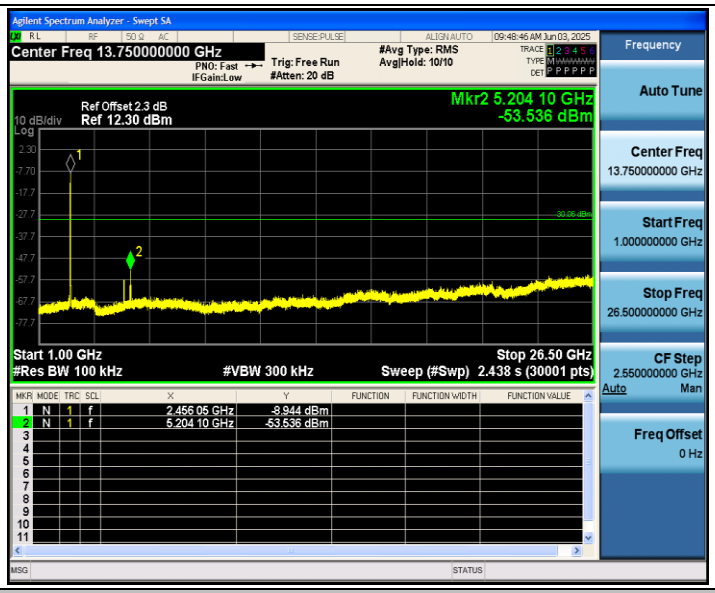
11G_Ant1_2462_0~Reference



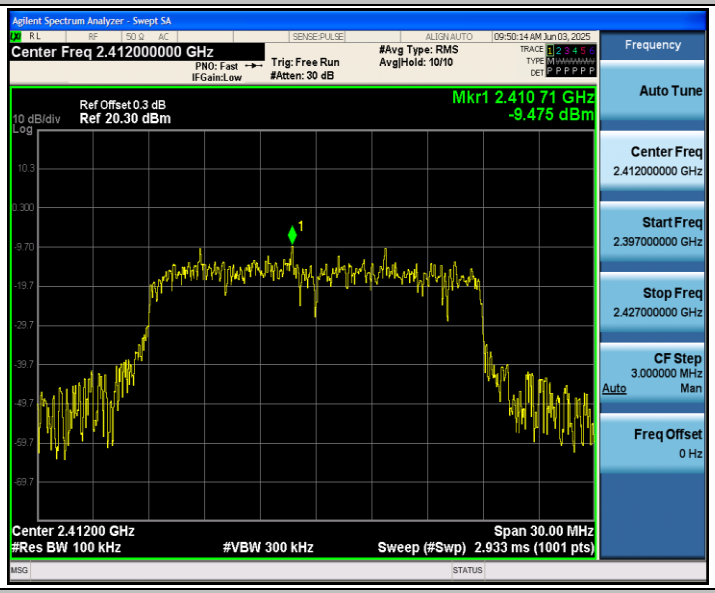
11G_Ant1_2462_30~1000



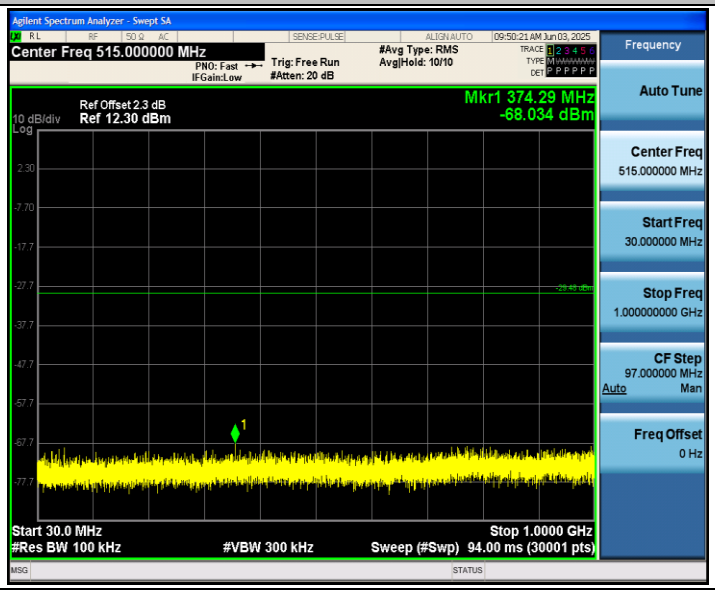
11G_Ant1_2462_1000~26500



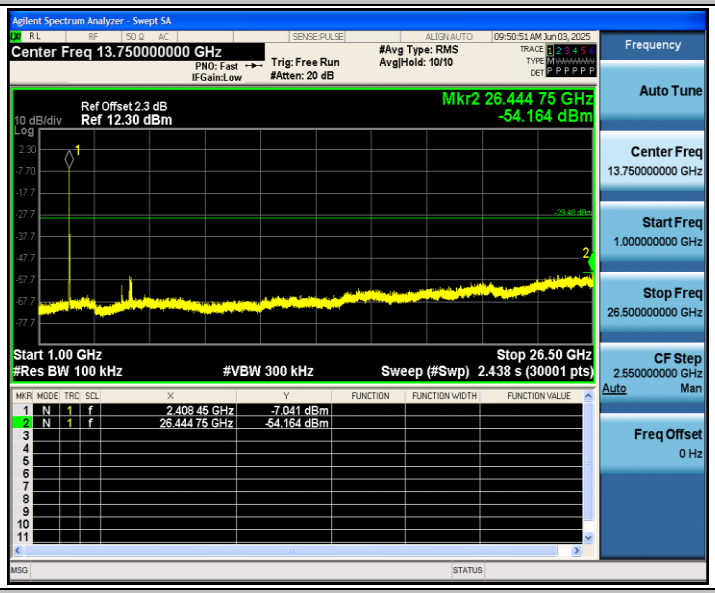
11N20SISO_Ant1_2412_0~Reference



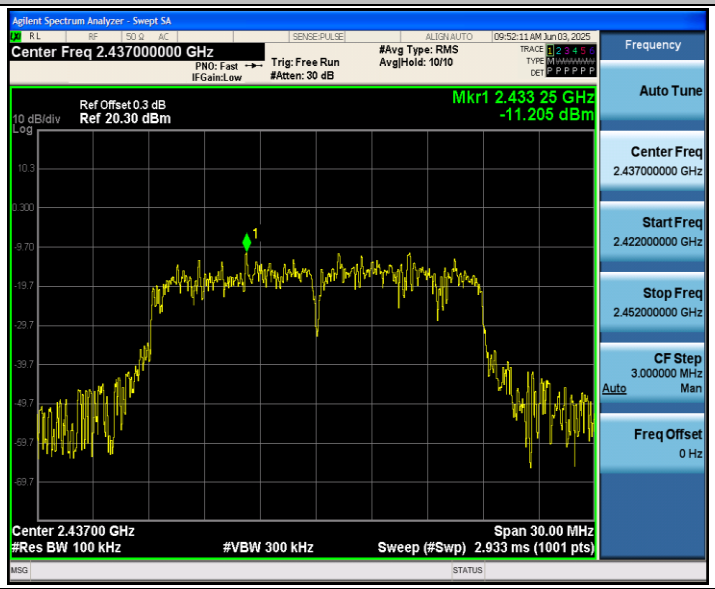
11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000