FCC Appendix RF Test Data

FCC ID	**:**	**2BP5V-8SA8P**
Company	**:**	**Dong Guan Zhen Ke Technology Co., LTD**
EUT	**:**	**Weather Station**
Model Number	**:**	**SA8 Plus**
Report No.	**:**	**CTA25061800503**
Reviewed By	**:**	**Eric Wang**

Appendix A: DTS Bandwidth

Test Result

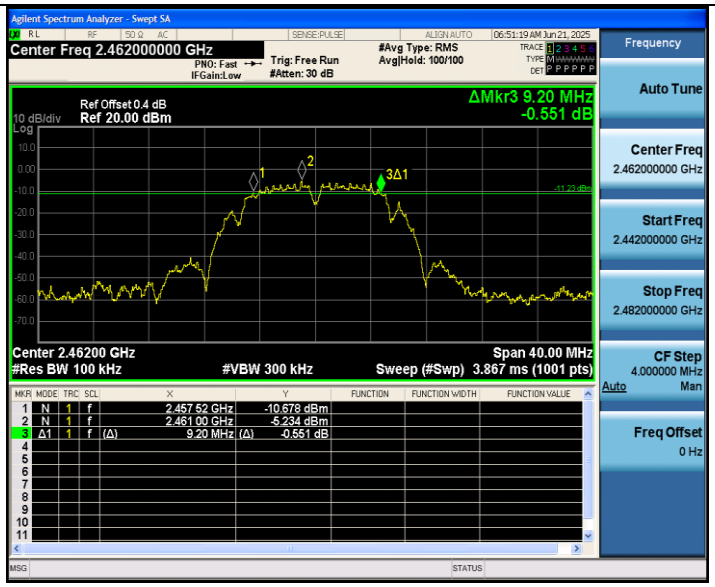
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.560	2407.480	2417.040	0.5	PASS
		2437	8.560	2432.960	2441.520	0.5	PASS
		2462	9.200	2457.520	2466.720	0.5	PASS
11G	Ant1	2412	15.600	2404.000	2419.600	0.5	PASS
		2437	15.720	2429.440	2445.160	0.5	PASS
		2462	15.680	2453.840	2469.520	0.5	PASS
11N20SISO	Ant1	2412	15.800	2403.800	2419.600	0.5	PASS
		2437	16.080	2429.440	2445.520	0.5	PASS
		2462	16.160	2453.360	2469.520	0.5	PASS
11N40SISO	Ant1	2422	35.760	2404.080	2439.840	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	30.000	2434.480	2464.480	0.5	PASS

Test Graphs

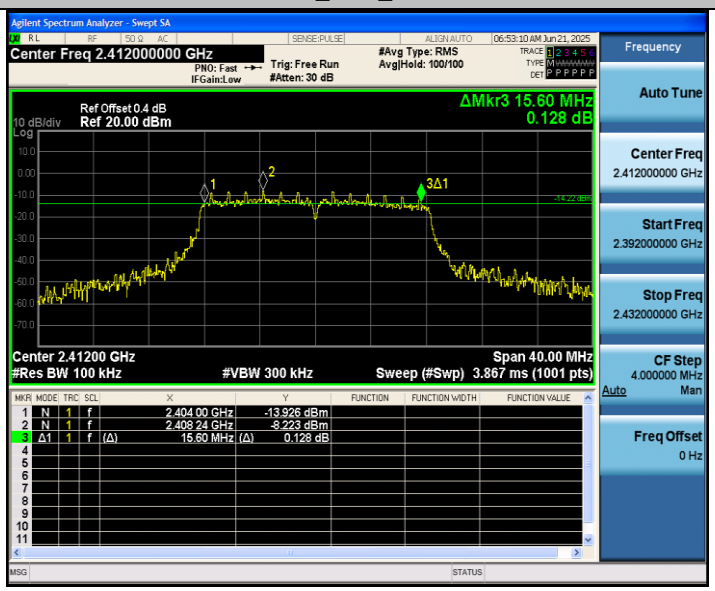
11B_Ant1_2412

11B_Ant1_2437

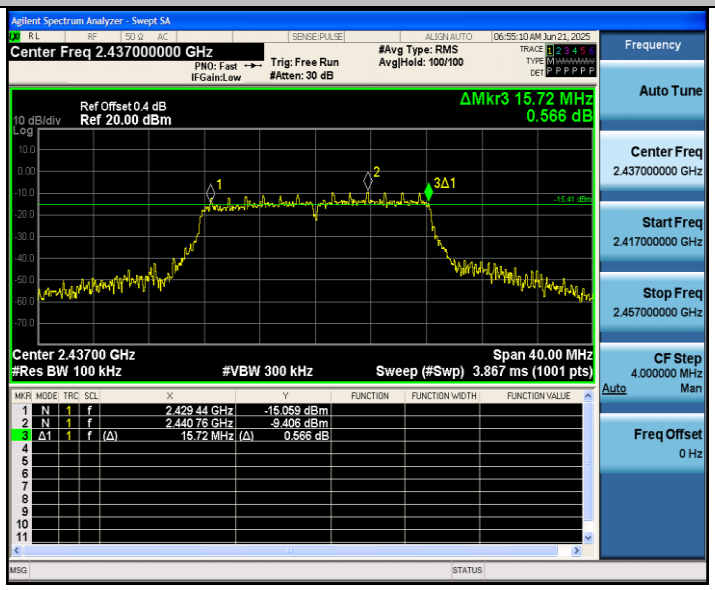
11B_Ant1_2462



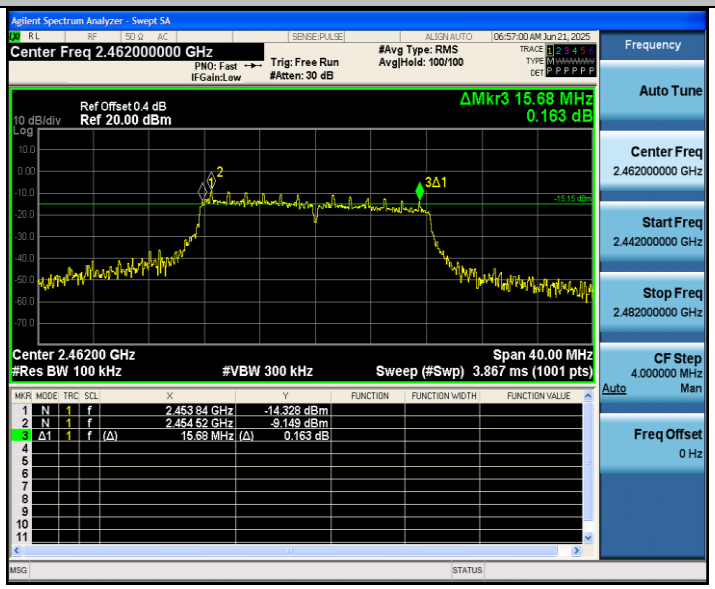
11G_Ant1_2412



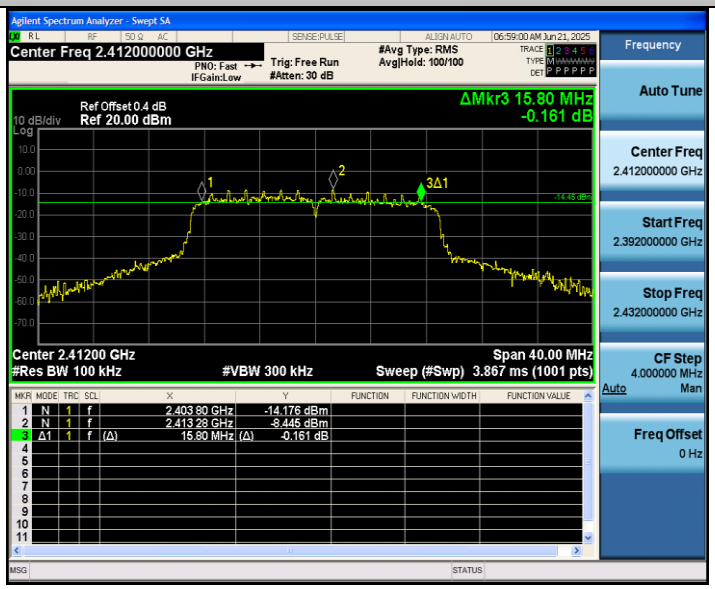
11G_Ant1_2437



11G_Ant1_2462

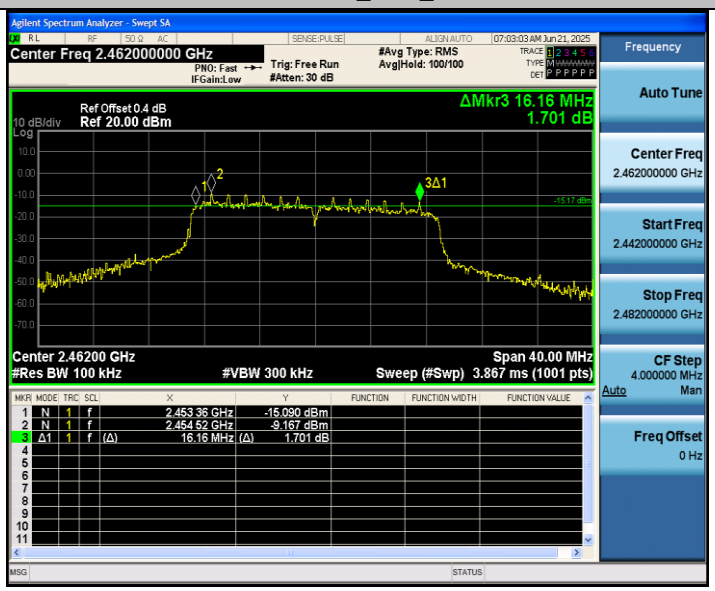


11N20SISO_Ant1_2412

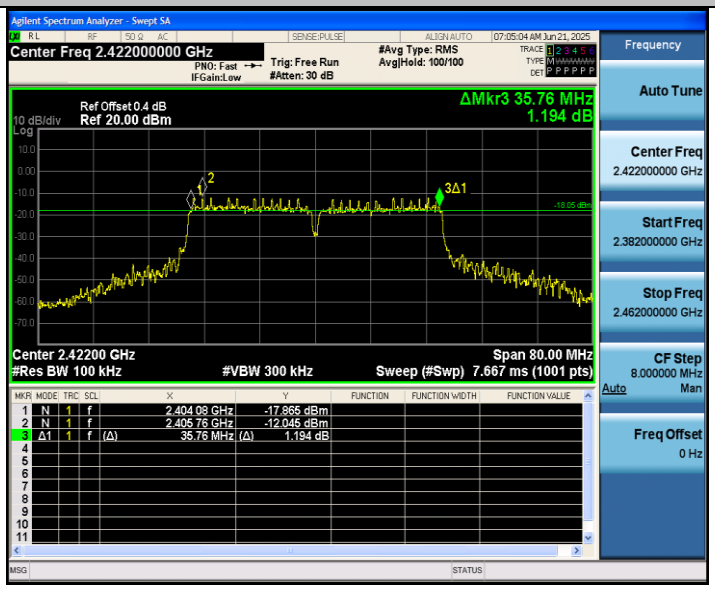


11N20SISO_Ant1_2437

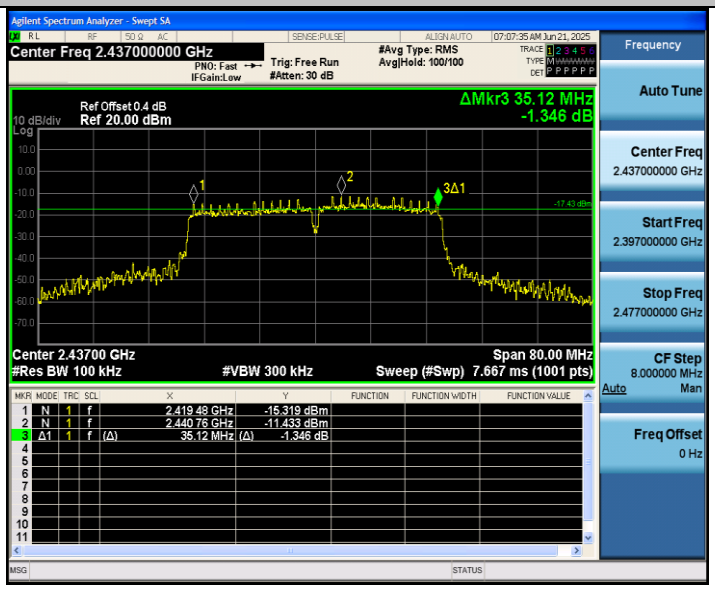
11N20SISO_Ant1_2462



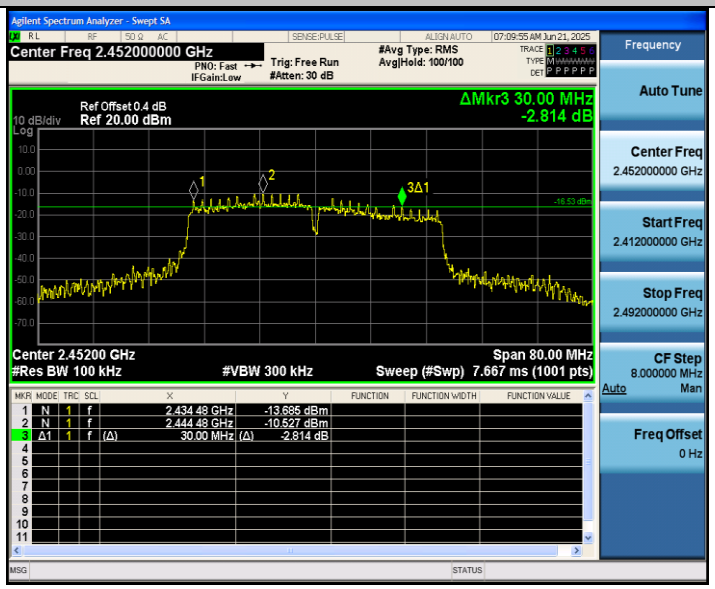
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



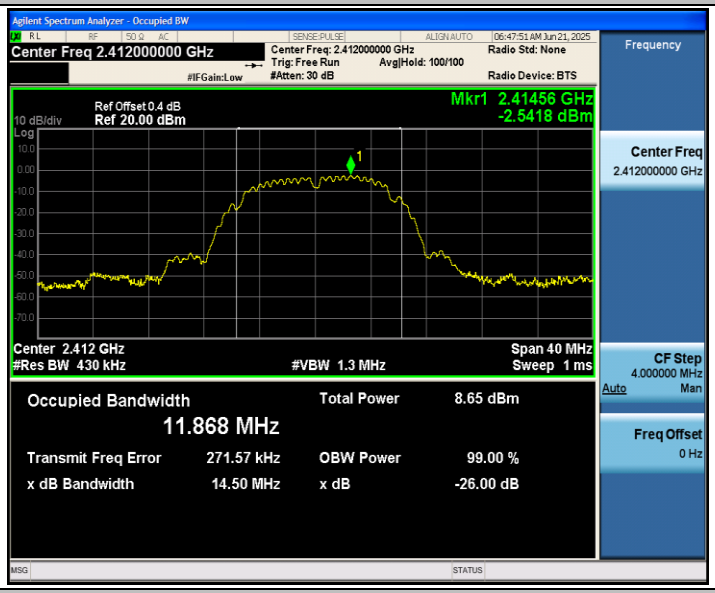
Appendix B: Occupied Channel Bandwidth

Test Result

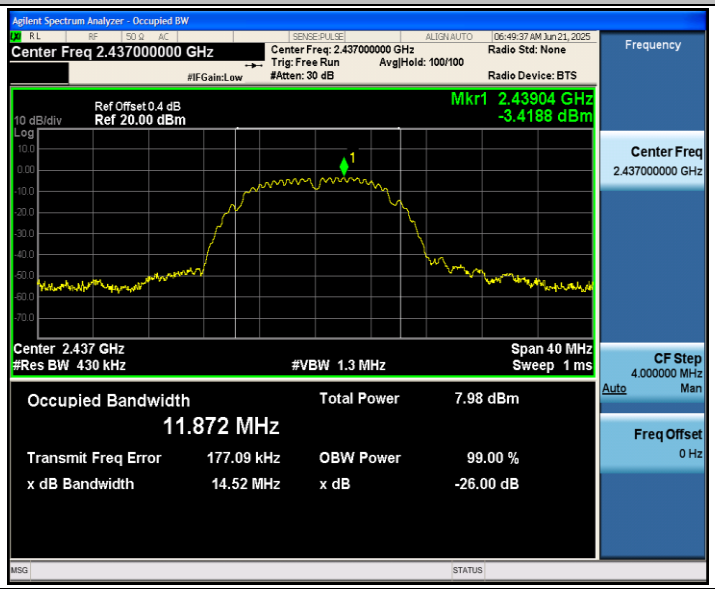
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	11.868	2406.3376	2418.2056	---	---
		2437	11.872	2431.2411	2443.1131	---	---
		2462	12.004	2456.1284	2468.1324	---	---
11G	Ant1	2412	16.627	2403.6546	2420.2816	---	---
		2437	16.614	2428.8206	2445.4346	---	---
		2462	16.687	2453.5279	2470.2149	---	---
11N20SISO	Ant1	2412	17.609	2403.2044	2420.8134	---	---
		2437	17.621	2428.3028	2445.9238	---	---
		2462	17.810	2452.9185	2470.7285	---	---
11N40SISO	Ant1	2422	36.499	2403.8406	2440.3396	---	---
		2437	36.110	2419.0413	2455.1513	---	---
		2452	35.668	2434.0395	2469.7075	---	---

Test Graphs

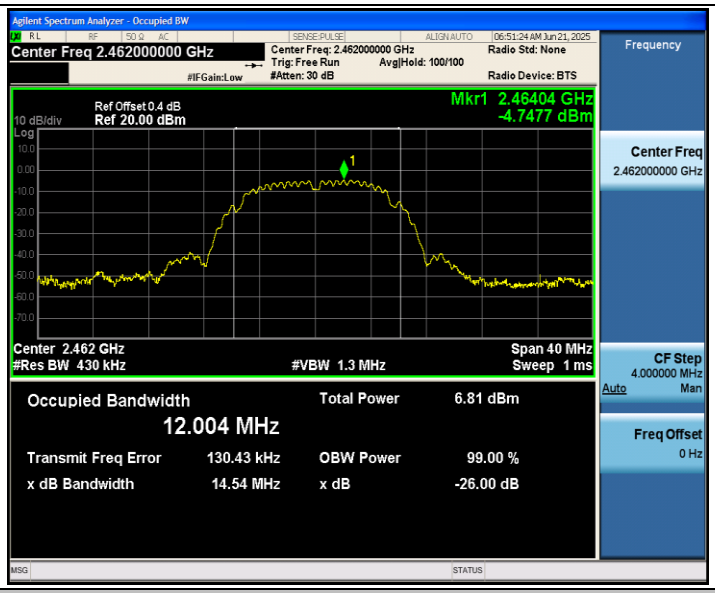
11B_Ant1_2412



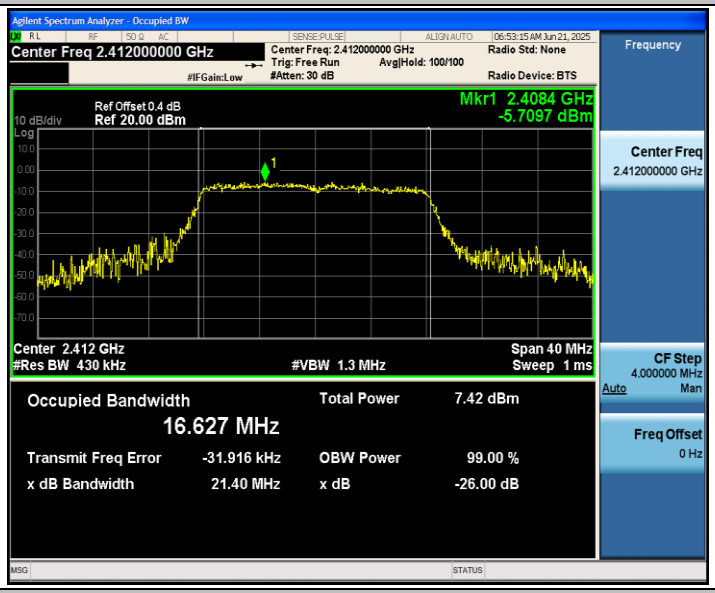
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412

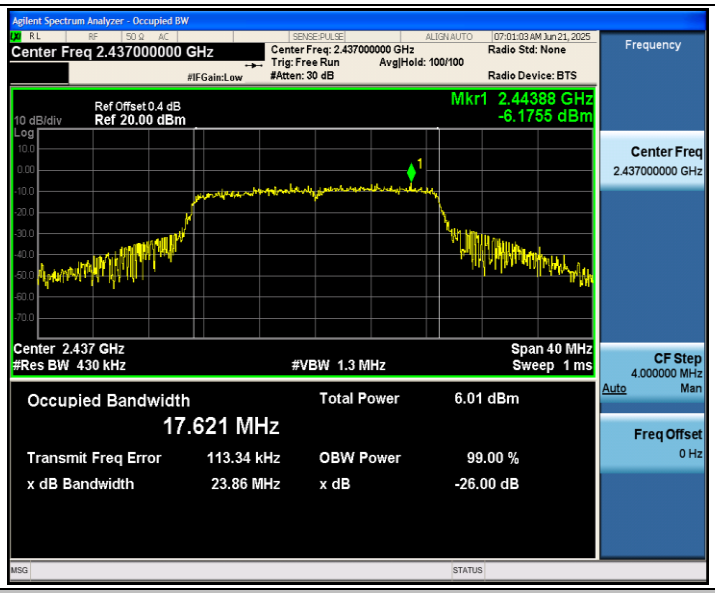


11G_Ant1_2437

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

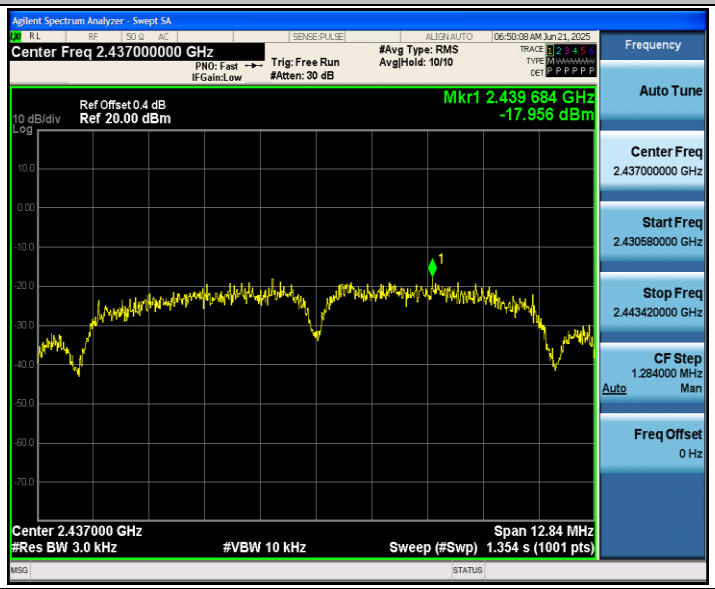
Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	8.55	≤30.00	PASS
		2437	7.66	≤30.00	PASS
		2462	6.65	≤30.00	PASS
11G	Ant1	2412	8.08	≤30.00	PASS
		2437	6.92	≤30.00	PASS
		2462	6.21	≤30.00	PASS
11N20SISO	Ant1	2412	7.96	≤30.00	PASS
		2437	6.64	≤30.00	PASS
		2462	6.00	≤30.00	PASS
11N40SISO	Ant1	2422	7.27	≤30.00	PASS
		2437	7.02	≤30.00	PASS
		2452	6.90	≤30.00	PASS

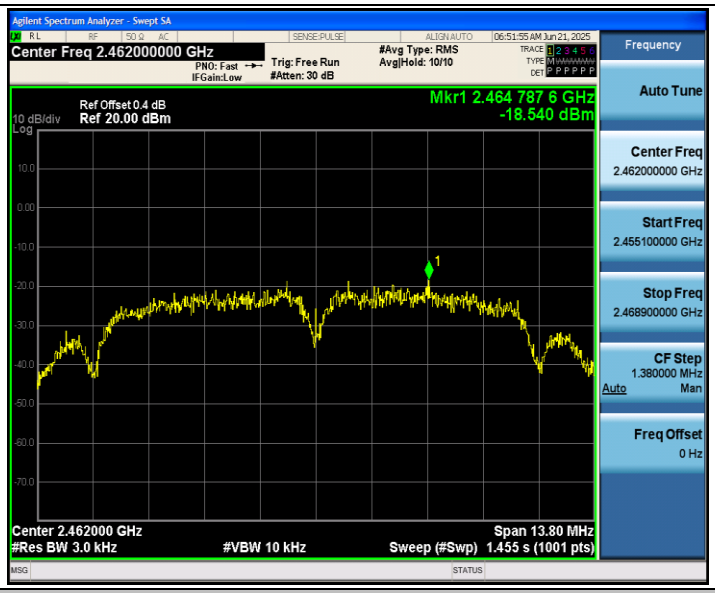
Appendix D: Maximum power spectral density

Test Result

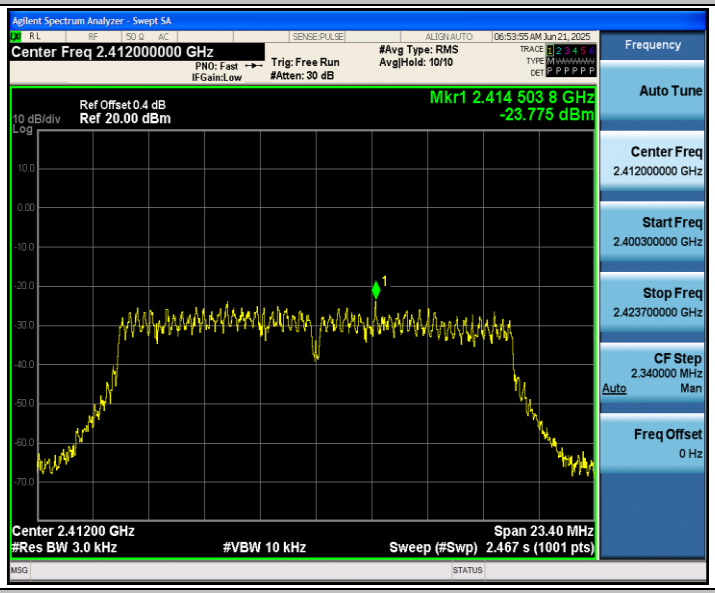
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-16.61	≤8.00	PASS
		2437	-17.96	≤8.00	PASS
		2462	-18.54	≤8.00	PASS
11G	Ant1	2412	-23.78	≤8.00	PASS
		2437	-24.64	≤8.00	PASS
		2462	-26.09	≤8.00	PASS
11N20SISO	Ant1	2412	-24.10	≤8.00	PASS
		2437	-25.06	≤8.00	PASS
		2462	-25.83	≤8.00	PASS
11N40SISO	Ant1	2422	-28.23	≤8.00	PASS
		2437	-27.75	≤8.00	PASS
		2452	-26.96	≤8.00	PASS

Test Graphs

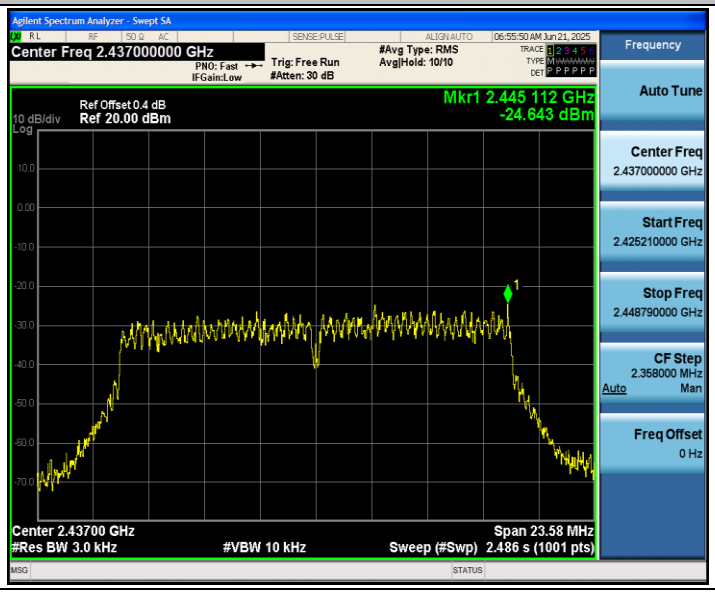
11B_Ant1_2412
11B_Ant1_2437

11B_Ant1_2462



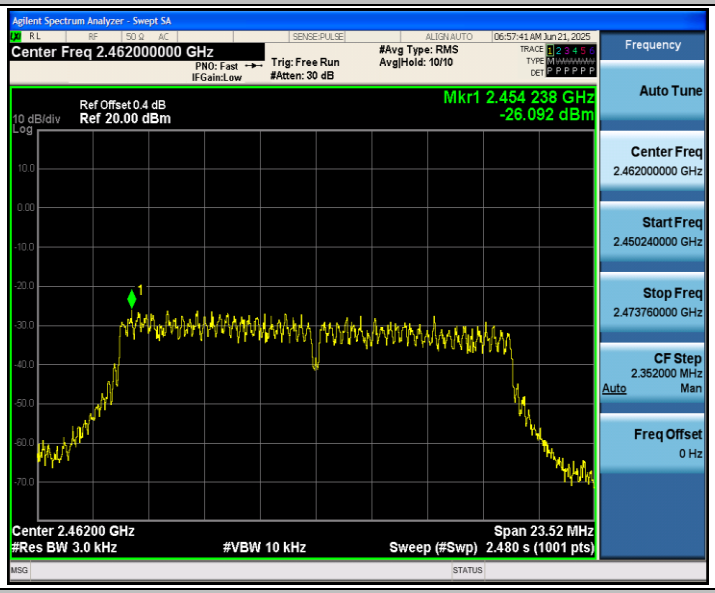
11G_Ant1_2412



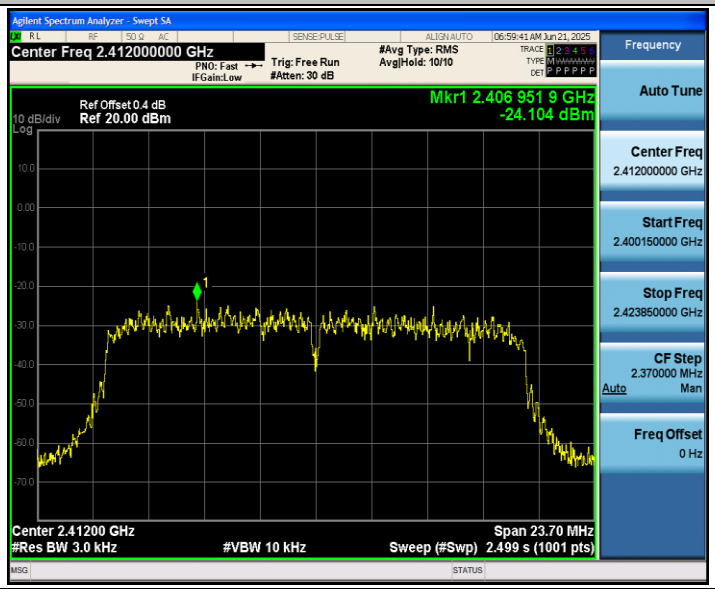
11G_Ant1_2437



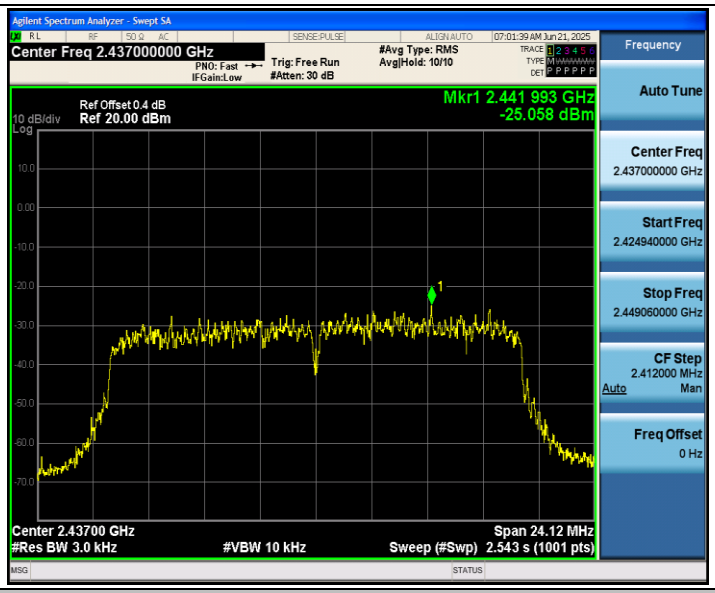
11G_Ant1_2462



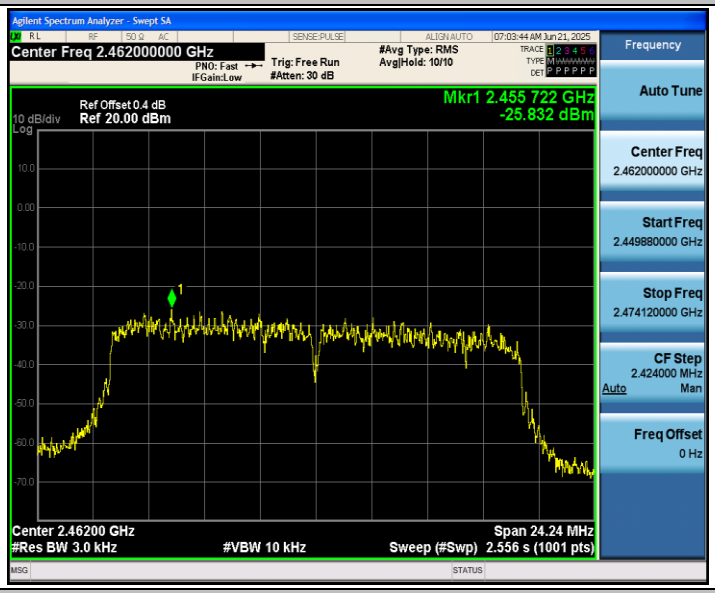
11N20SISO_Ant1_2412



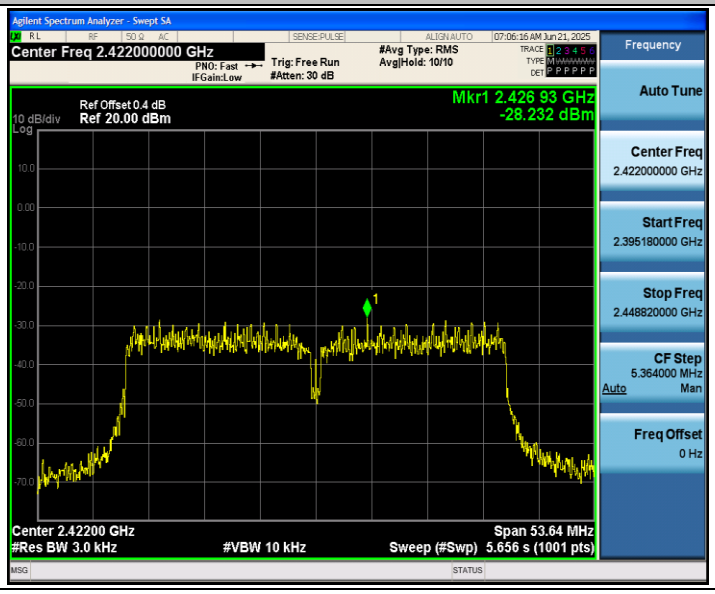
11N20SISO_Ant1_2437

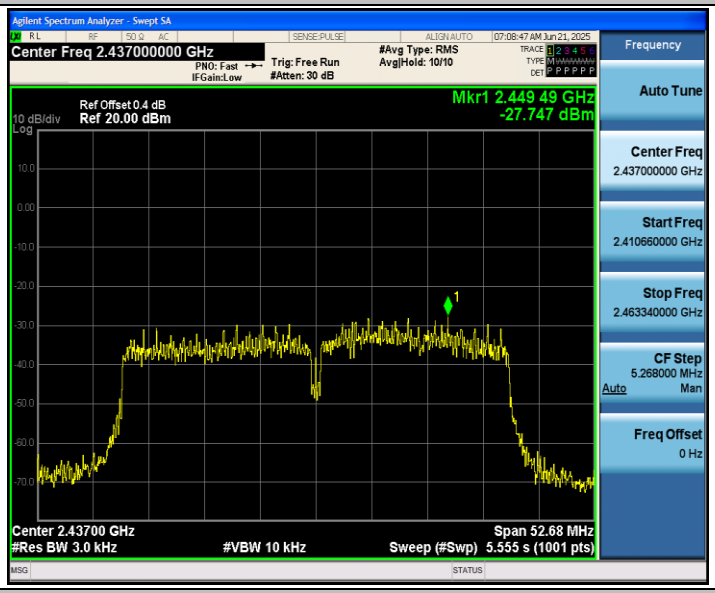


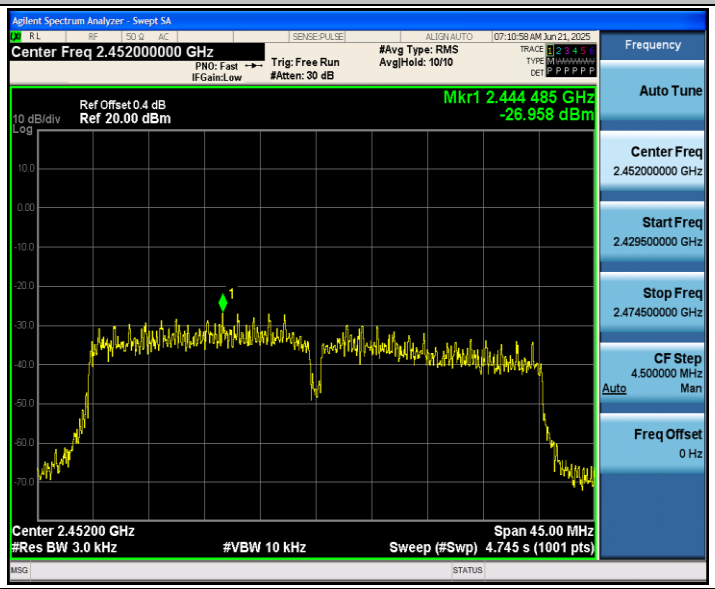
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


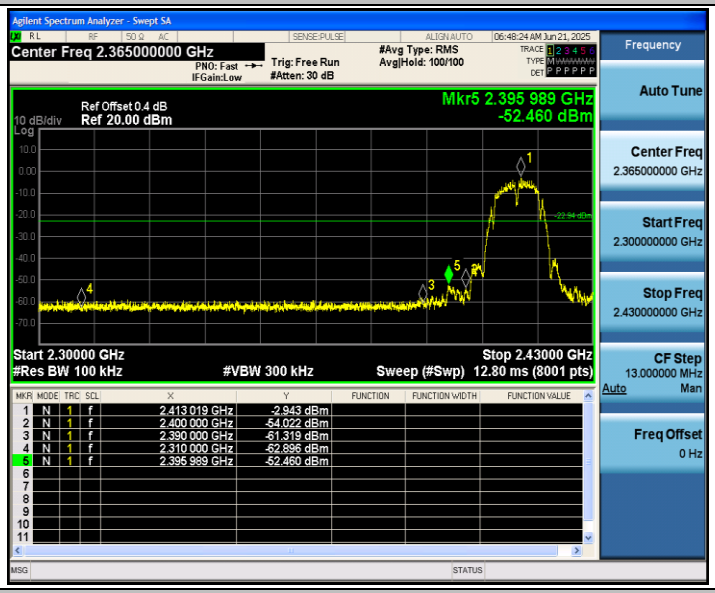
Appendix E: Band edge measurements

Test Result

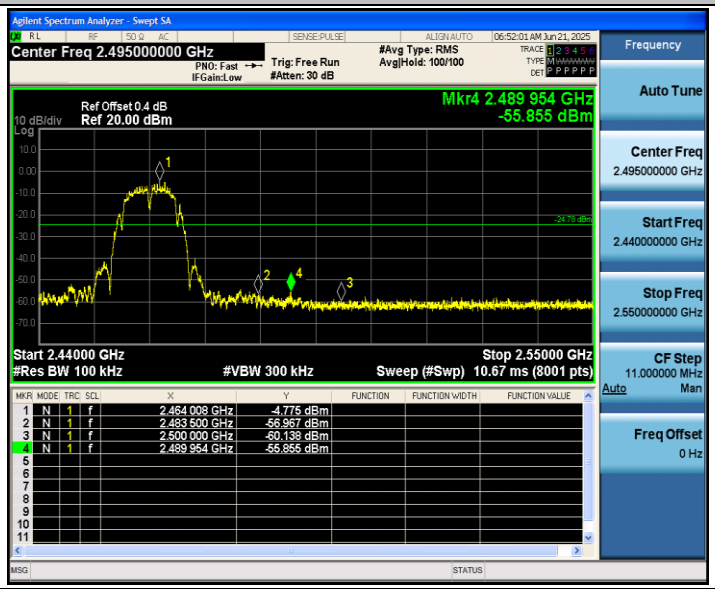
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-2.94	-52.46	≤-22.94	PASS
		High	2462	-4.78	-55.86	≤-24.78	PASS
11G	Ant1	Low	2412	-8.41	-40.78	≤-28.41	PASS
		High	2462	-9.12	-54.2	≤-29.12	PASS
11N20SISO	Ant1	Low	2412	-8.28	-41.49	≤-28.28	PASS
		High	2462	-9.15	-54.83	≤-29.15	PASS
11N40SISO	Ant1	Low	2422	-11.89	-43.09	≤-31.89	PASS
		High	2452	-10.61	-48.56	≤-30.61	PASS

Test Graphs

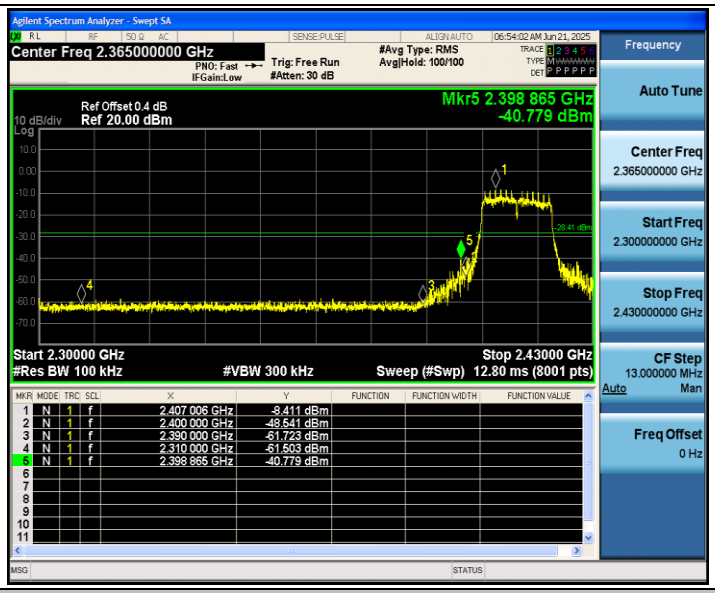
11B_Ant1_Low_2412



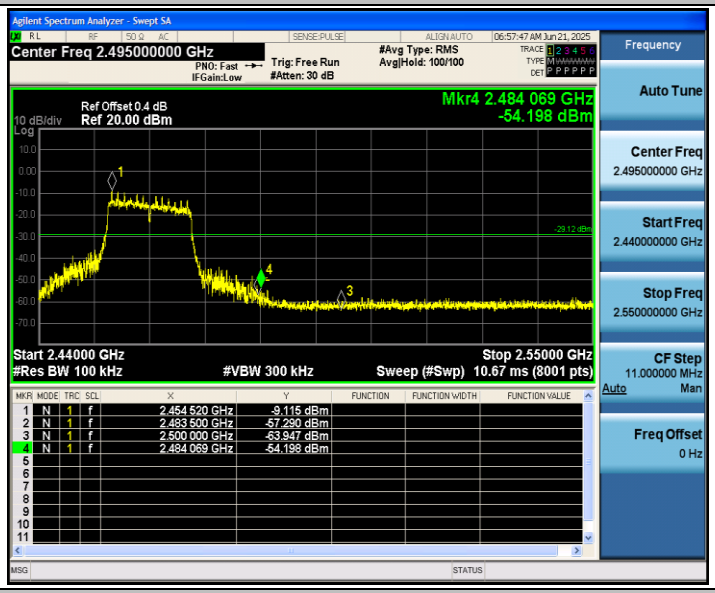
11B_Ant1_High_2462



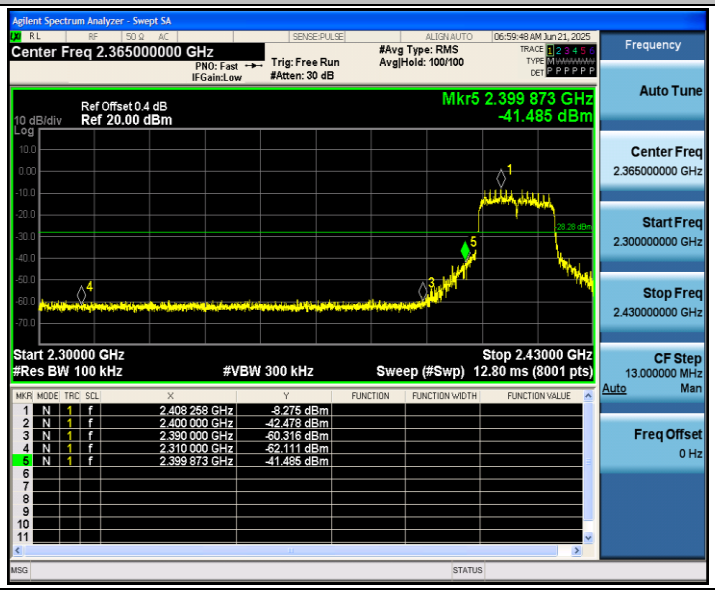
11G_Ant1_Low_2412



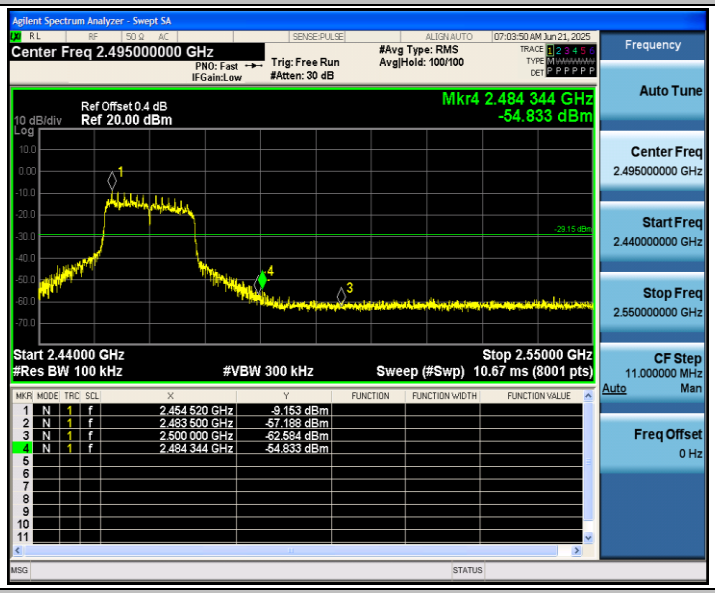
11G_Ant1_High_2462



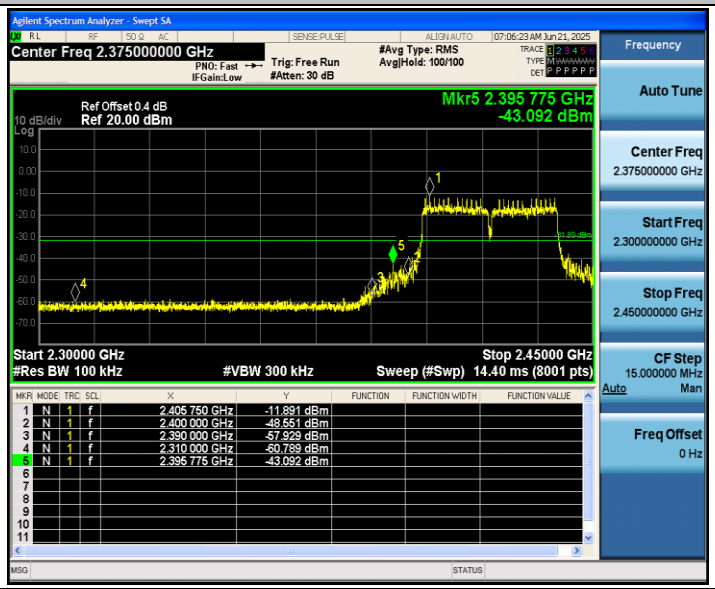
11N20SISO_Ant1_Low_2412



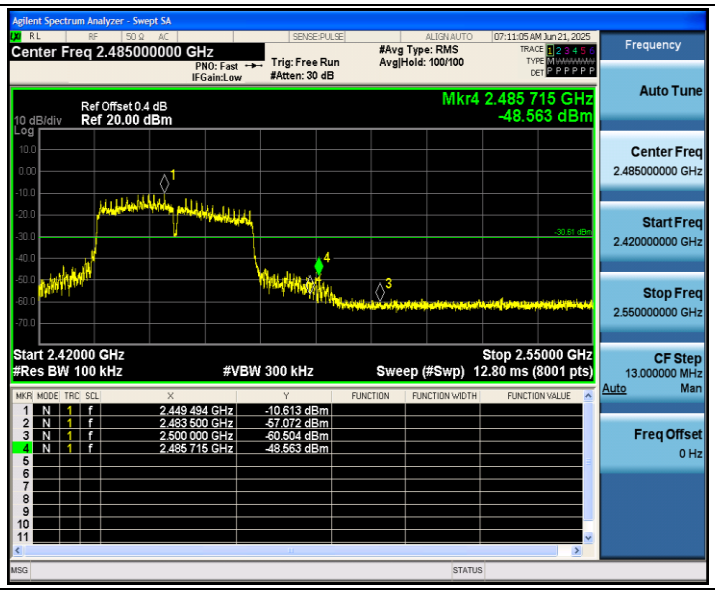
11N20SISO_Ant1_High_2462



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
07:11:05 AM Jun 21, 2025
Ref Offset 0.4 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.485 715 GHz
-48.563 dBm
-30.61 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 2.449 494 GHz -10.613 dBm
2 N 1 f 2.483 500 GHz -57.072 dBm
3 N 1 f 2.500 000 GHz -60.504 dBm
4 N 1 f 2.485 715 GHz -48.563 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

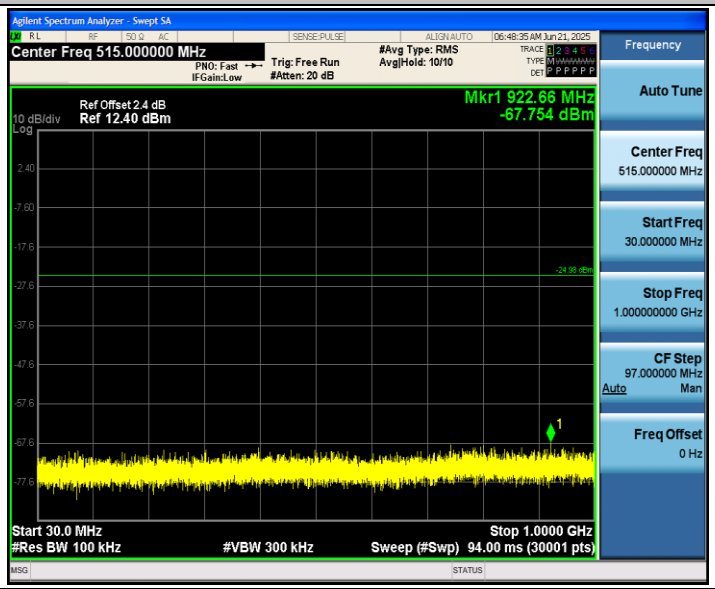
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-4.98	-4.98	---	PASS
			30~1000	-4.98	-67.75	≤-24.98	PASS
			1000~26500	-4.98	-48.29	≤-24.98	PASS
		2437	Reference	-5.00	-5.00	---	PASS
			30~1000	-5.00	-64.13	≤-25	PASS
			1000~26500	-5.00	-46.51	≤-25	PASS
		2462	Reference	-4.89	-4.89	---	PASS
			30~1000	-4.89	-67.51	≤-24.89	PASS
			1000~26500	-4.89	-41.27	≤-24.89	PASS
11G	Ant1	2412	Reference	-9.04	-9.04	---	PASS
			30~1000	-9.04	-67.97	≤-29.04	PASS
			1000~26500	-9.04	-55.63	≤-29.04	PASS
		2437	Reference	-9.91	-9.91	---	PASS
			30~1000	-9.91	-67.81	≤-29.91	PASS
			1000~26500	-9.91	-55.21	≤-29.91	PASS
		2462	Reference	-10.85	-10.85	---	PASS
			30~1000	-10.85	-68.05	≤-30.85	PASS
			1000~26500	-10.85	-50.78	≤-30.85	PASS
11N20SISO	Ant1	2412	Reference	-8.48	-8.48	---	PASS
			30~1000	-8.48	-67.69	≤-28.48	PASS
			1000~26500	-8.48	-47.97	≤-28.48	PASS
		2437	Reference	-9.81	-9.81	---	PASS
			30~1000	-9.81	-67.99	≤-29.81	PASS
			1000~26500	-9.81	-50.57	≤-29.81	PASS
		2462	Reference	-10.06	-10.06	---	PASS
			30~1000	-10.06	-68.01	≤-30.06	PASS
			1000~26500	-10.06	-53.94	≤-30.06	PASS
11N40SISO	Ant1	2422	Reference	-12.39	-12.39	---	PASS
			30~1000	-12.39	-67.08	≤-32.39	PASS
			1000~26500	-12.39	-55.28	≤-32.39	PASS
		2437	Reference	-11.87	-11.87	---	PASS
			30~1000	-11.87	-67.71	≤-31.87	PASS
			1000~26500	-11.87	-53.5	≤-31.87	PASS
		2452	Reference	-11.60	-11.60	---	PASS
			30~1000	-11.60	-68.58	≤-31.6	PASS
			1000~26500	-11.60	-47.42	≤-31.6	PASS

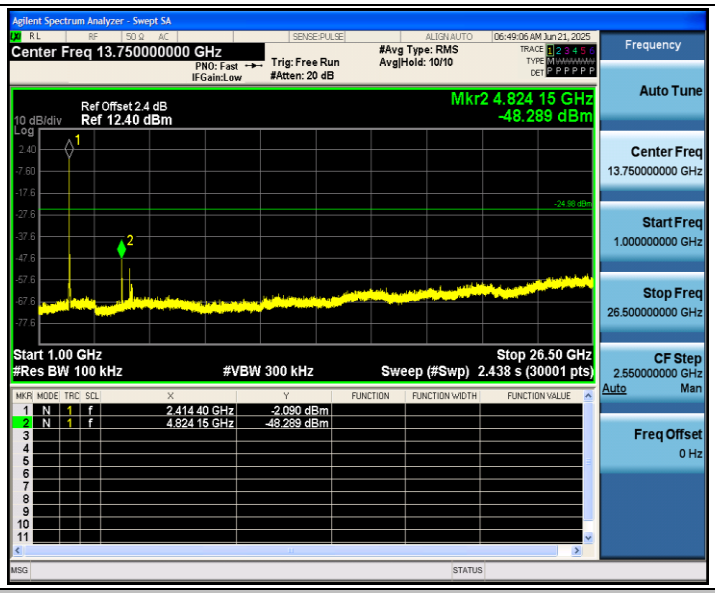
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

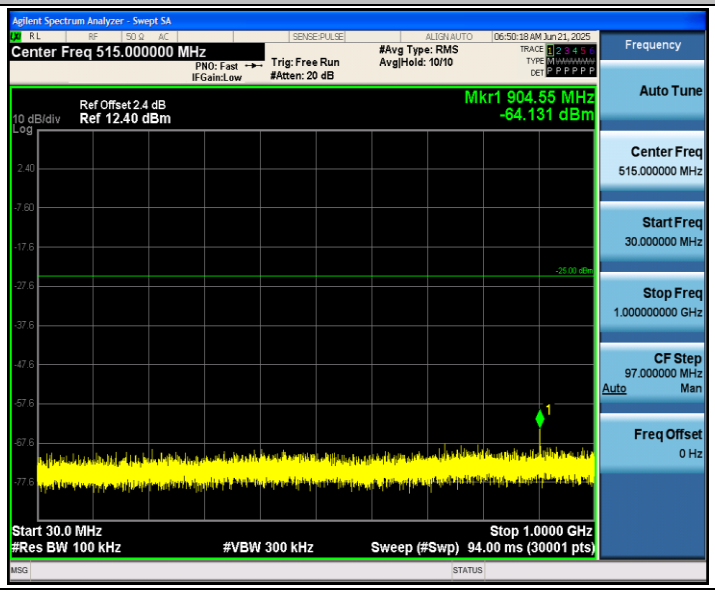


11B_Ant1_2412_1000~26500

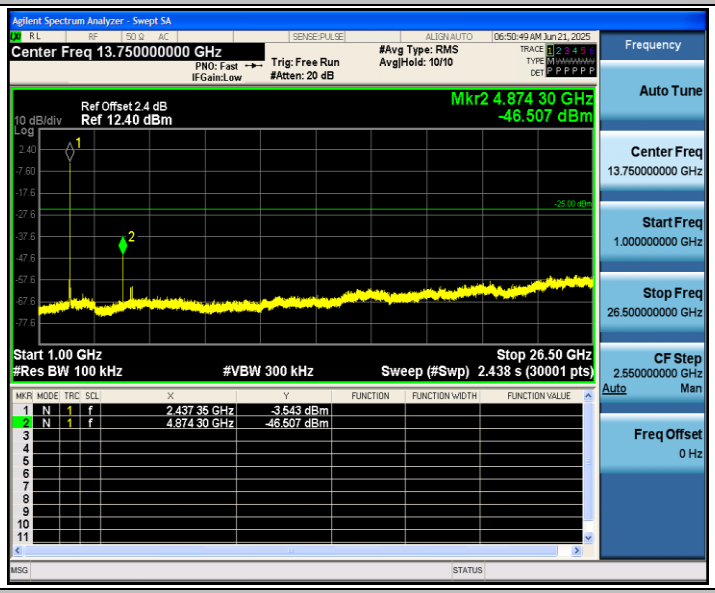


11B_Ant1_2437_0~Reference

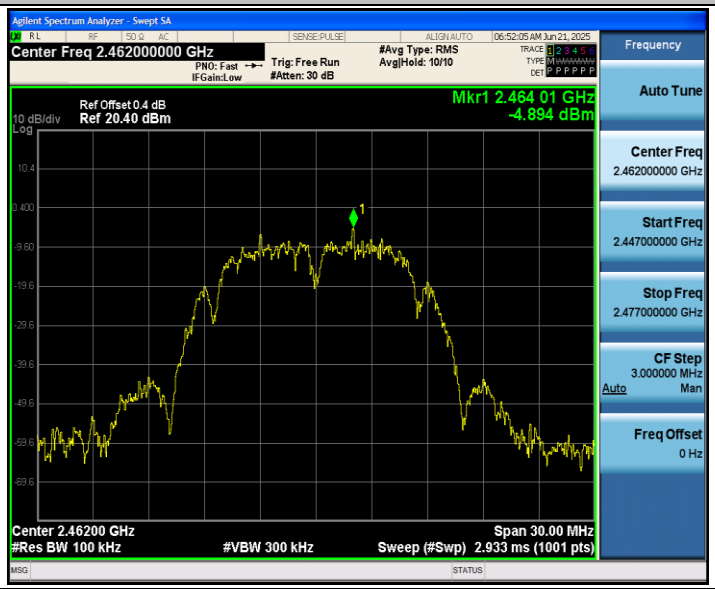
11B_Ant1_2437_30~1000



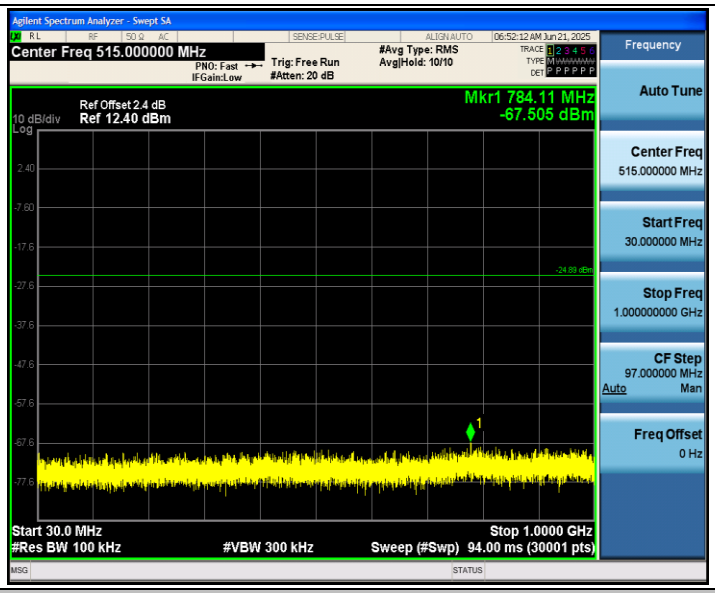
11B_Ant1_2437_1000~26500



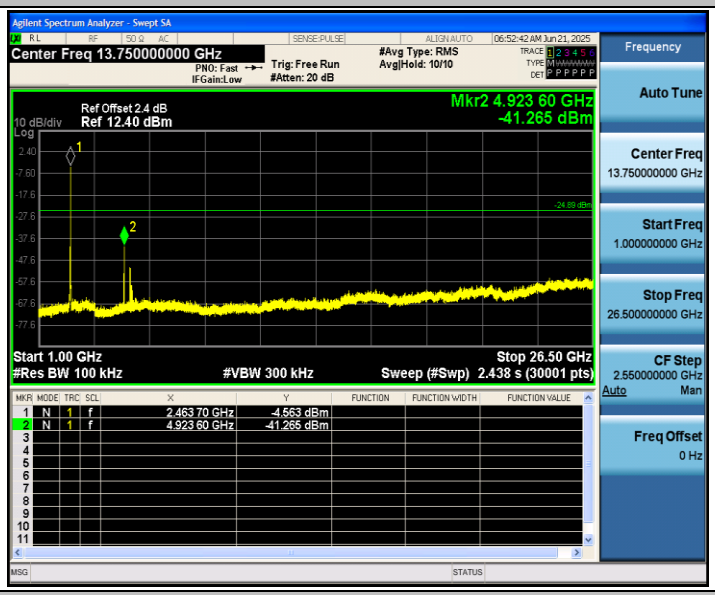
11B_Ant1_2462_0~Reference



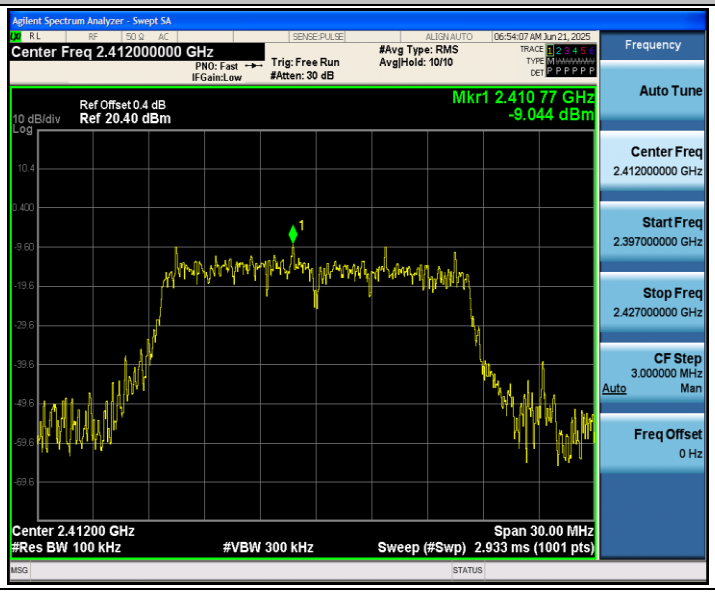
11B_Ant1_2462_30~1000



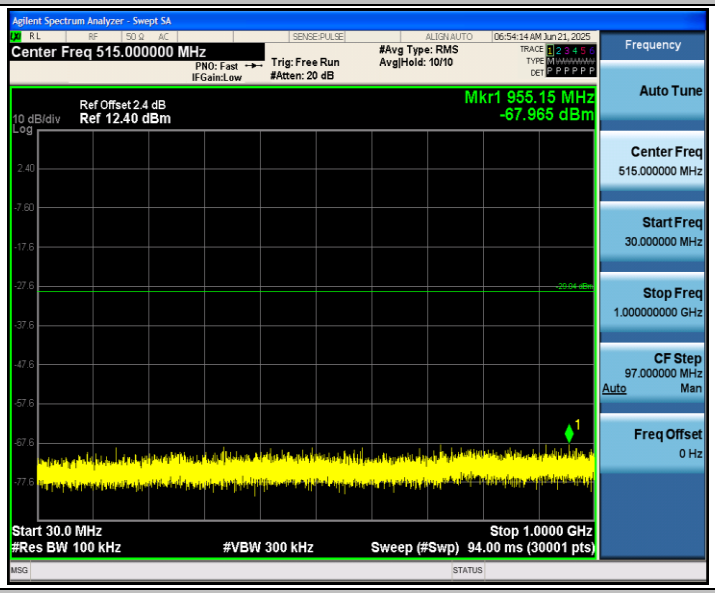
11B_Ant1_2462_1000~26500



11G_Ant1_2412_0~Reference



11G_Ant1_2412_30~1000



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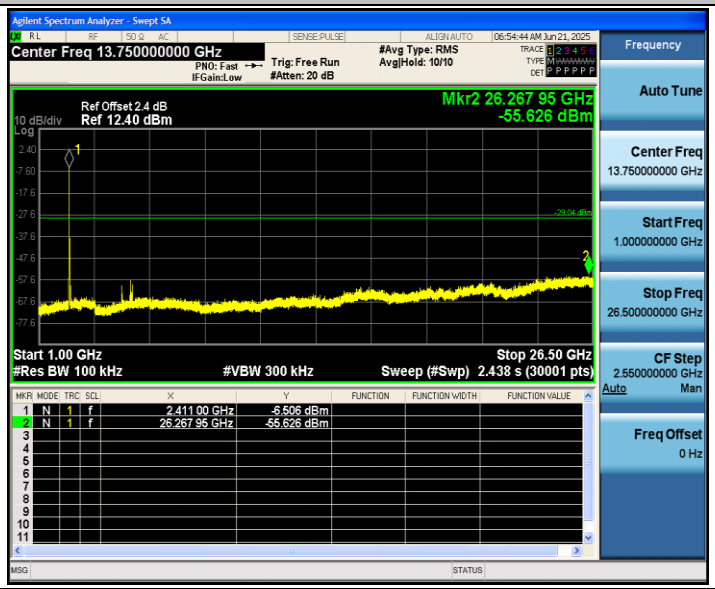

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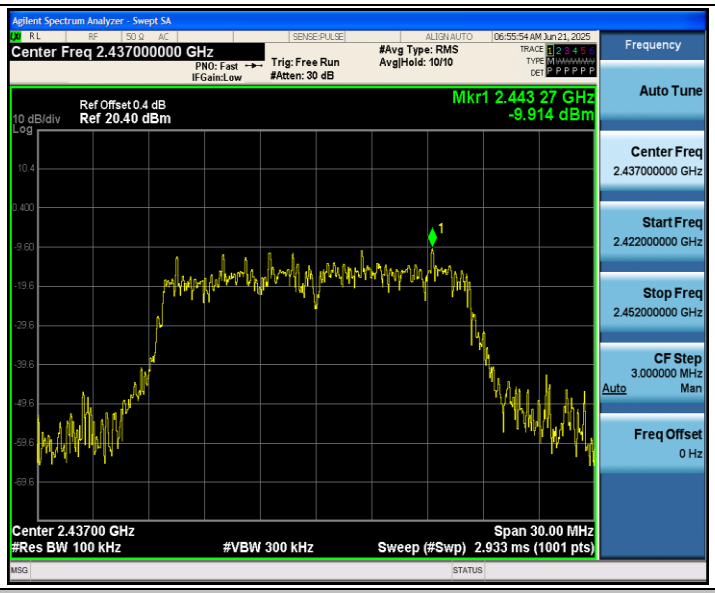
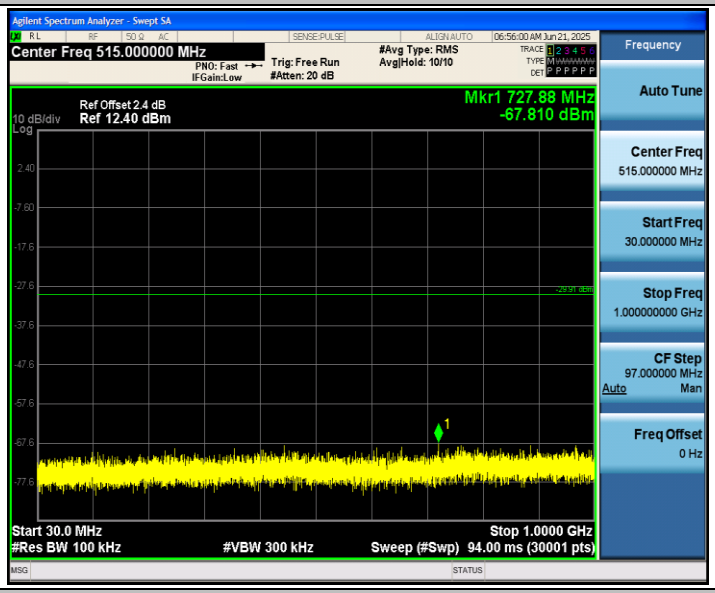


11G_Ant1_2437_30~1000



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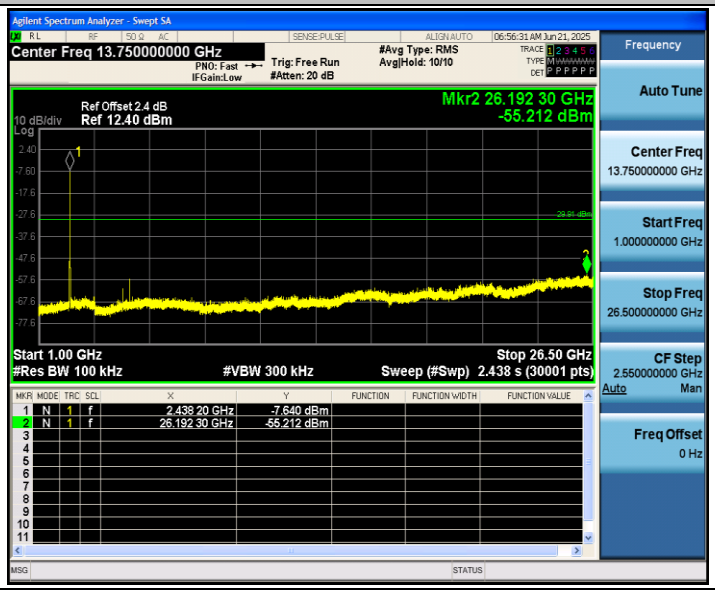
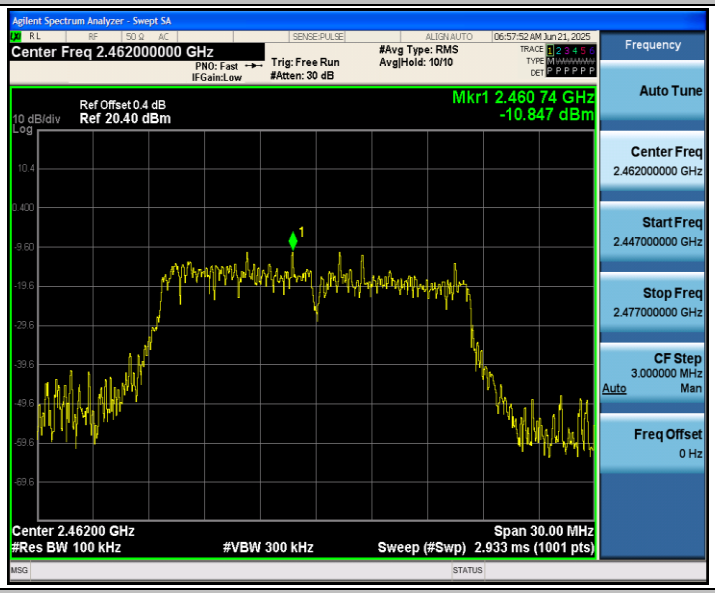


11G_Ant1_2462_0~Reference



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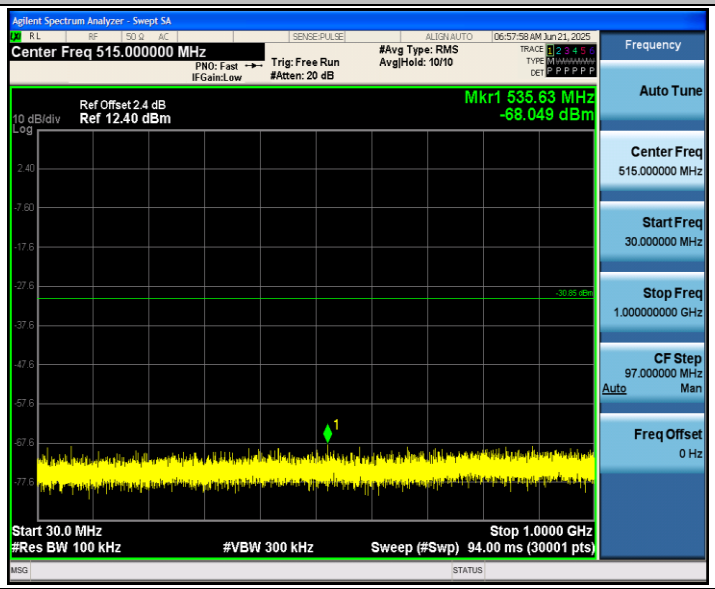
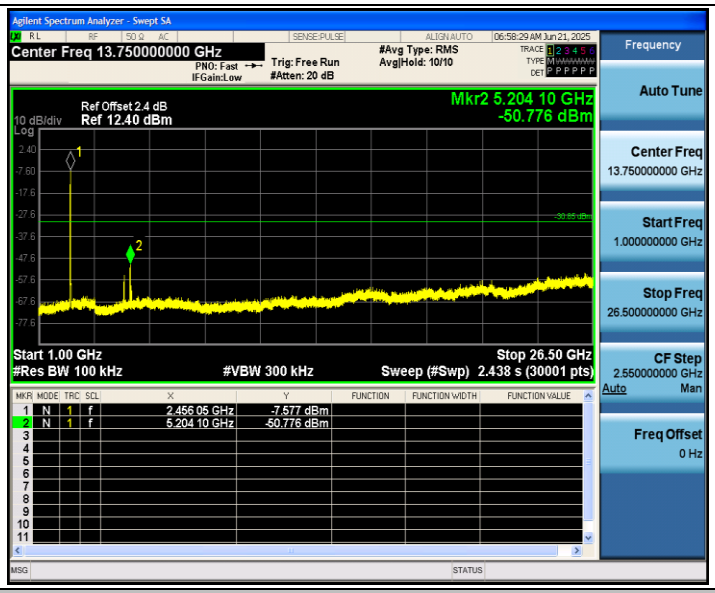
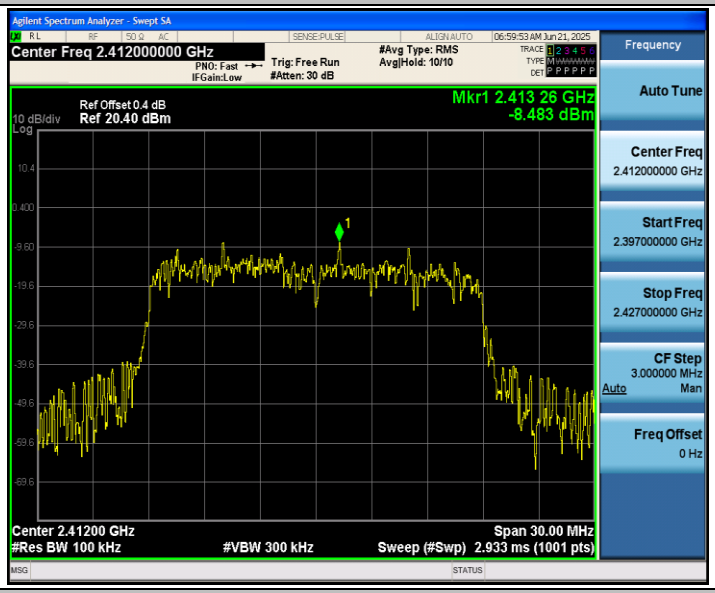


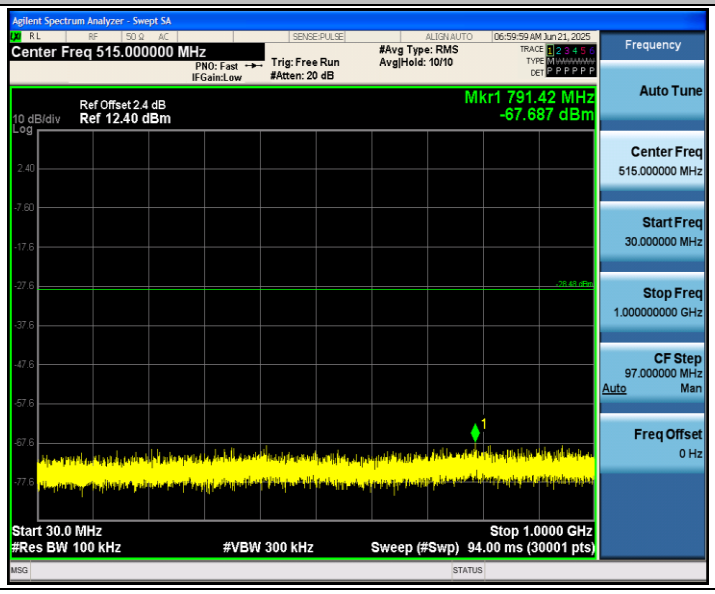
11G_Ant1_2462_1000~26500



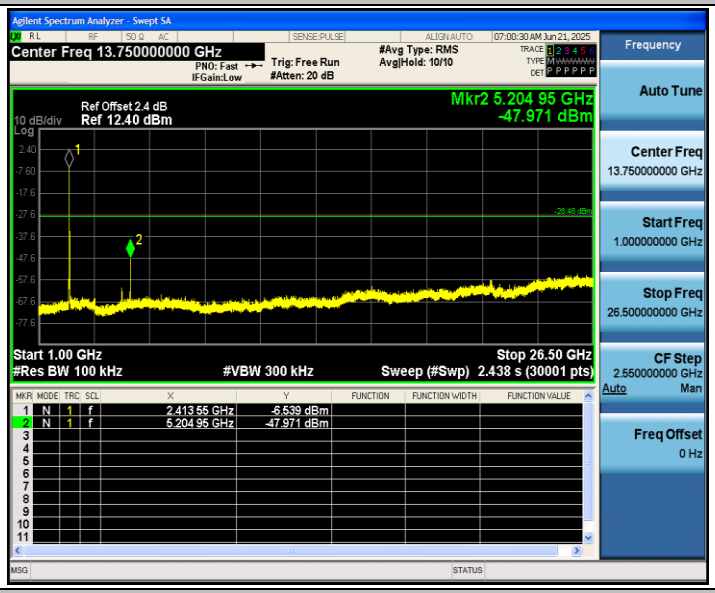
11N20SISO_Ant1_2412_0~Reference



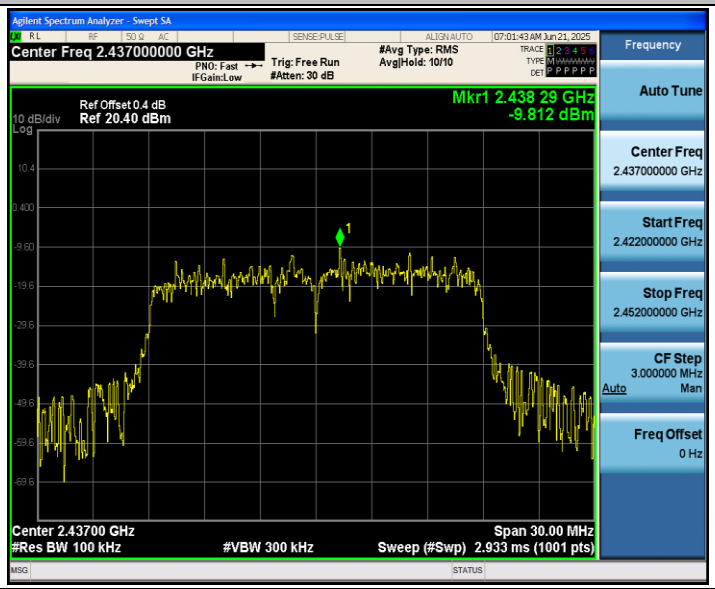
11N20SISO_Ant1_2412_30~1000



11N20SISO_Ant1_2412_1000~26500



11N20SISO_Ant1_2437_0~Reference



11N20SISO_Ant1_2437_30~1000