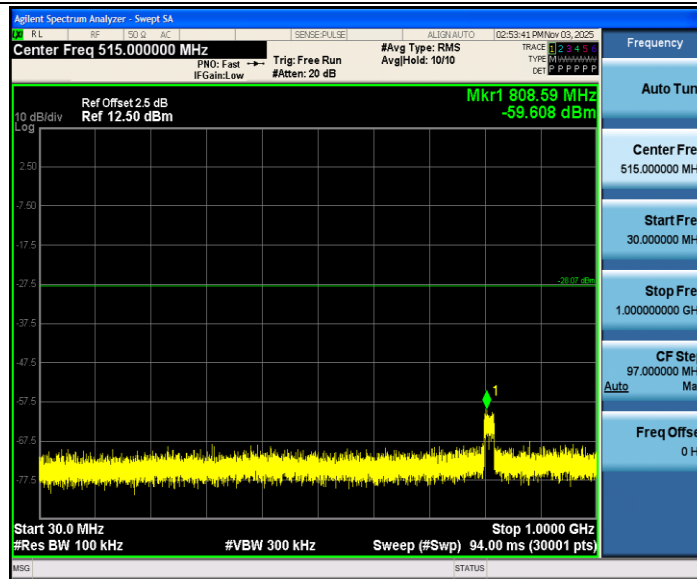
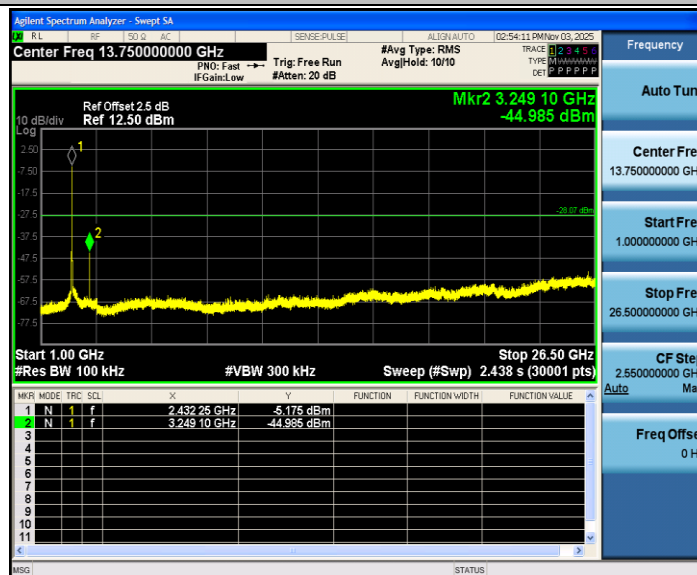




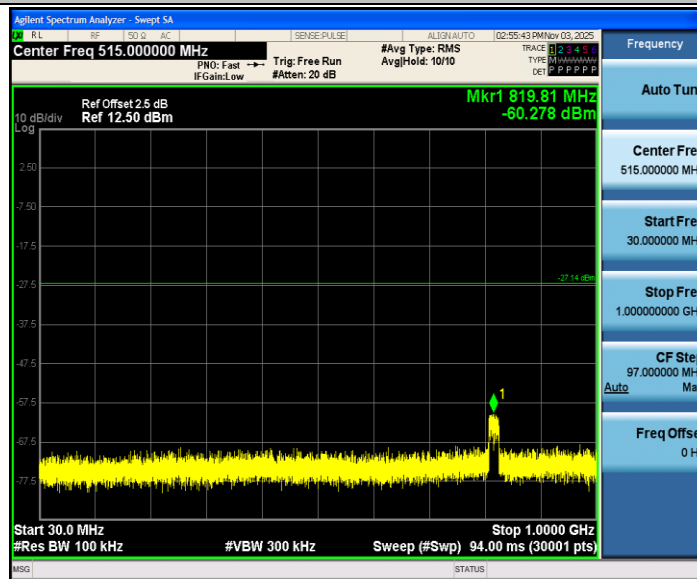
11N20SISO_Ant1_2437_1000~26500



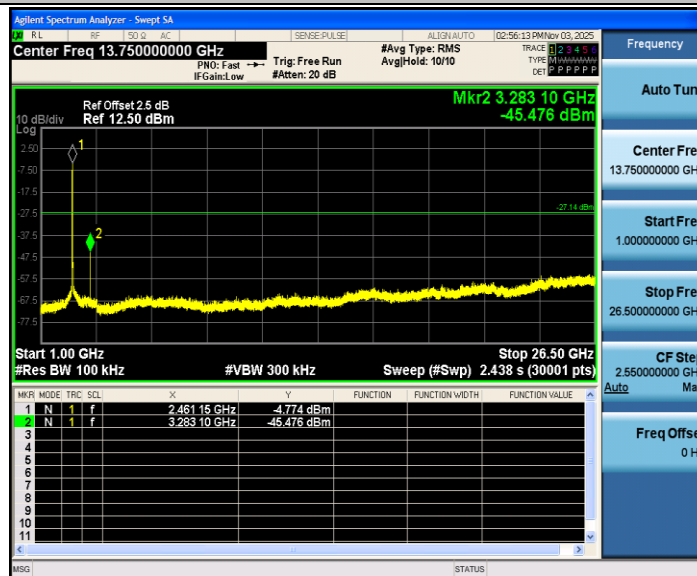
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



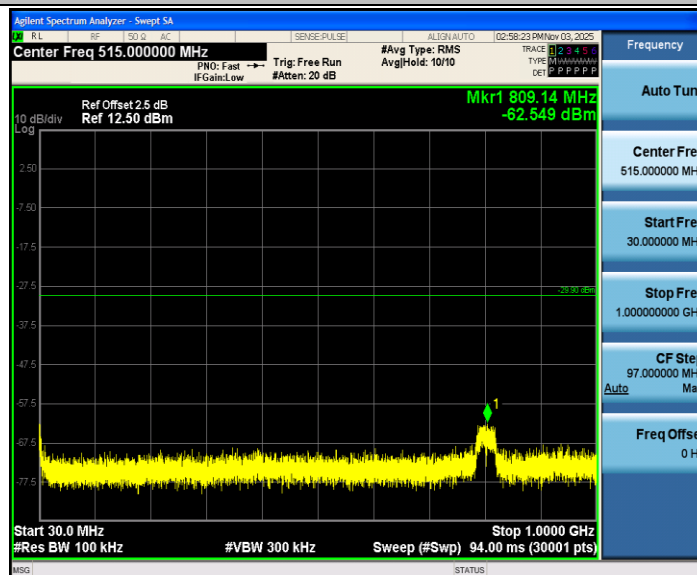
11N20SISO_Ant1_2462_1000~26500



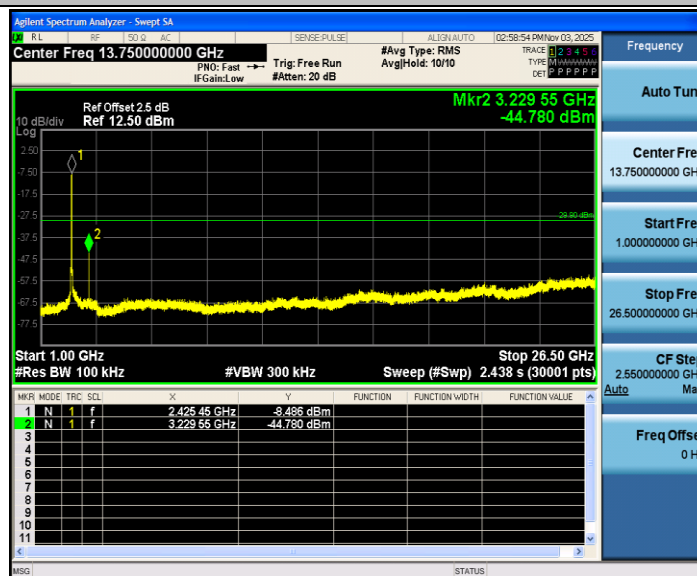
11N40SISO_Ant1_2422_0~Reference



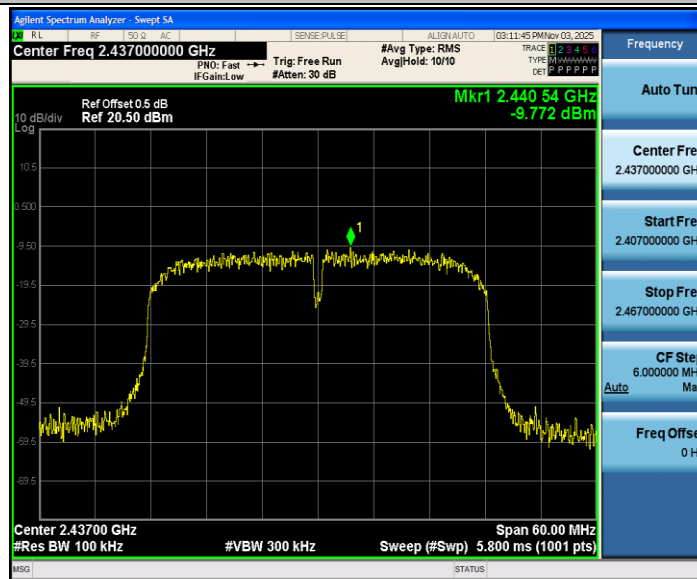
11N40SISO_Ant1_2422_30~1000



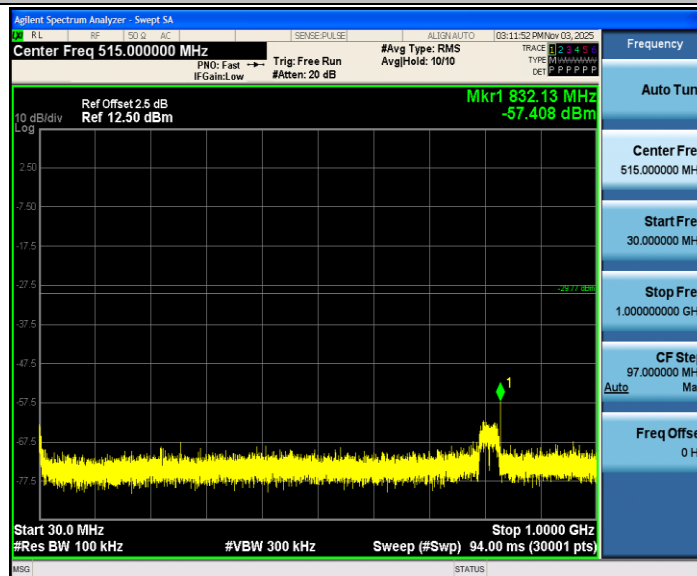
11N40SISO_Ant1_2422_1000~26500



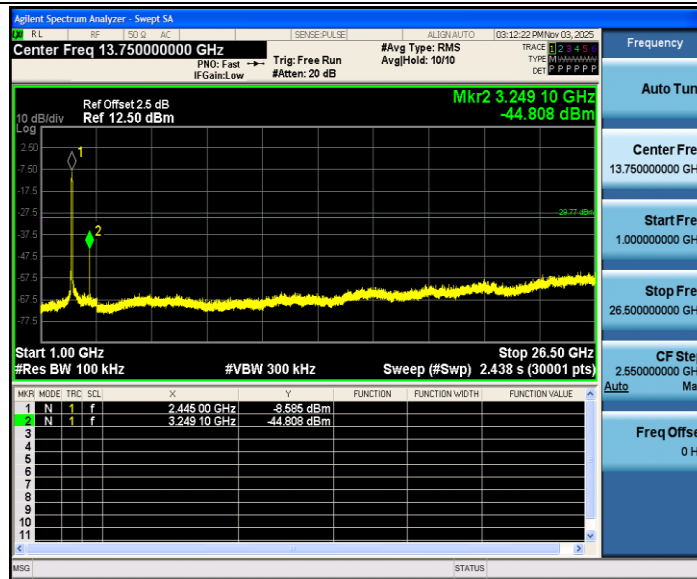
11N40SISO_Ant1_2437_0~Reference



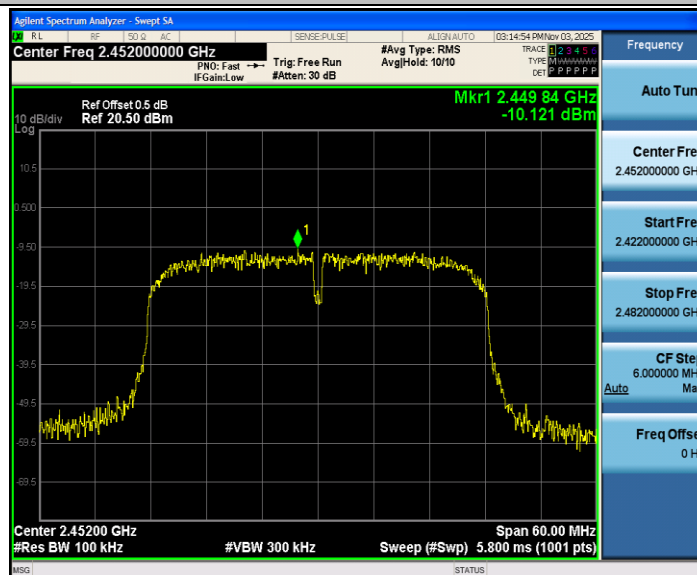
11N40SISO_Ant1_2437_30~1000



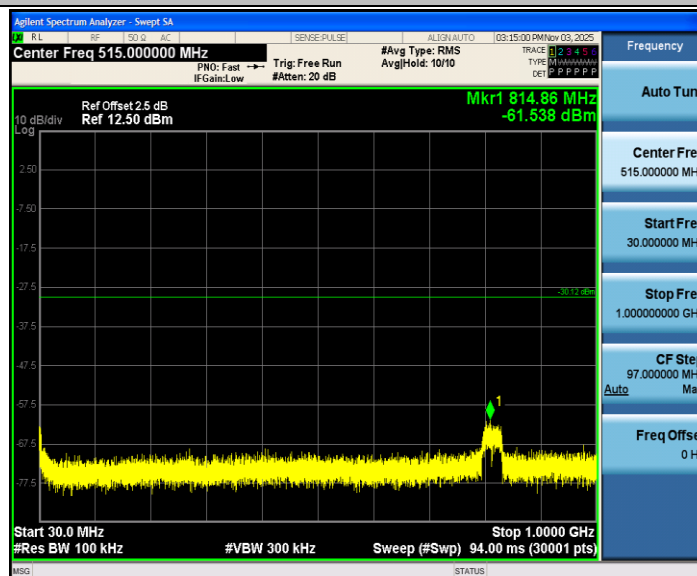
11N40SISO_Ant1_2437_1000~26500



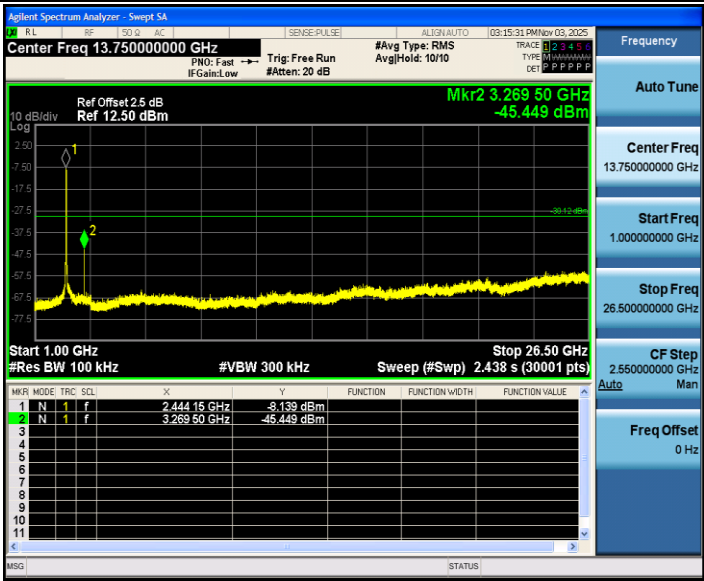
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



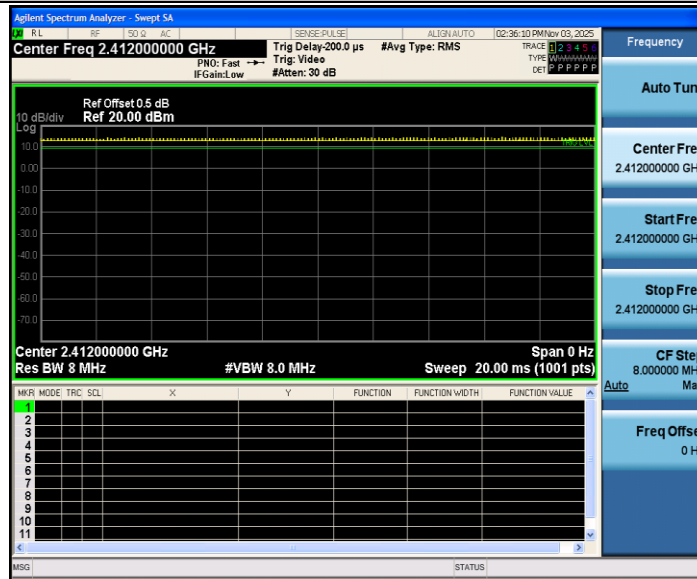
Appendix G: Duty Cycle

Test Result

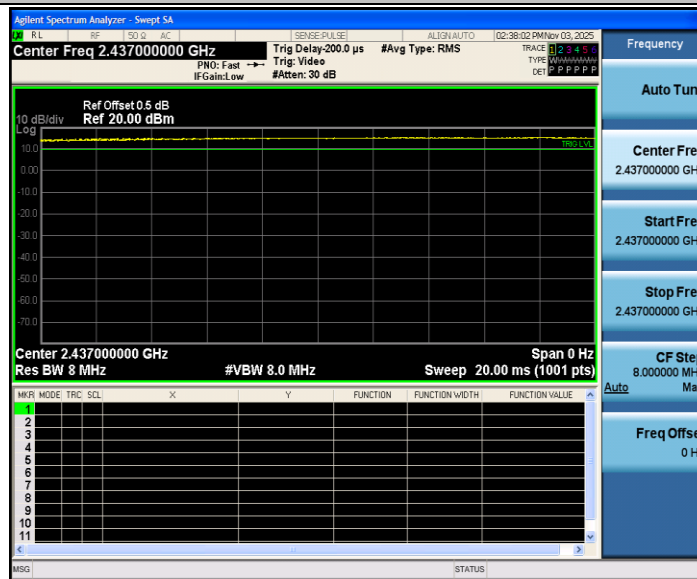
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11B	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11G	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11N20SISO	Ant1	2412	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2462	20.00	20.00	100.00
11N40SISO	Ant1	2422	20.00	20.00	100.00
		2437	20.00	20.00	100.00
		2452	20.00	20.00	100.00

Test Graphs

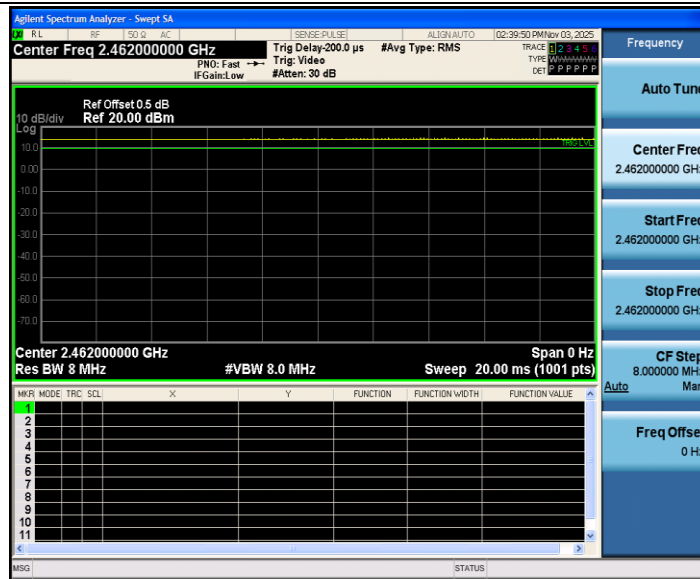
11B_Ant1_2412



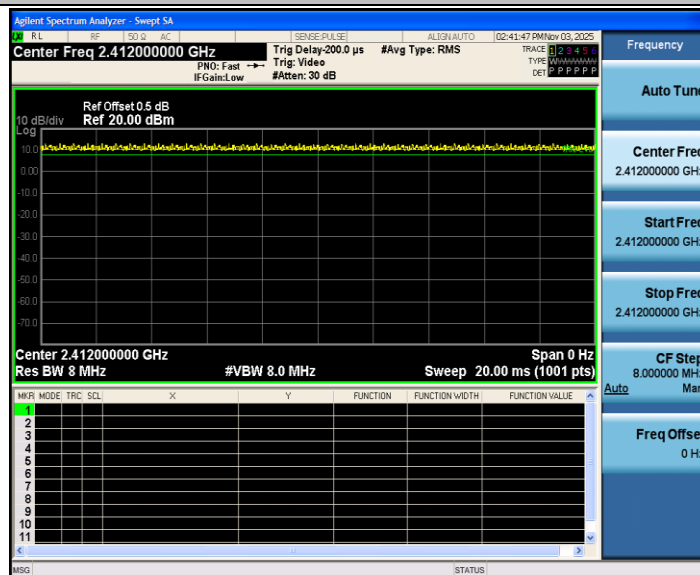
11B_Ant1_2437



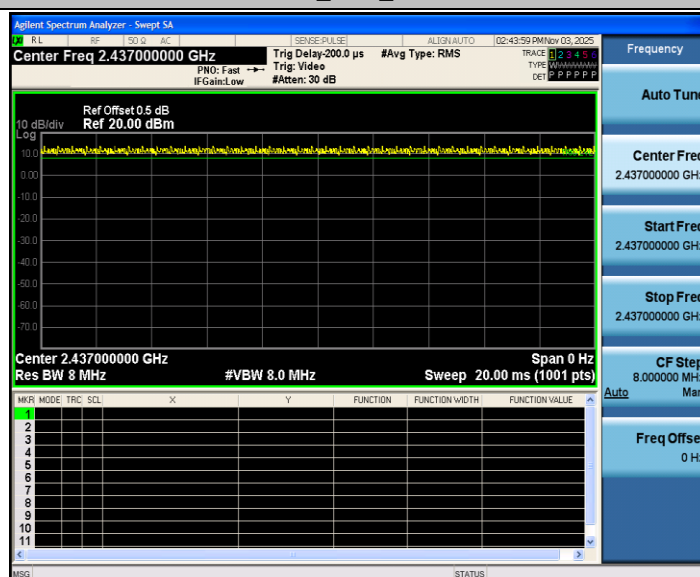
11B_Ant1_2462



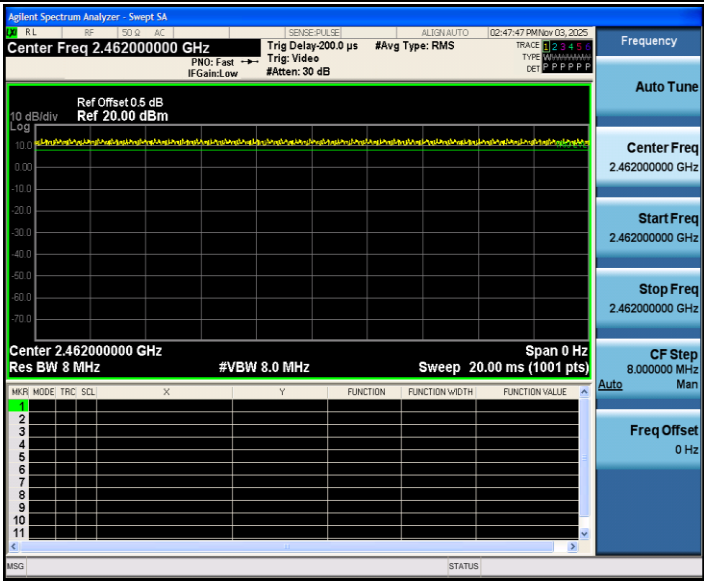
11G_Ant1_2412



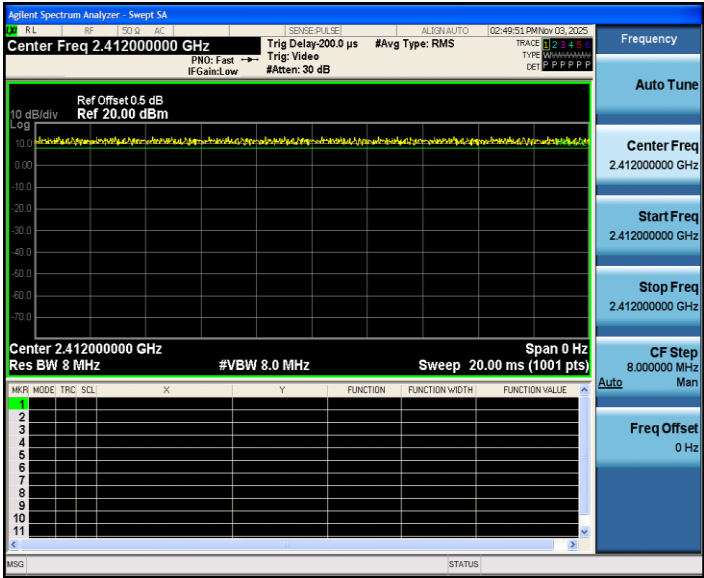
11G_Ant1_2437



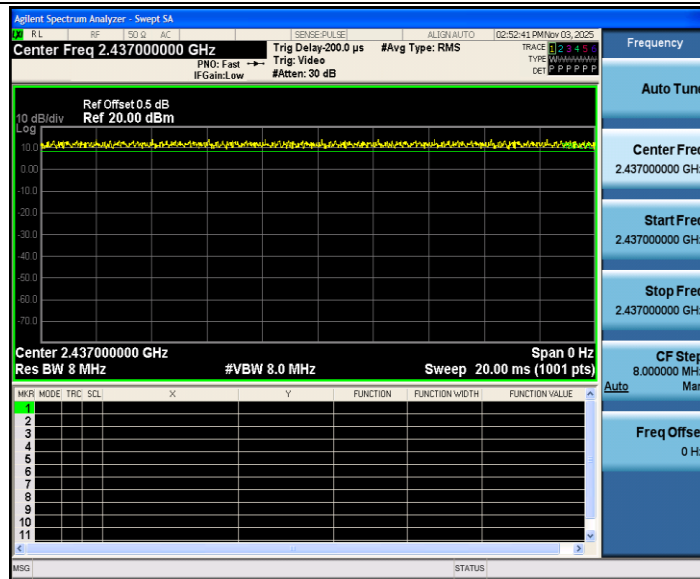
11G_Ant1_2462



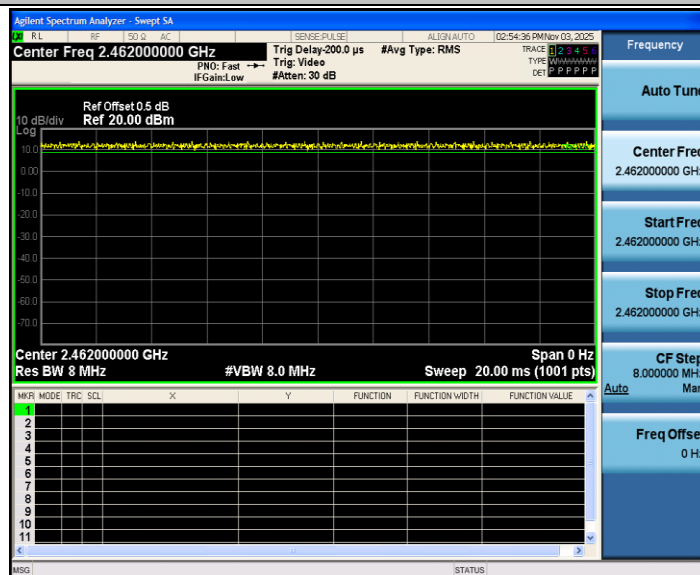
11N20SISO_Ant1_2412



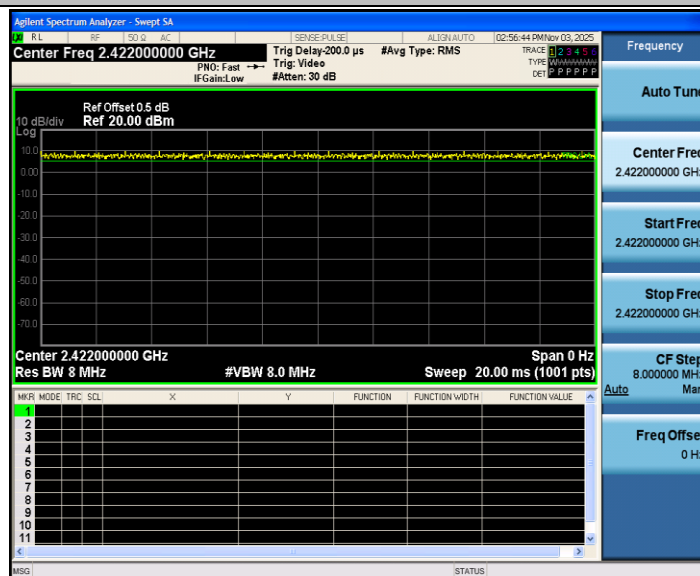
11N20SISO_Ant1_2437



11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



Appendix RF Test Data for 2.4GWIFI ANT2

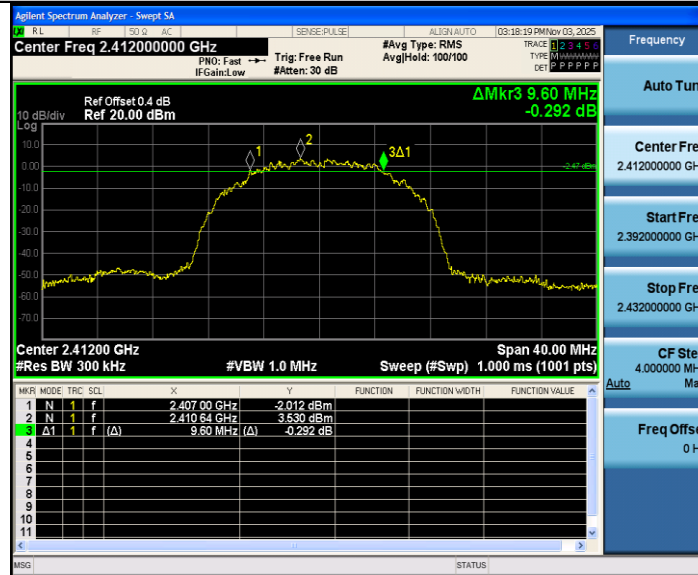
Appendix A: DTS Bandwidth

Test Result

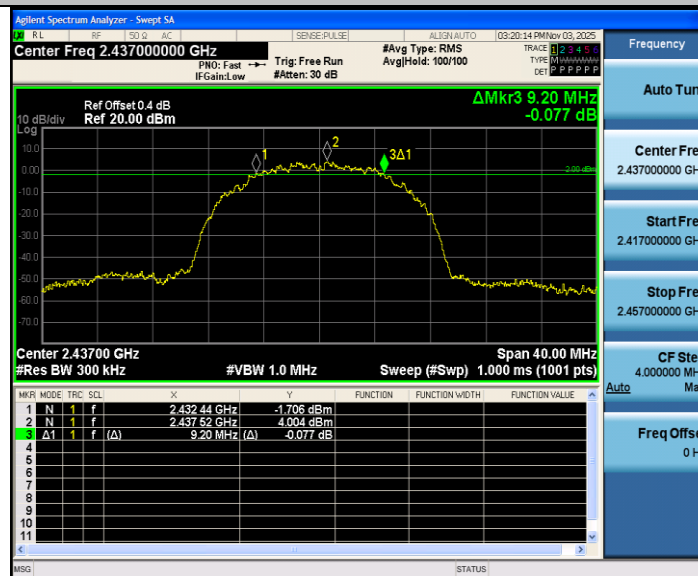
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	9.600	2407.000	2416.600	0.5	PASS
		2437	9.200	2432.440	2441.640	0.5	PASS
		2462	9.120	2457.480	2466.600	0.5	PASS
11G	Ant2	2412	16.360	2403.880	2420.240	0.5	PASS
		2437	16.360	2428.880	2445.240	0.5	PASS
		2462	16.280	2453.880	2470.160	0.5	PASS
11N20SISO	Ant2	2412	17.360	2403.360	2420.720	0.5	PASS
		2437	17.440	2428.320	2445.760	0.5	PASS
		2462	17.240	2453.440	2470.680	0.5	PASS
11N40SISO	Ant2	2422	33.840	2405.280	2439.120	0.5	PASS
		2437	34.000	2420.120	2454.120	0.5	PASS
		2452	34.000	2435.040	2469.040	0.5	PASS

Test Graphs

11B_Ant2_2412



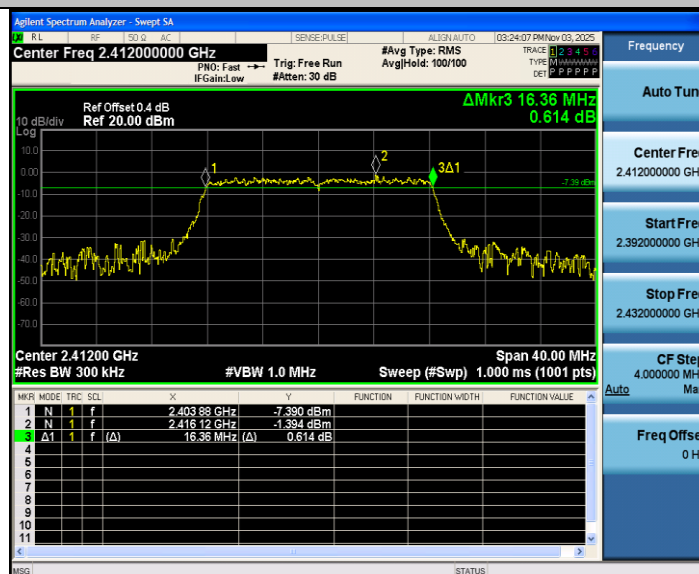
11B_Ant2_2437



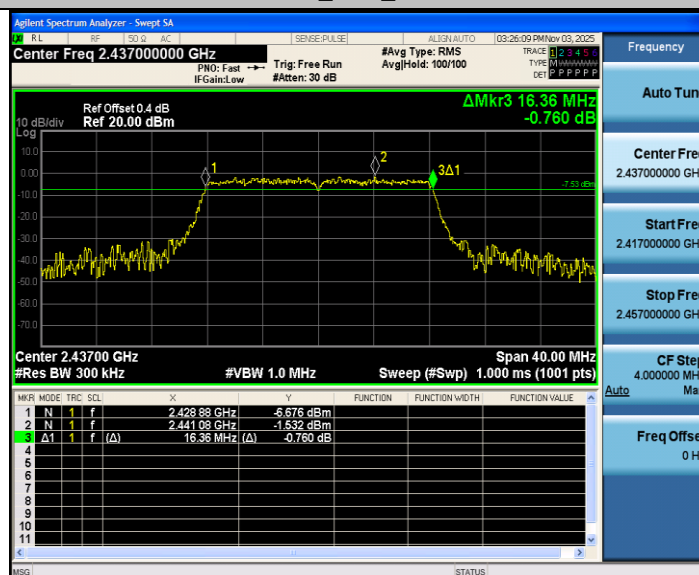
11B_Ant2_2462



11G_Ant2_2412



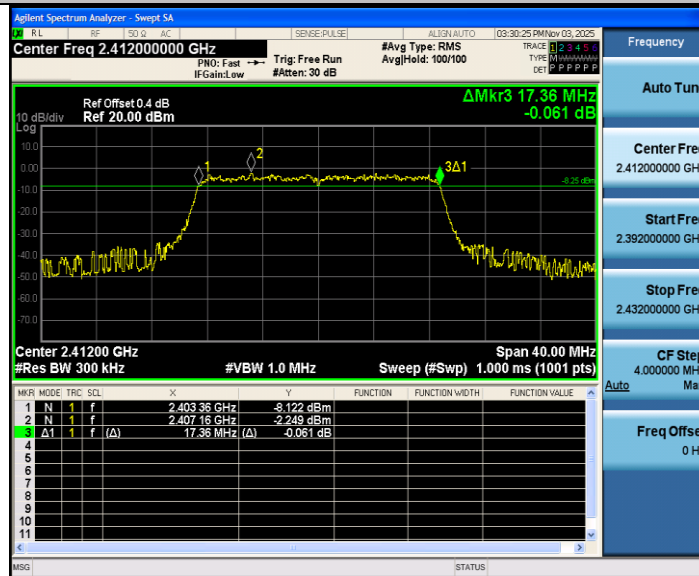
11G_Ant2_2437



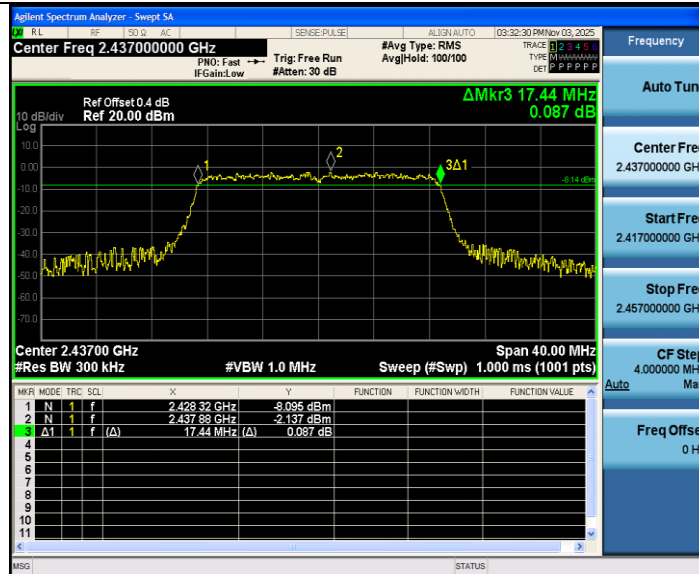
11G_Ant2_2462



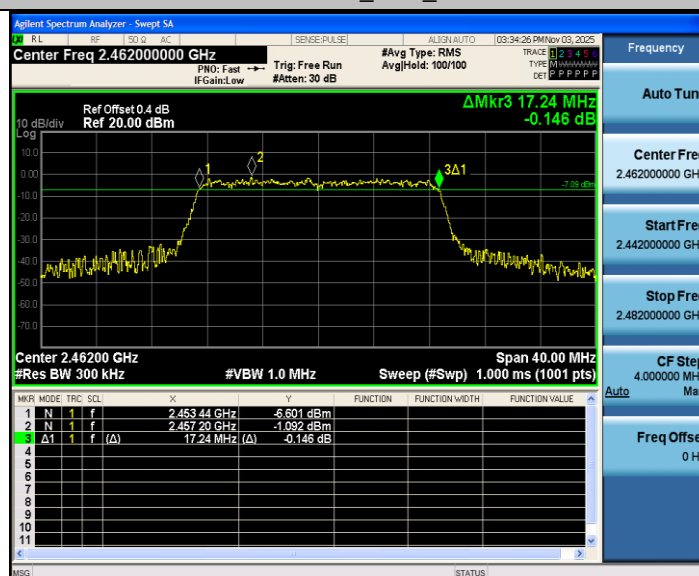
11N20SISO_Ant2_2412



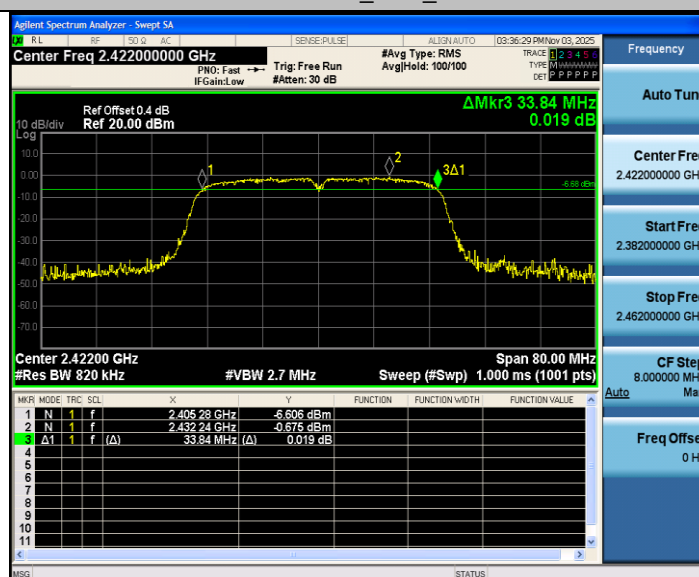
11N20SISO_Ant2_2437



11N20SISO_Ant2_2462



11N40SISO_Ant2_2422



11N40SISO_Ant2_243z

Agilent Spectrum Analyzer - Swept SA

Center Freq **2.437000000 GHz** #Avg Type: RMS AvgHold: 100/100
 PNO: Fast → Trig: Free Run IFGain: Low #Atten: 30 dB TYPE: RHHHMMH DET: PPPPPP

Ref Offset 0.4 dB ΔMkr3 34.00 MHz 0.362 dBm
 Ref 20.00 dBm -7.00 dBm

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	-	f	2.420 12 GHz	-7.039 dBm			
2	N	-	f	2.447 40 GHz	-1.080 dBm			
3	Δ	1	f (Δ)	34.00 MHz (Δ)	0.362 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Center 2.43700 GHz Span 80.00 MHz
#Res BW 820 kHz #VBW 2.7 MHz Sweep (#Swp) 1.000 ms (1001 pts)

Frequency
Auto Tune
Center Freq 2.437000000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.477000000 GHz
CF Step 8.000000 MHz Man
Freq Offset 0 Hz

MSG STATUS

11N40SISO_Ant2_2452

Agilent Spectrum Analyzer - Sweep SA

Center Freq 2.452000000 GHz

Ref Offset 0.4 dB
Ref 20.00 dBm

Span 80.00 MHz

#Res BW 820 kHz

#VBW 2.7 MHz

Sweep (#Swp) 1.000 ms (1001 pts)

Frequency

Auto Tune

Center Freq 2.452000000 GHz

Start Freq 2.412000000 GHz

Stop Freq 2.492000000 GHz

CF Step 8.000000 MHz

Auto Man

Freq Offset 0 Hz

10 dB/div

Log

1

2

3Δ1

ΔMkr3 34.00 MHz
0.502 dB

1

2

3

4

5

6

7

8

9

10

11

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.435 04 GHz	-6.857 dBm			
2	N	1	f	2.460 00 GHz	-6.886 dBm			
3	Δ1	1	f (Δ)	34.00 MHz (Δ)	0.502 dB			
4								
5								
6								
7								
8								
9								
10								
11								

MSG

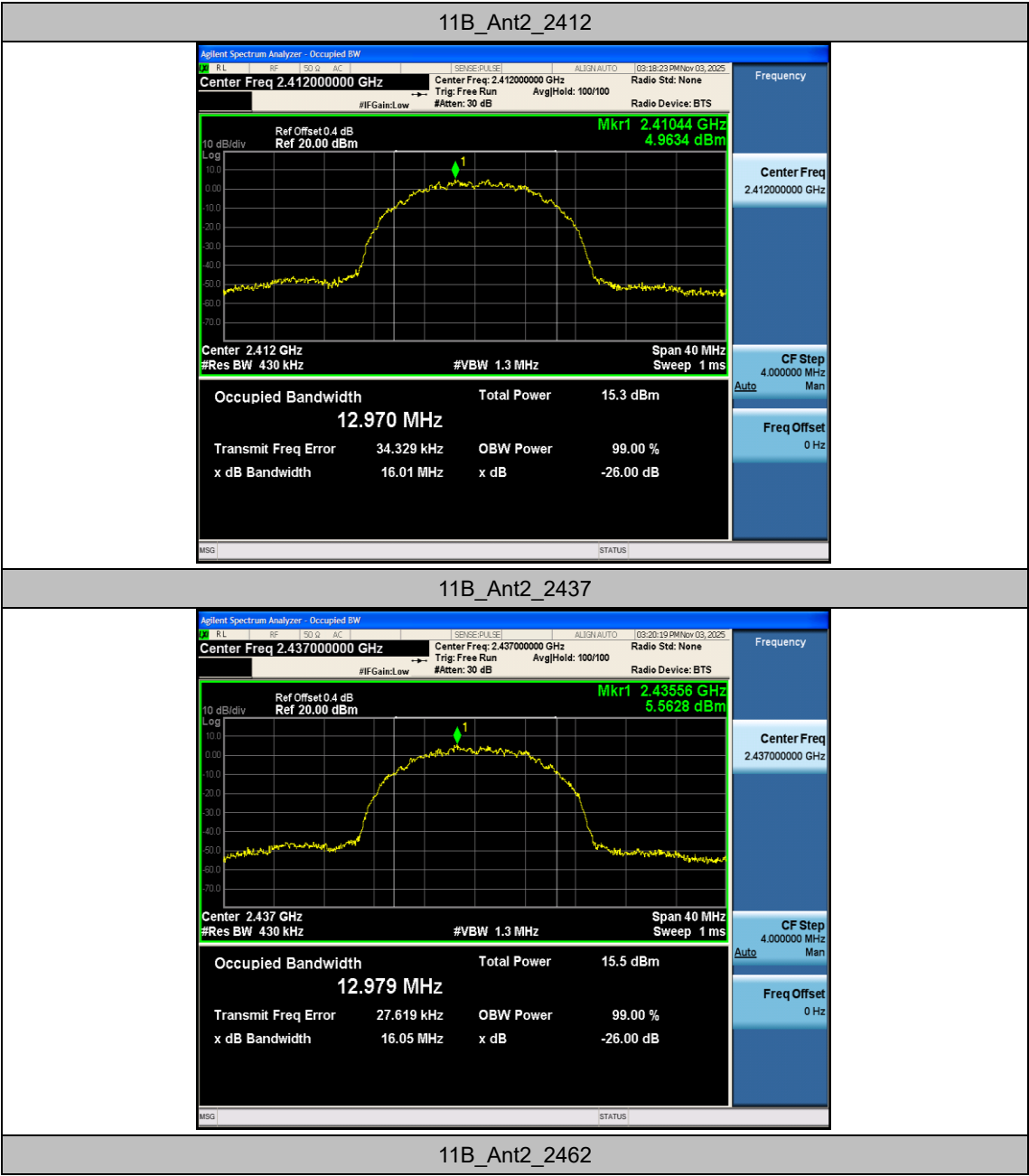
STATUS

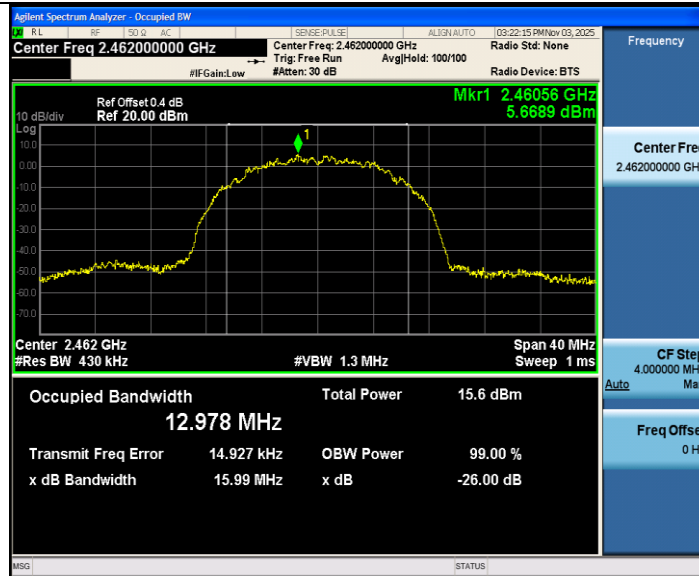
Appendix B: Occupied Channel Bandwidth

Test Result

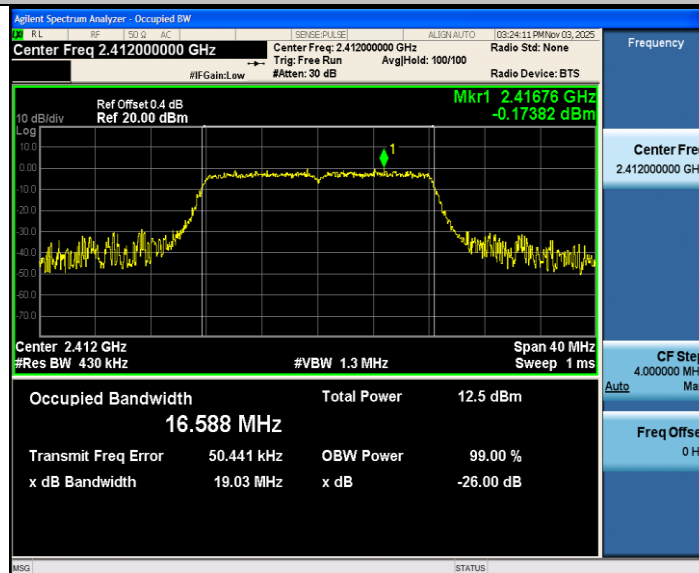
TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	12.970	2405.5493	2418.5193	---	---
		2437	12.979	2430.5381	2443.5171	---	---
		2462	12.978	2455.5259	2468.5039	---	---
11G	Ant2	2412	16.588	2403.7564	2420.3444	---	---
		2437	16.566	2428.7541	2445.3201	---	---
		2462	16.623	2453.7120	2470.3350	---	---
11N20SISO	Ant2	2412	17.462	2403.3182	2420.7802	---	---
		2437	17.422	2428.3346	2445.7566	---	---
		2462	17.429	2453.3121	2470.7411	---	---
11N40SISO	Ant2	2422	34.749	2404.7743	2439.5233	---	---
		2437	34.750	2419.7350	2454.4850	---	---
		2452	34.842	2434.6641	2469.5061	---	---

Test Graphs

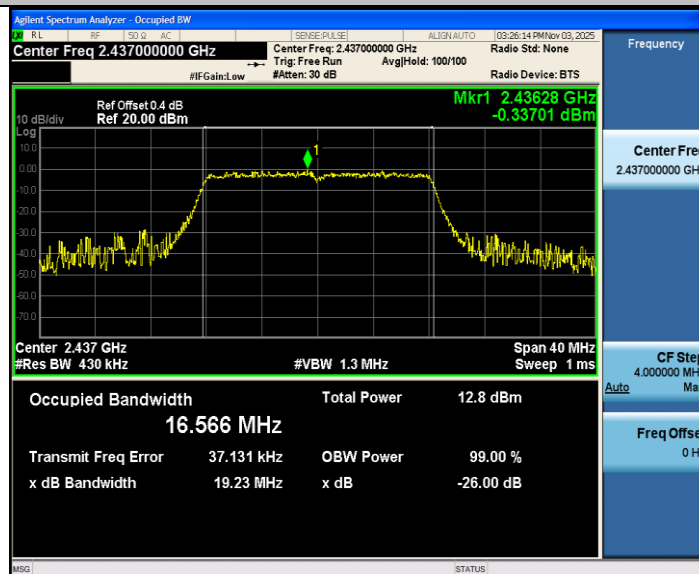




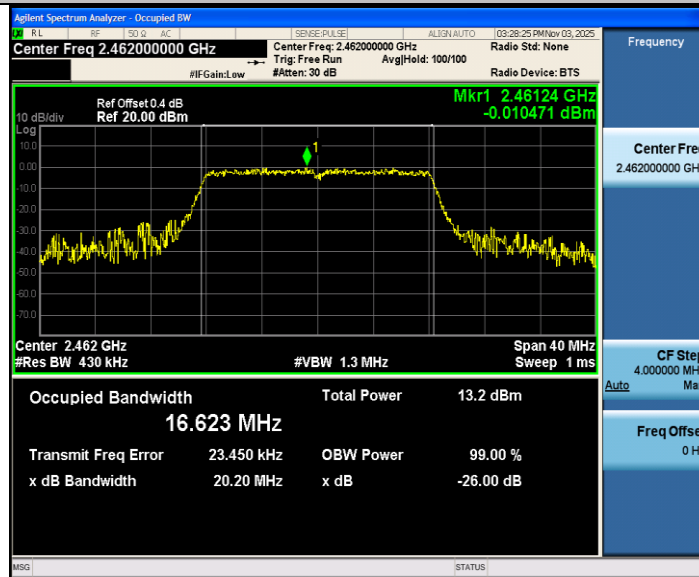
11G_Ant2_2412



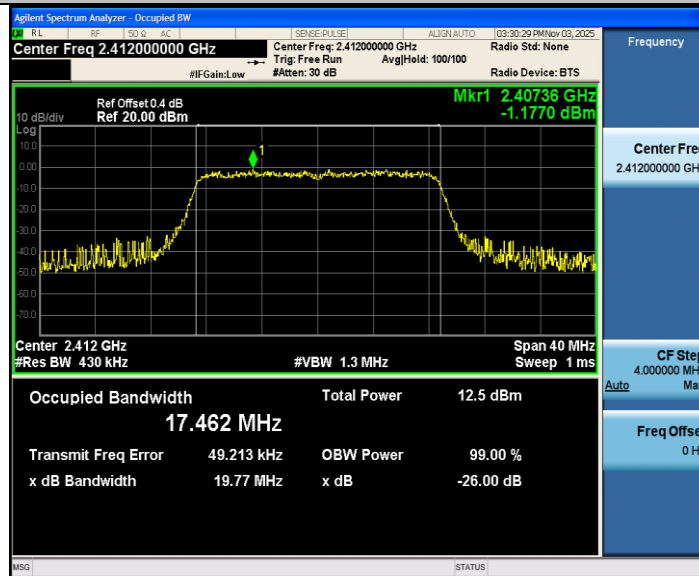
11G_Ant2_2437



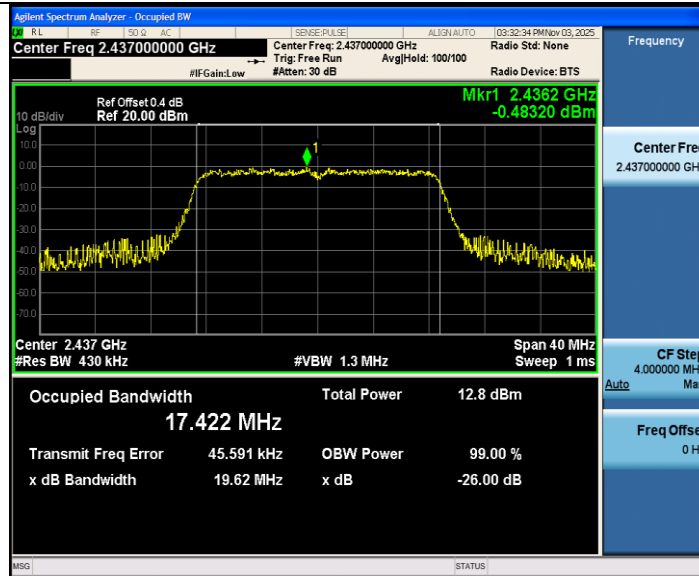
11G_Ant2_2462



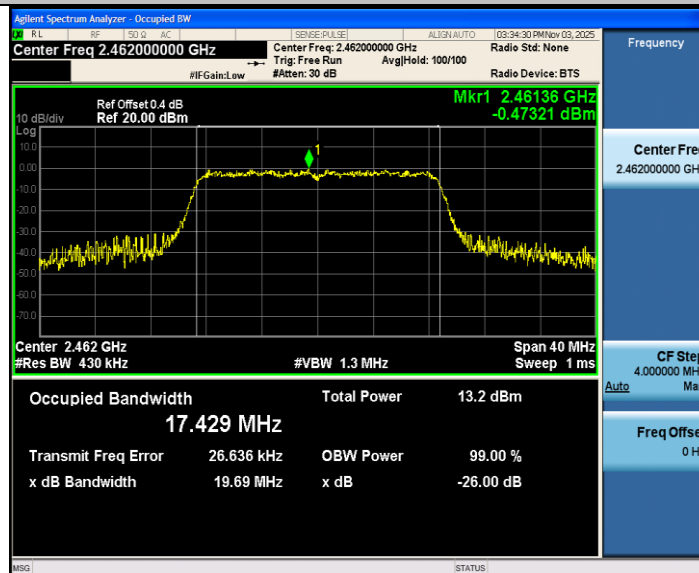
11N20SISO_Ant2_2412



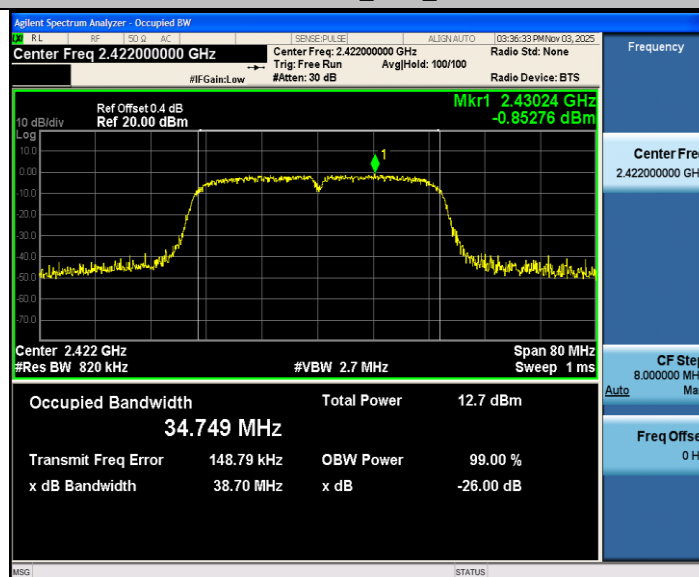
11N20SISO_Ant2_2437



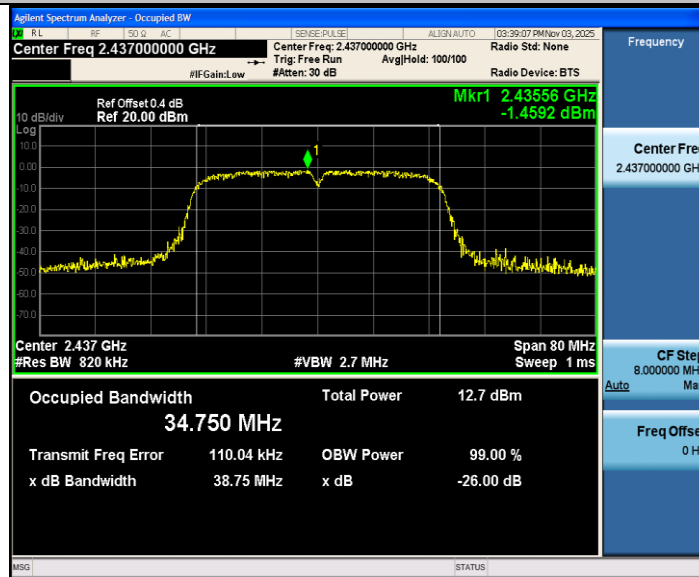
11N20SISO_Ant2_2462



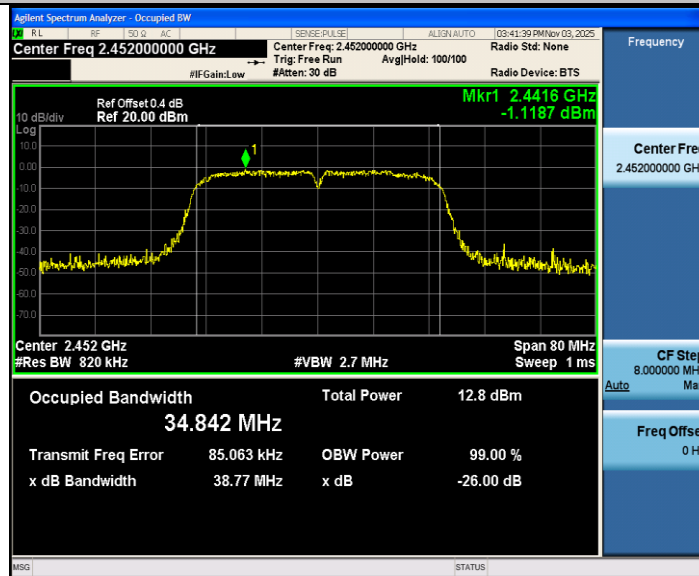
11N40SISO_Ant2_2422



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant2	2412	14.99	≤30.00	PASS
		2437	15.07	≤30.00	PASS
		2462	14.98	≤30.00	PASS
11G	Ant2	2412	13.33	≤30.00	PASS
		2437	13.71	≤30.00	PASS
		2462	13.98	≤30.00	PASS
11N20SISO	Ant2	2412	13.75	≤30.00	PASS
		2437	13.93	≤30.00	PASS
		2462	14.26	≤30.00	PASS
11N40SISO	Ant2	2422	12.88	≤30.00	PASS
		2437	13.05	≤30.00	PASS
		2452	13.04	≤30.00	PASS

Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-14.18	≤8.00	PASS
		2437	-13.76	≤8.00	PASS
		2462	-13.81	≤8.00	PASS
11G	Ant2	2412	-21.06	≤8.00	PASS
		2437	-20.79	≤8.00	PASS
		2462	-20.77	≤8.00	PASS
11N20SISO	Ant2	2412	-20.51	≤8.00	PASS
		2437	-20.43	≤8.00	PASS
		2462	-20.03	≤8.00	PASS
11N40SISO	Ant2	2422	-22.51	≤8.00	PASS
		2437	-21.76	≤8.00	PASS
		2452	-21.90	≤8.00	PASS

Test Graphs

11B_Ant2_2412



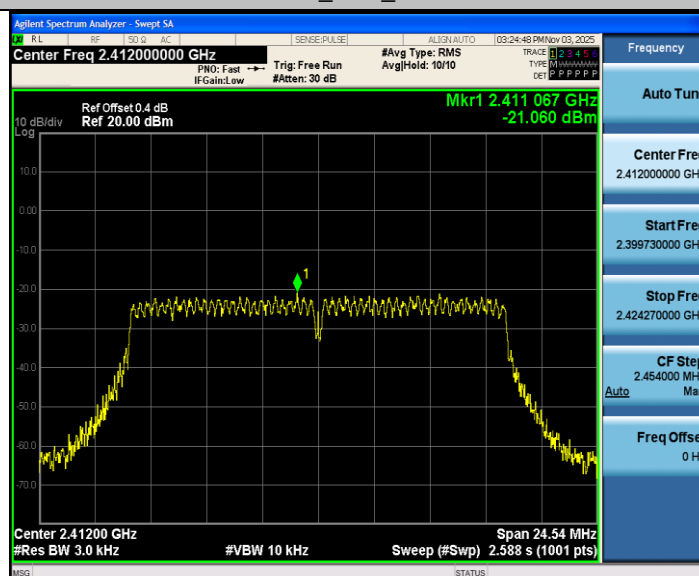
11B_Ant2_2437



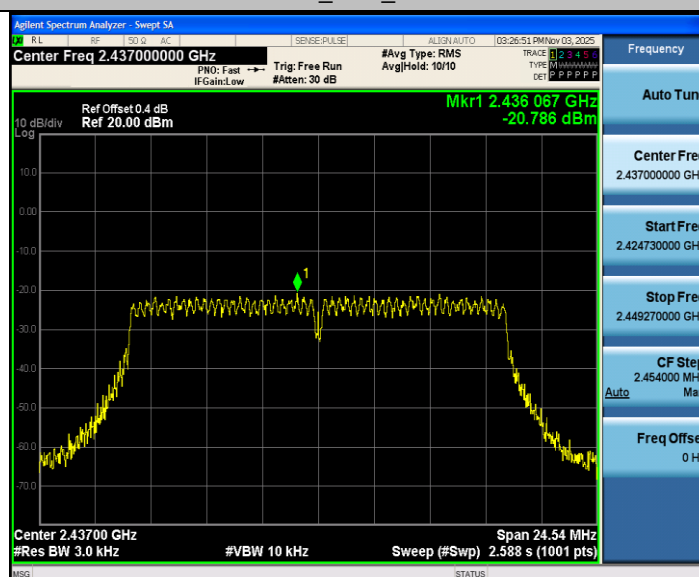
11B_Ant2_2462



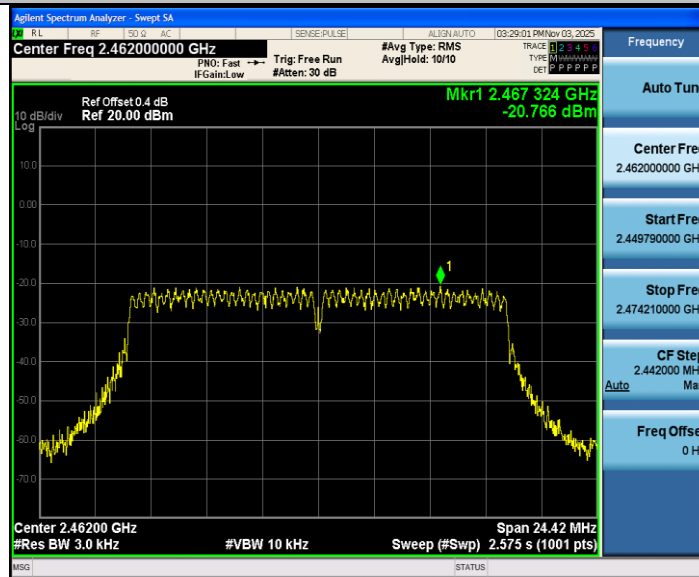
11G_Ant2_2412



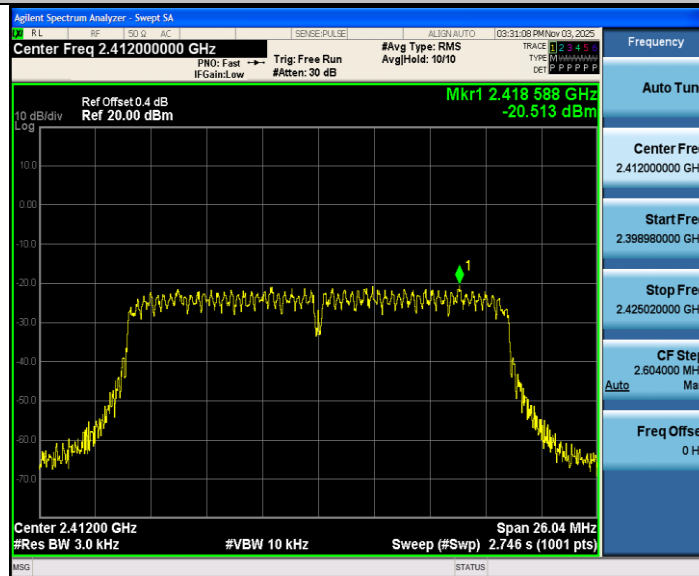
11G_Ant2_2437



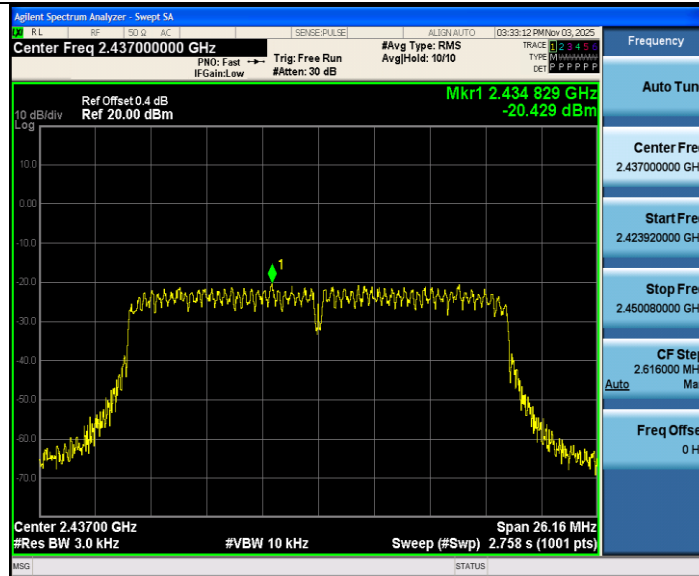
11G_Ant2_2462



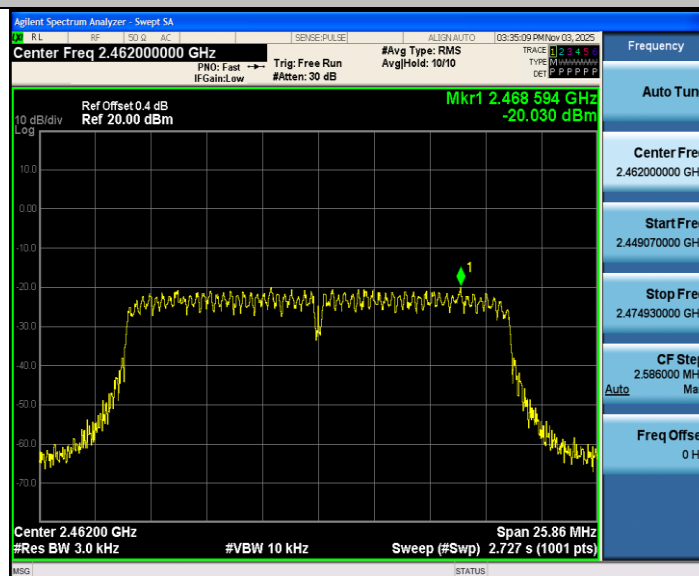
11N20SISO_Ant2_2412



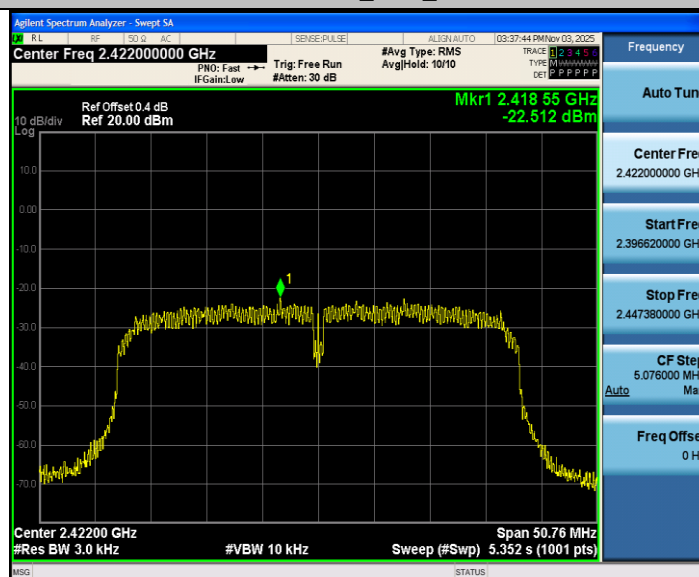
11N20SISO_Ant2_2437



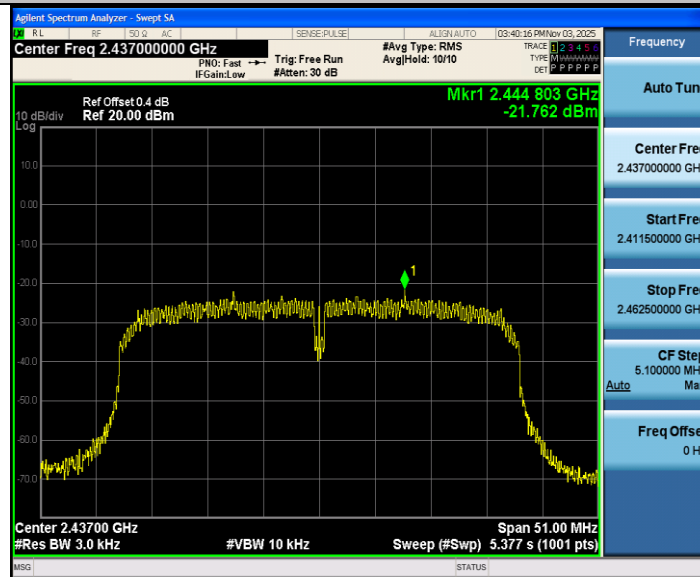
11N20SISO_Ant2_2462



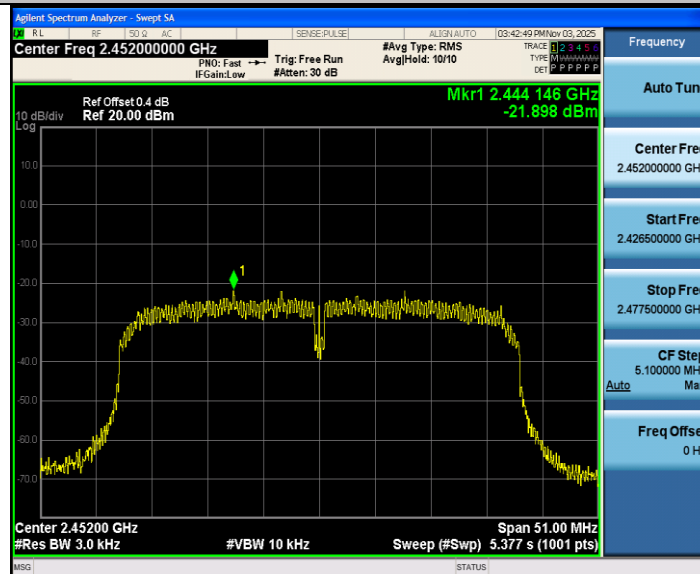
11N40SISO_Ant2_2422



11N40SISO_Ant2_2437



11N40SISO_Ant2_2452



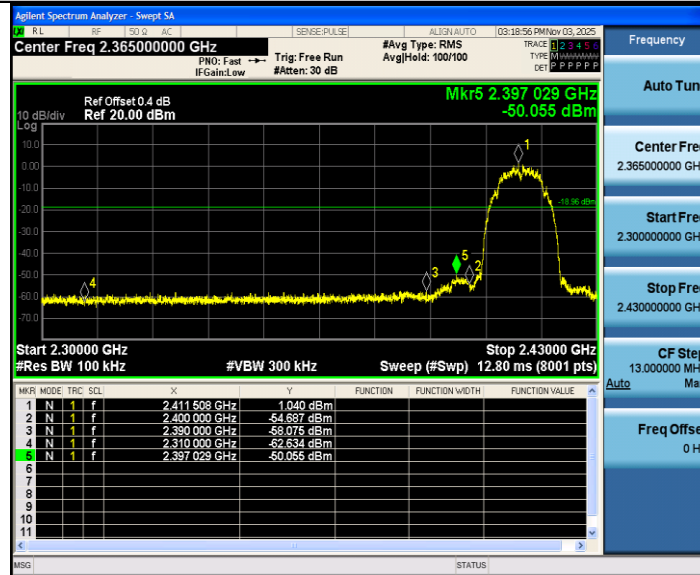
Appendix E: Band edge measurements

Test Result

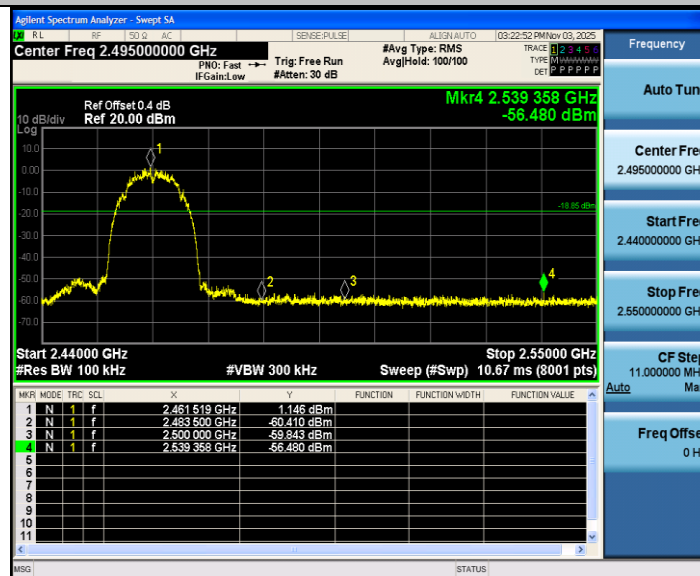
TestMode	Antenna	Channel	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant2	Low	2412	1.04	-50.06	≤-18.96	PASS
		High	2462	1.15	-56.48	≤-18.85	PASS
11G	Ant2	Low	2412	-6.98	-39.57	≤-26.98	PASS
		High	2462	-6.57	-49.49	≤-26.57	PASS
11N20SISO	Ant2	Low	2412	-7.07	-43	≤-27.07	PASS
		High	2462	-6.90	-50.23	≤-26.9	PASS
11N40SISO	Ant2	Low	2422	-10.00	-48.31	≤-30	PASS
		High	2452	-10.37	-52.49	≤-30.37	PASS

Test Graphs

11B_Ant2_Low_2412



11B_Ant2_High_2462



11G_Ant2_Low_2412