Case No. : GTS20230215013-1-9	
Ambient Condition: 23 ℃, 54 %RH, Atmos100.1Kpa,	
Test Date: 2023.3.15	**Test Engineer:** Jenny zeng

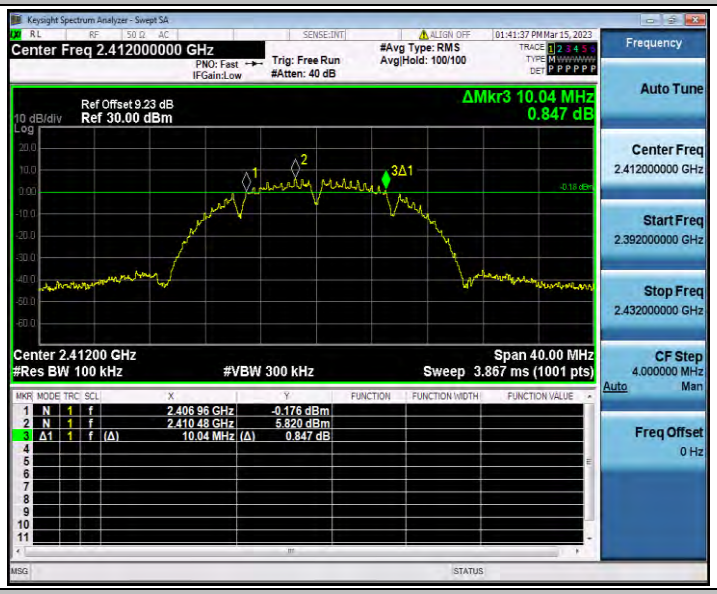
Appendix B.1: DTS Bandwidth

Test Result

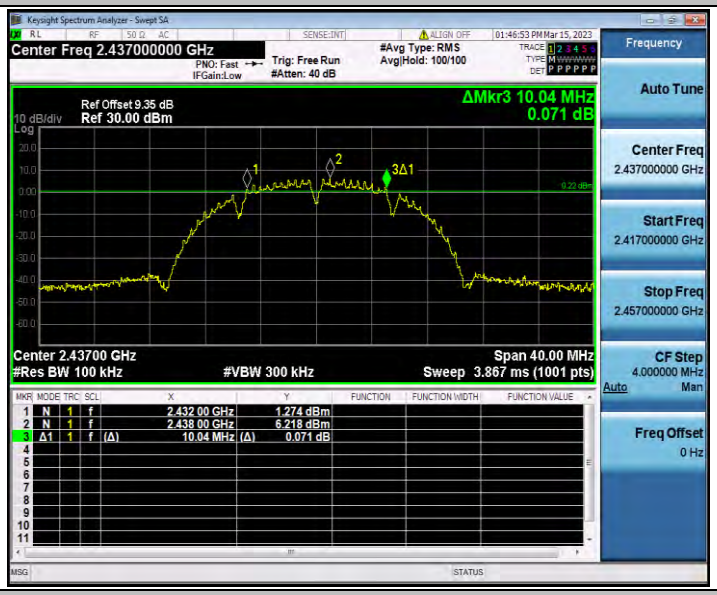
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2406.960	2417.000	0.5	PASS
		2437	10.040	2432.000	2442.040	0.5	PASS
		2462	9.600	2456.960	2466.560	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.280	2453.840	2470.120	0.5	PASS
11N20SISO	Ant1	2412	17.560	2403.200	2420.760	0.5	PASS
		2437	17.280	2428.520	2445.800	0.5	PASS
		2462	17.200	2453.480	2470.680	0.5	PASS
11N40SISO	Ant1	2422	35.360	2404.480	2439.840	0.5	PASS
		2437	35.760	2419.400	2455.160	0.5	PASS
		2452	35.440	2434.400	2469.840	0.5	PASS

Test Graphs

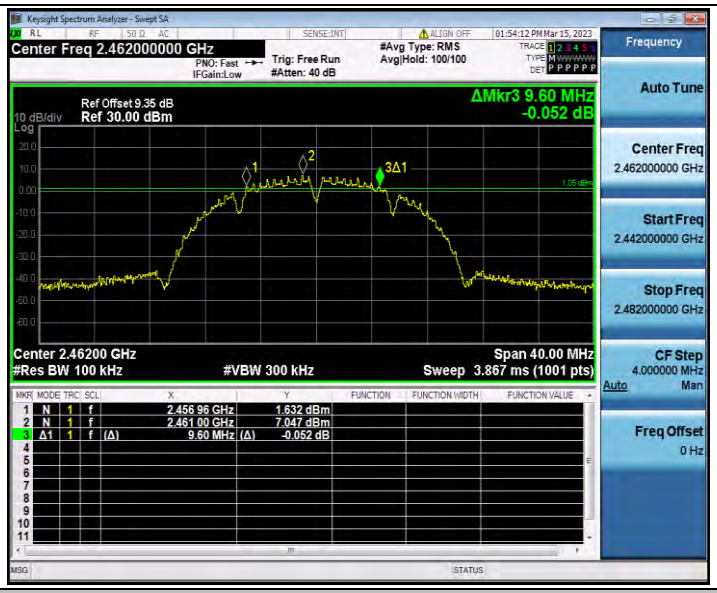
11B_Ant1_2412



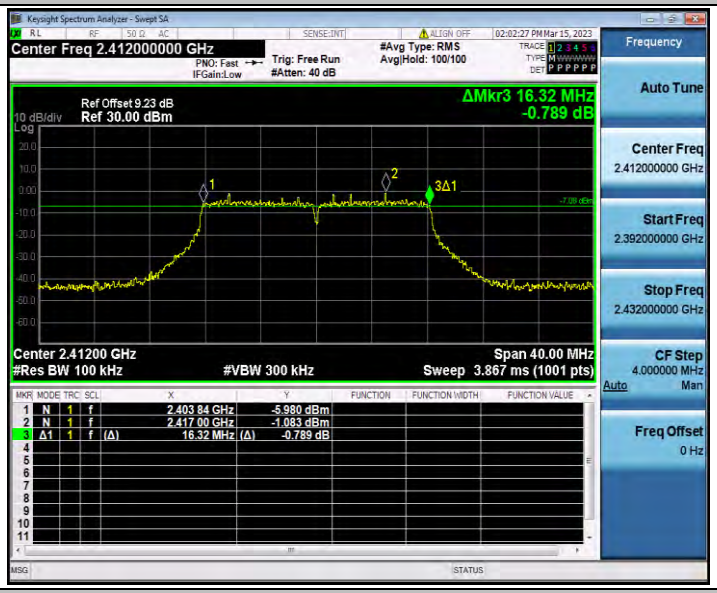
11B_Ant1_2437



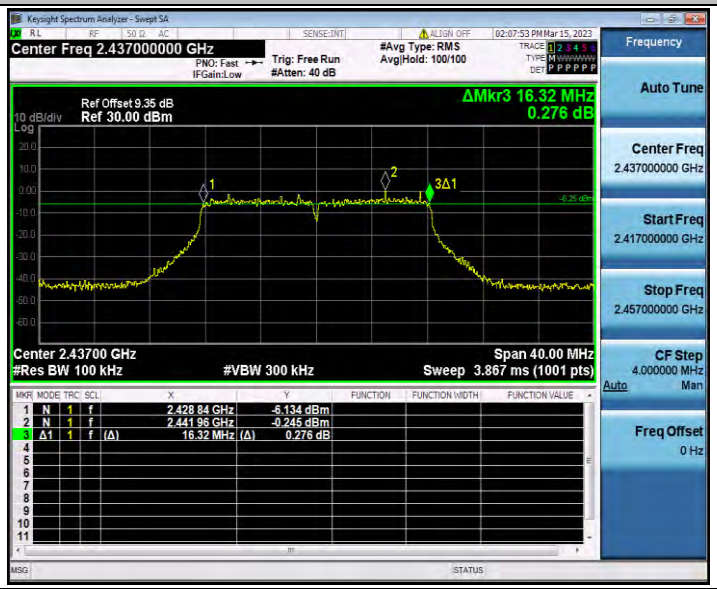
11B_Ant1_2462



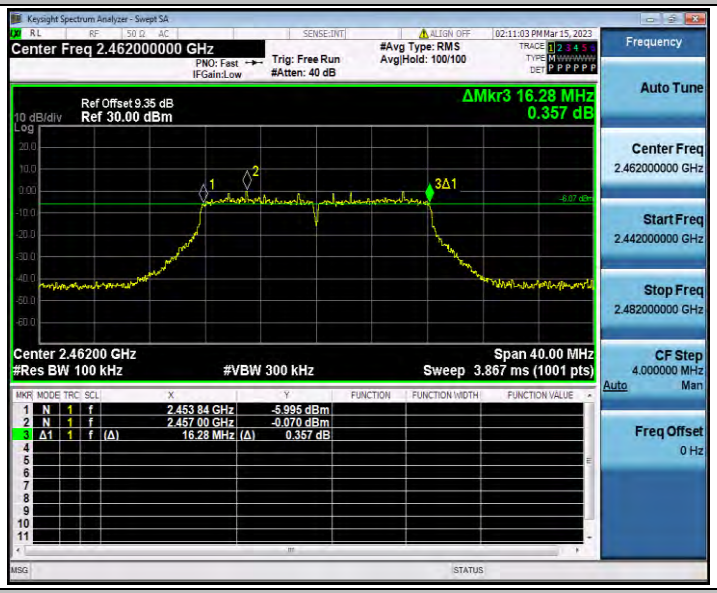
11G_Ant1_2412



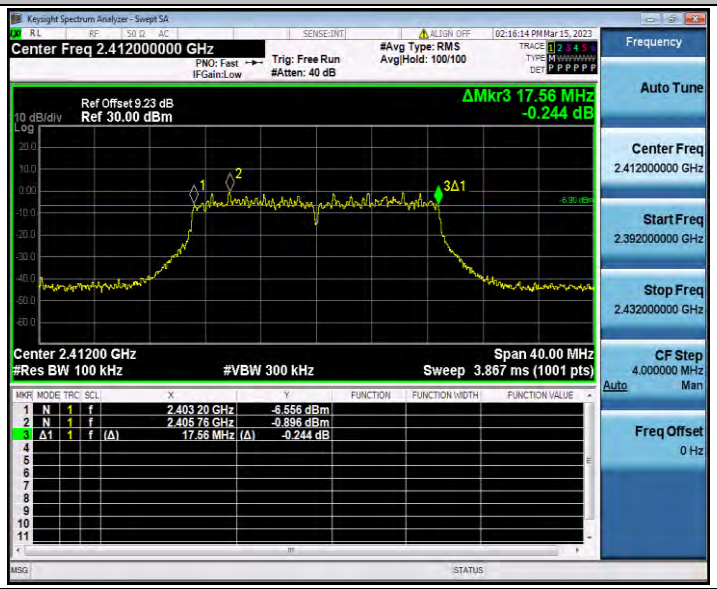
11G_Ant1_2437



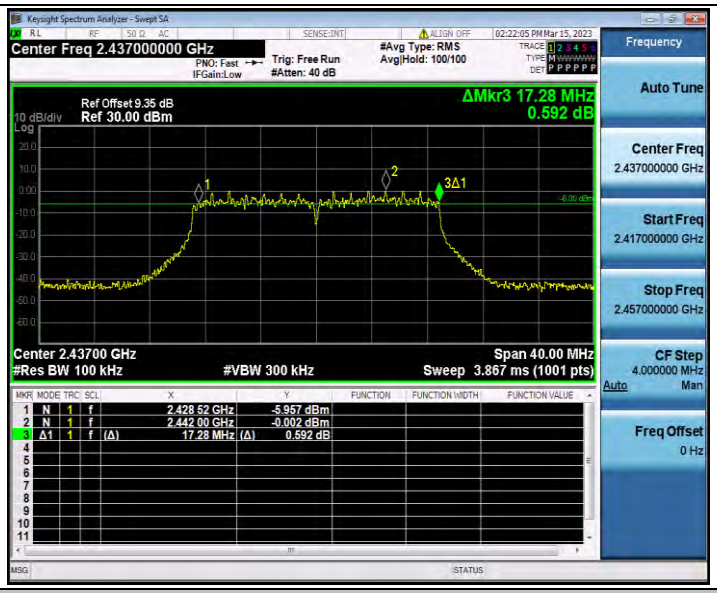
11G_Ant1_2462



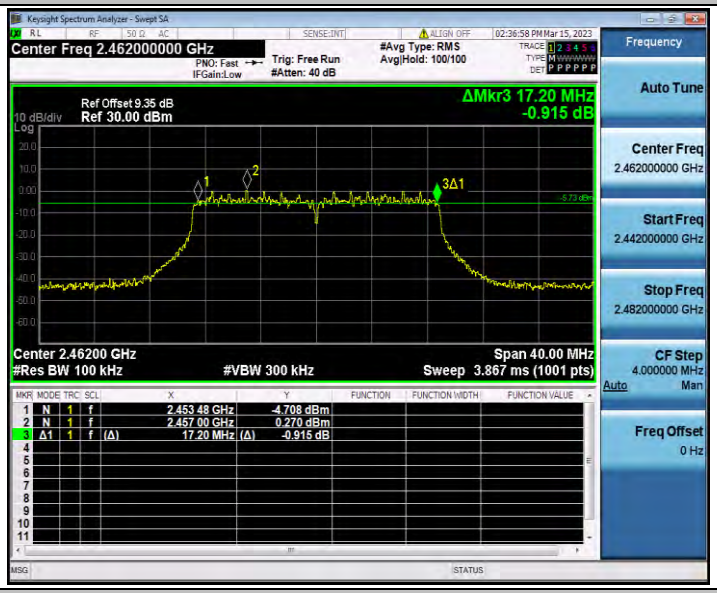
11N20SISO_Ant1_2412



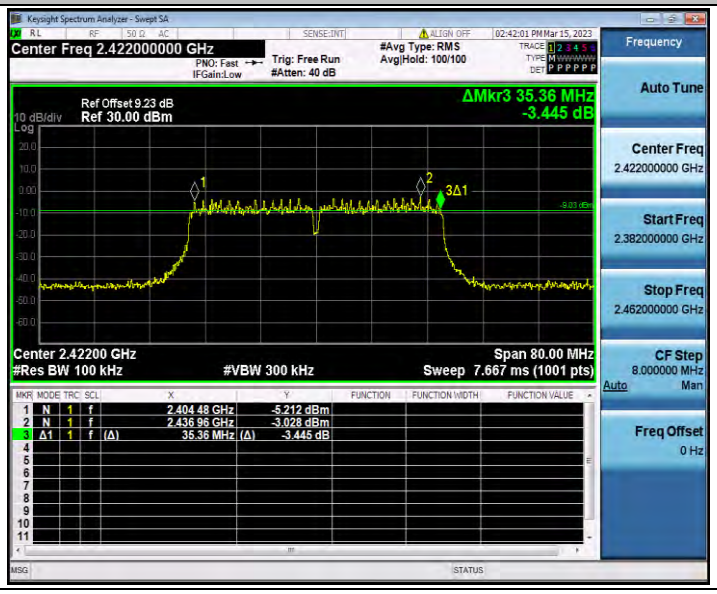
11N20SISO_Ant1_2437

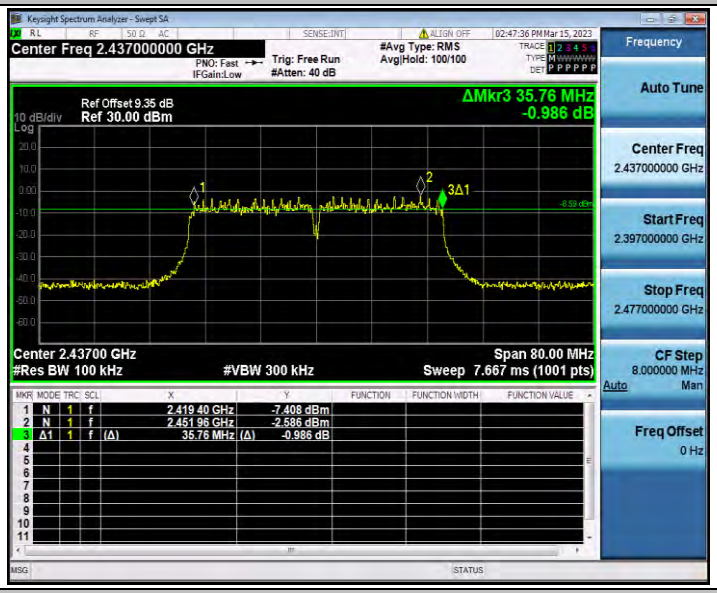


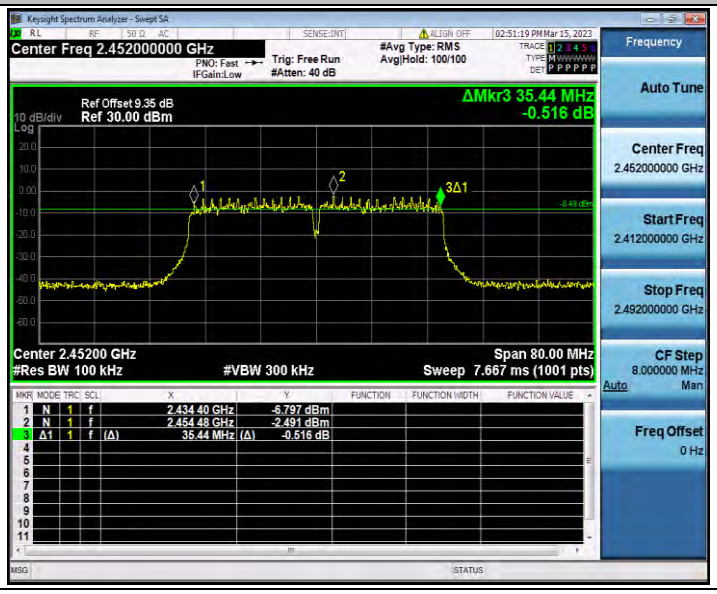
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


Appendix B.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	15.054	2404.468	2419.522	---	---
		2437	14.998	2429.527	2444.525	---	---
		2462	15.004	2454.473	2469.477	---	---
11G	Ant1	2412	16.911	2403.560	2420.471	---	---
		2437	16.865	2428.600	2445.465	---	---
		2462	16.940	2453.494	2470.434	---	---
11N20SISO	Ant1	2412	17.892	2402.979	2420.871	---	---
		2437	17.836	2428.094	2445.930	---	---
		2462	17.757	2453.095	2470.852	---	---
11N40SISO	Ant1	2422	36.248	2403.874	2440.122	---	---
		2437	36.252	2418.985	2455.237	---	---
		2452	36.144	2433.984	2470.128	---	---

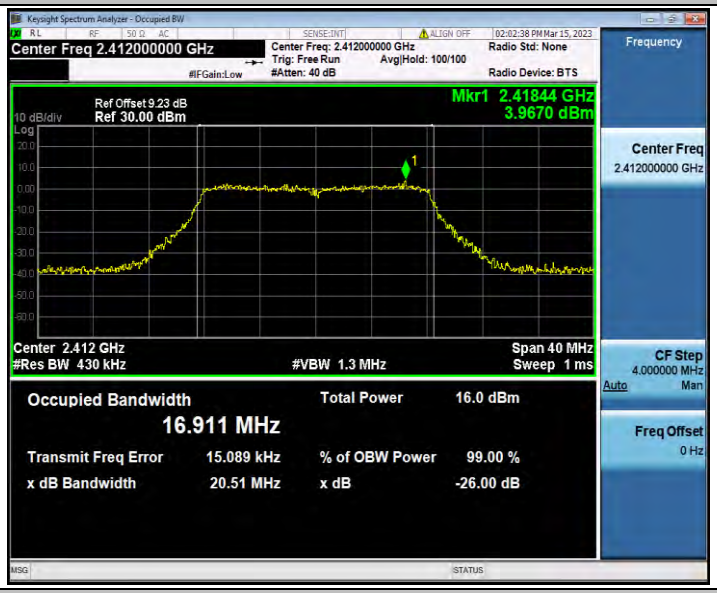
Test Graphs

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412



11G_Ant1_2437

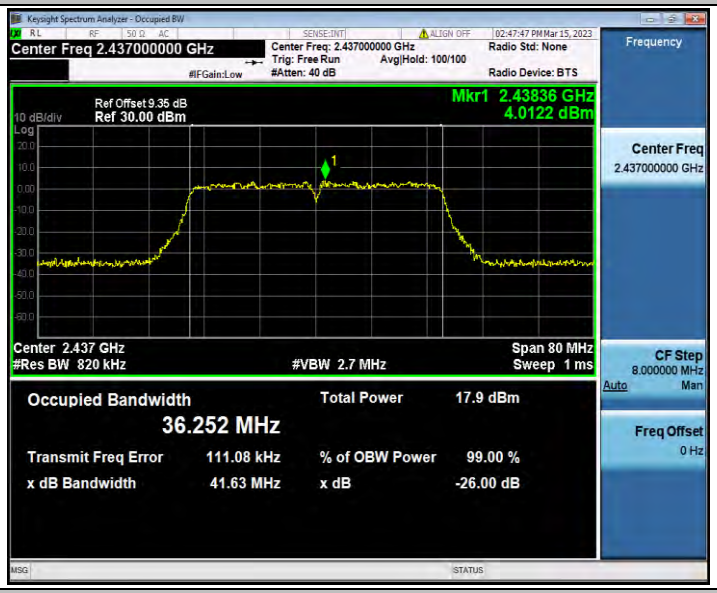
11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

11N40SISO_Ant1_2422

11N40SISO_Ant1_2437


11N40SISO_Ant1_2452

Appendix B.3: Maximum conducted output power

Test Result Peak

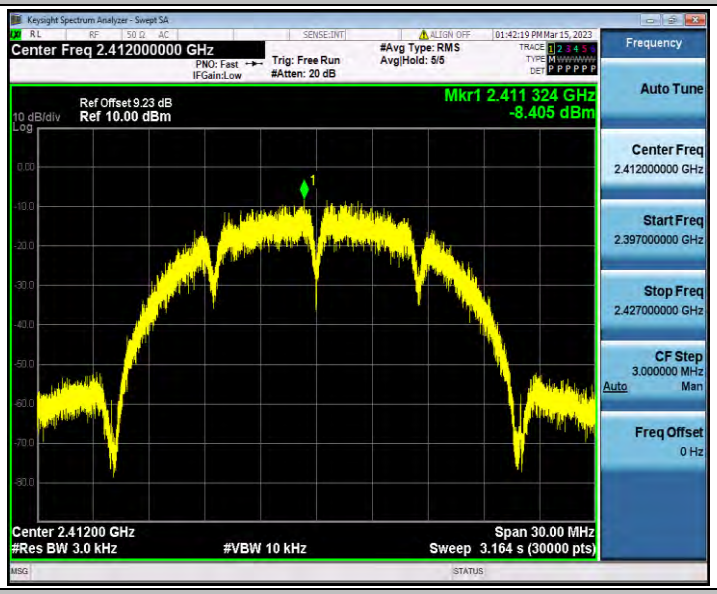
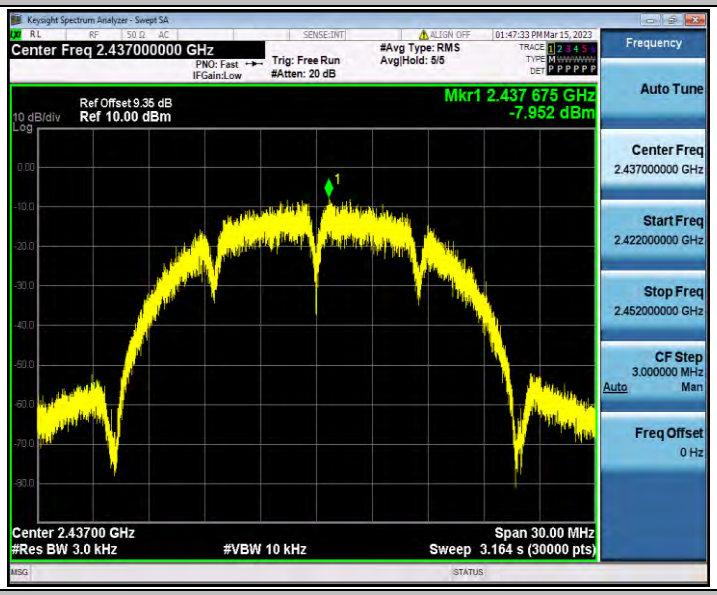
TestMode	Antenna	Frequency[MHz]	Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
11B	Ant1	2412	18.32	≤30.00	PASS
		2437	18.94	≤30.00	PASS
		2462	19.22	≤30.00	PASS
11G	Ant1	2412	17.14	≤30.00	PASS
		2437	17.92	≤30.00	PASS
		2462	18.17	≤30.00	PASS
11N20SISO	Ant1	2412	17.38	≤30.00	PASS
		2437	18.19	≤30.00	PASS
		2462	18.39	≤30.00	PASS
11N40SISO	Ant1	2422	17.59	≤30.00	PASS
		2437	18.06	≤30.00	PASS
		2452	18.21	≤30.00	PASS

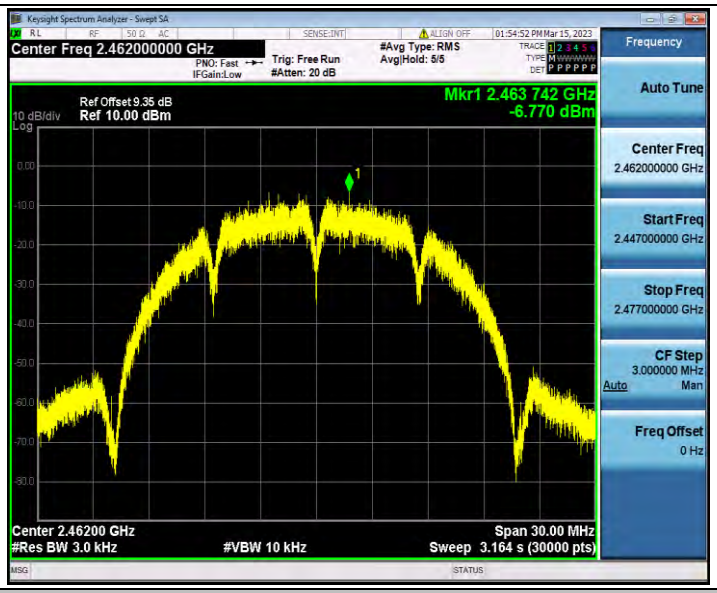
Appendix B.4: Maximum power spectral density

Test Result

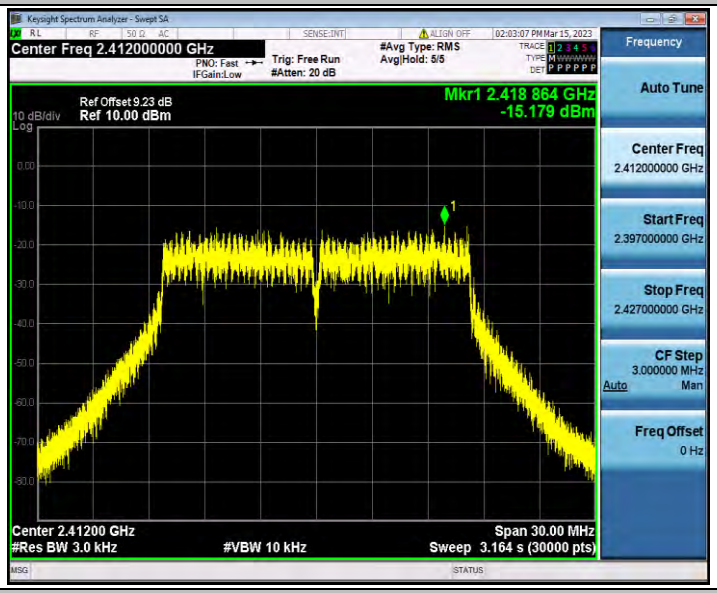
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-8.41	≤8.00	PASS
		2437	-7.95	≤8.00	PASS
		2462	-6.77	≤8.00	PASS
11G	Ant1	2412	-15.18	≤8.00	PASS
		2437	-14.01	≤8.00	PASS
		2462	-12.33	≤8.00	PASS
11N20SISO	Ant1	2412	-16.65	≤8.00	PASS
		2437	-14.7	≤8.00	PASS
		2462	-14.3	≤8.00	PASS
11N40SISO	Ant1	2422	-17.39	≤8.00	PASS
		2437	-18.17	≤8.00	PASS
		2452	-17.97	≤8.00	PASS

Test Graphs

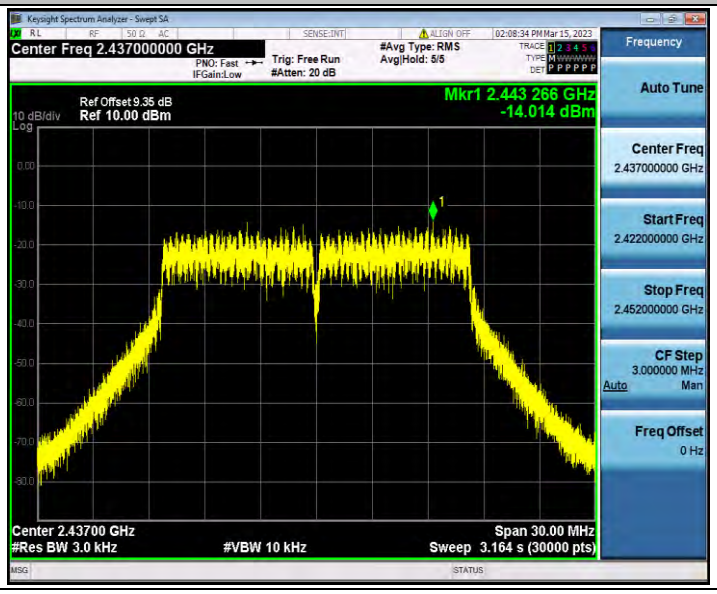
11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462



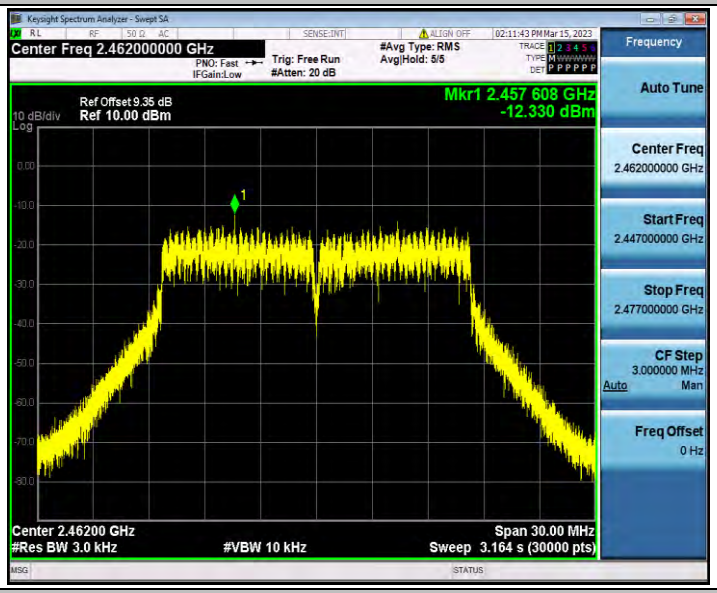
11G_Ant1_2412



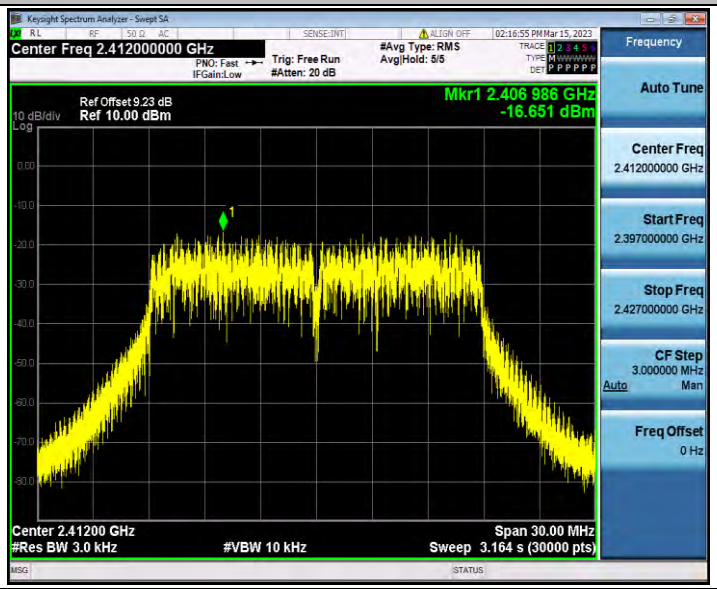
11G_Ant1_2437



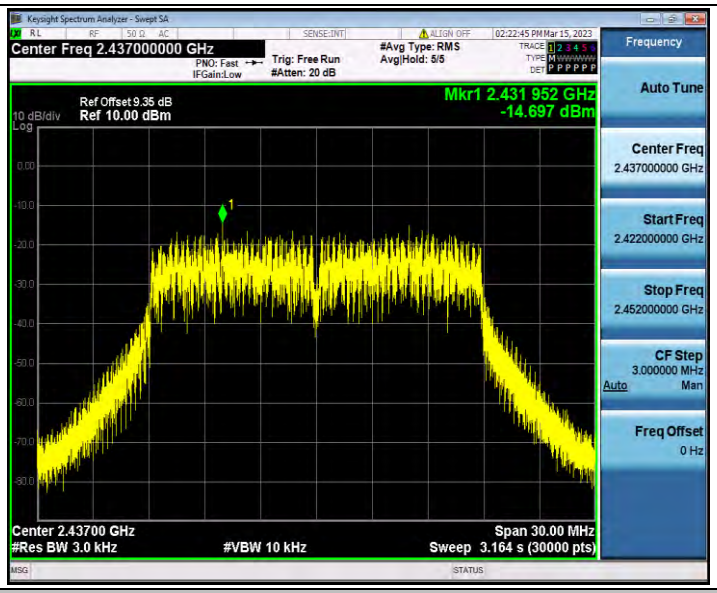
11G_Ant1_2462



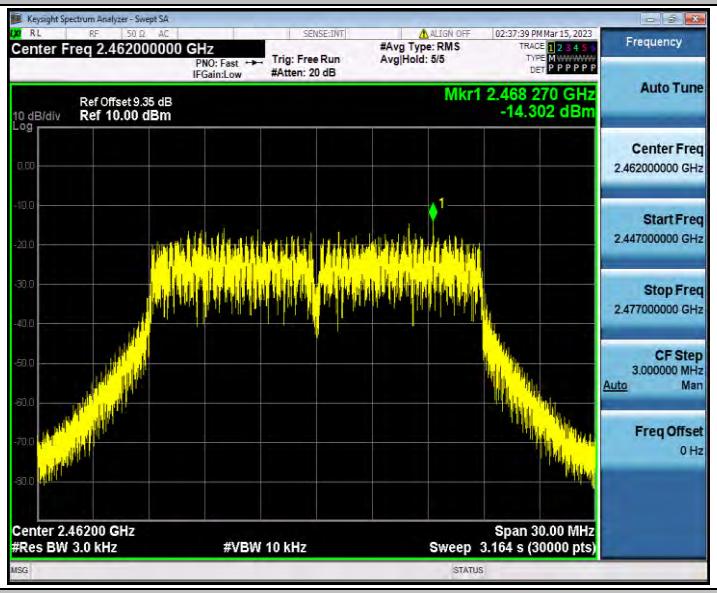
11N20SISO_Ant1_2412



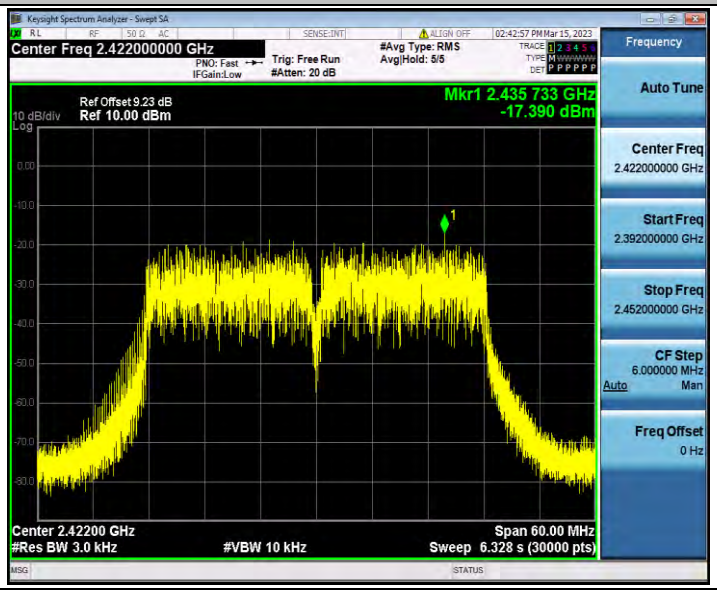
11N20SISO_Ant1_2437

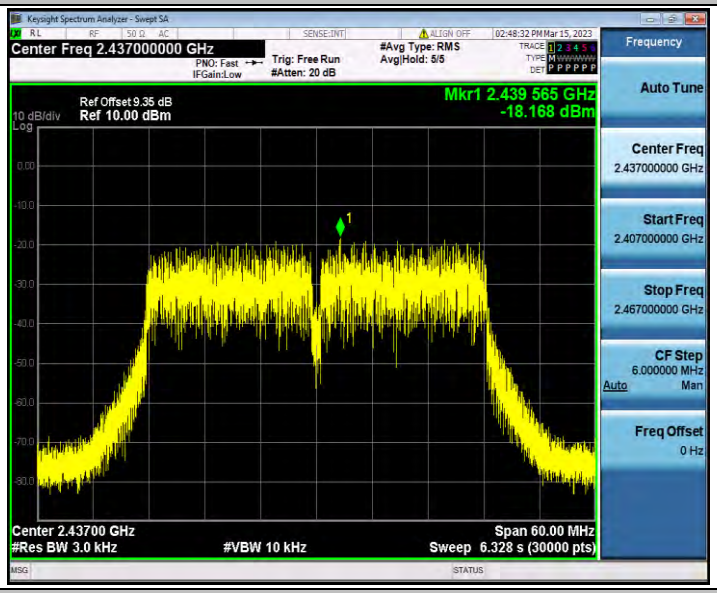


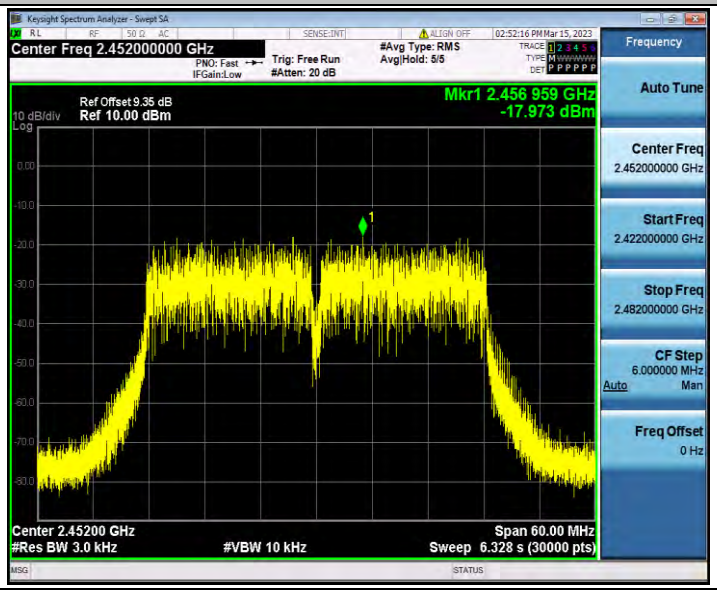
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


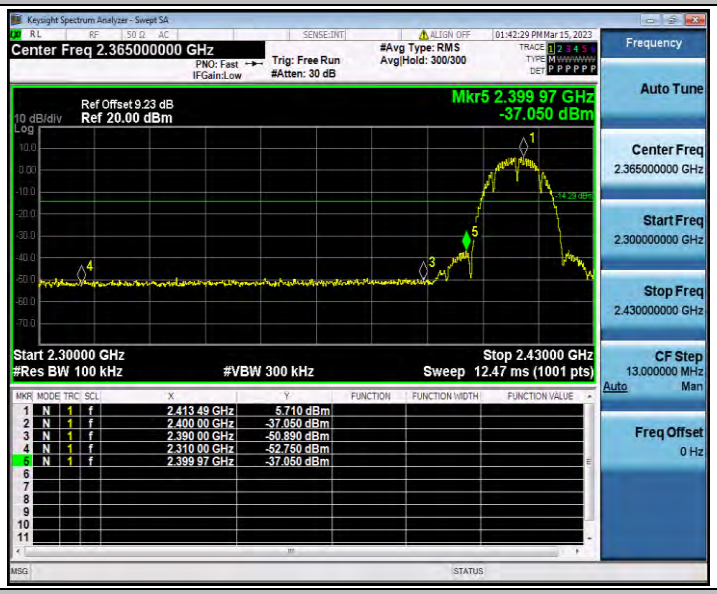
Appendix B.5: Band edge measurements

Test Result

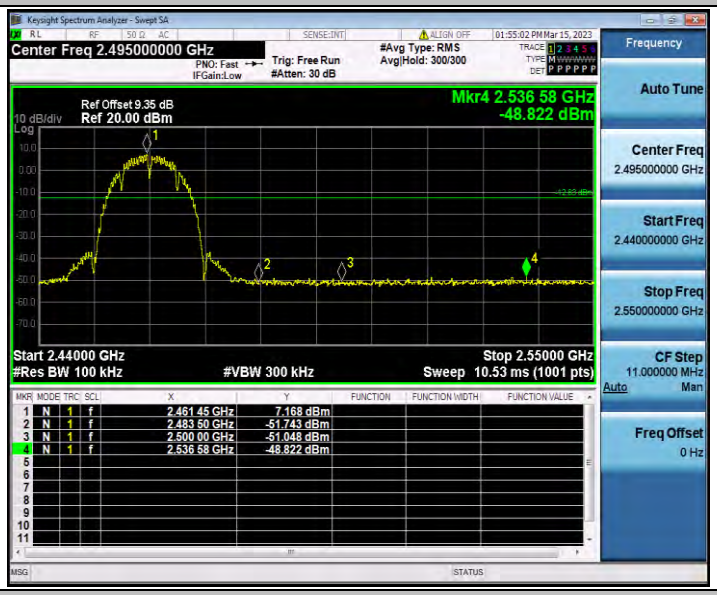
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	5.71	-37.05	≤-14.29	PASS
		High	2462	7.17	-48.82	≤-12.83	PASS
11G	Ant1	Low	2412	-1.10	-40.7	≤-21.1	PASS
		High	2462	-0.03	-48.93	≤-20.03	PASS
11N20SISO	Ant1	Low	2412	-0.81	-39.75	≤-20.81	PASS
		High	2462	0.28	-48.35	≤-19.72	PASS
11N40SISO	Ant1	Low	2422	-3.43	-40.82	≤-23.43	PASS
		High	2452	-2.46	-48.43	≤-22.46	PASS

Test Graphs

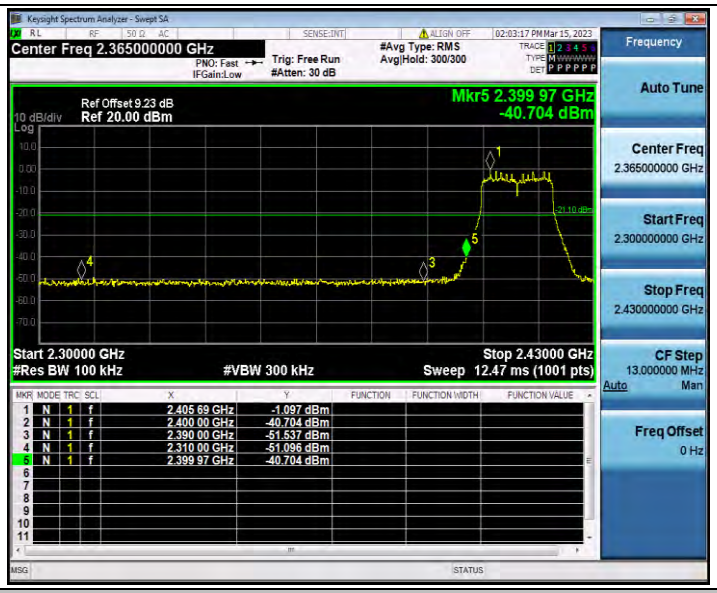
11B_Ant1_Low_2412



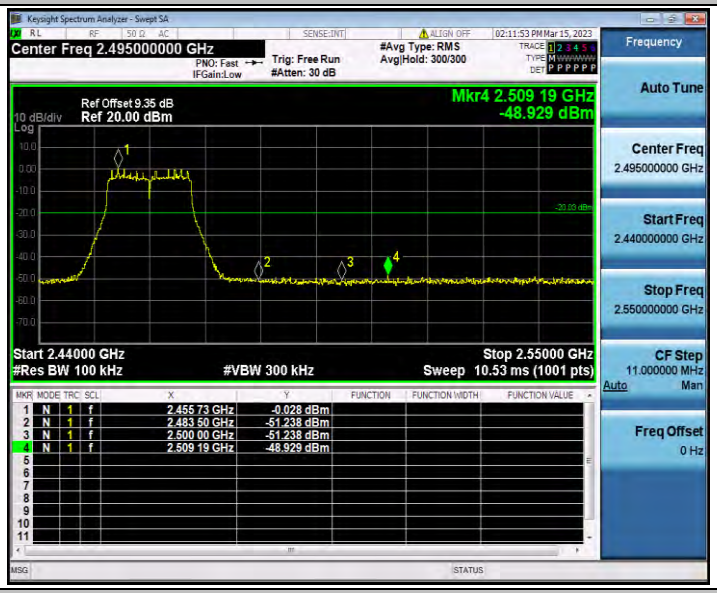
11B_Ant1_High_2462



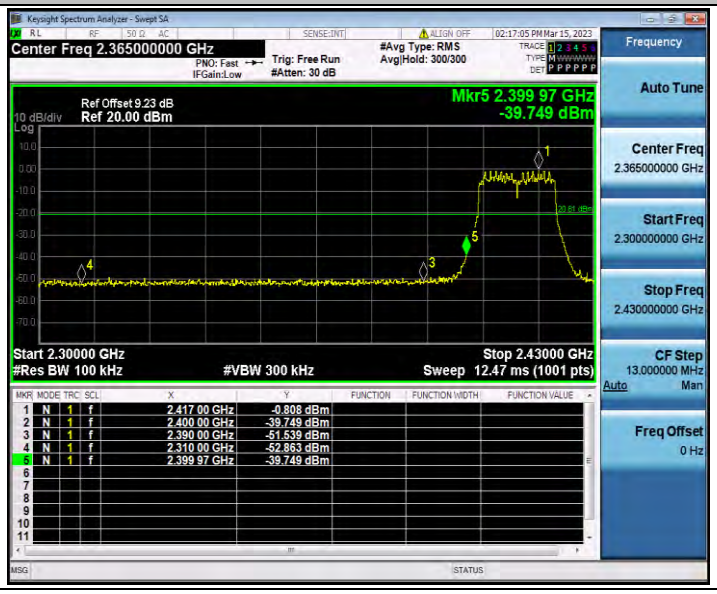
11G_Ant1_Low_2412



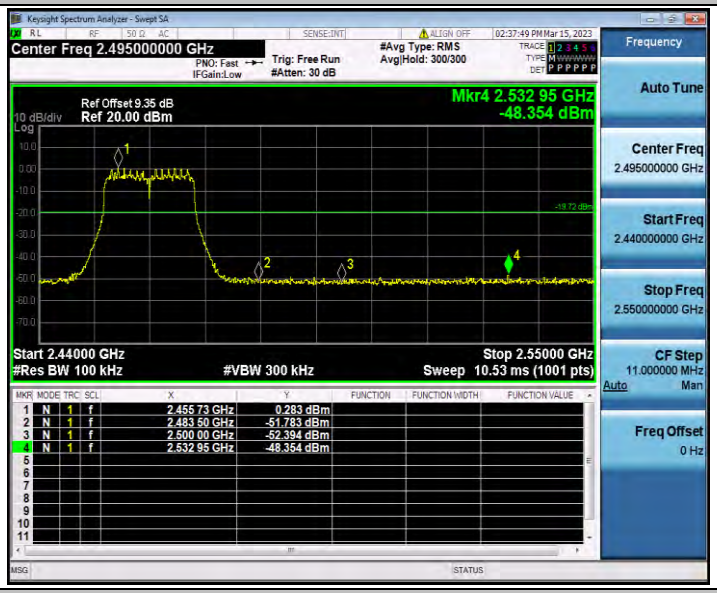
11G_Ant1_High_2462



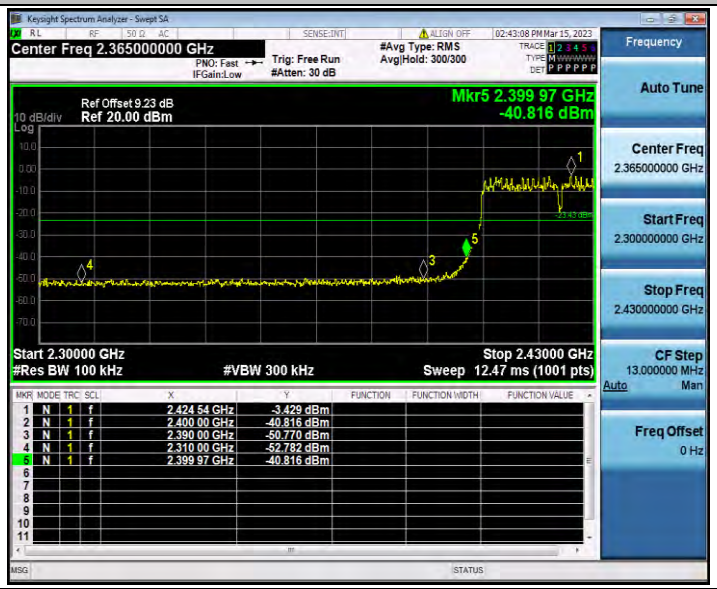
11N20SISO_Ant1_Low_2412



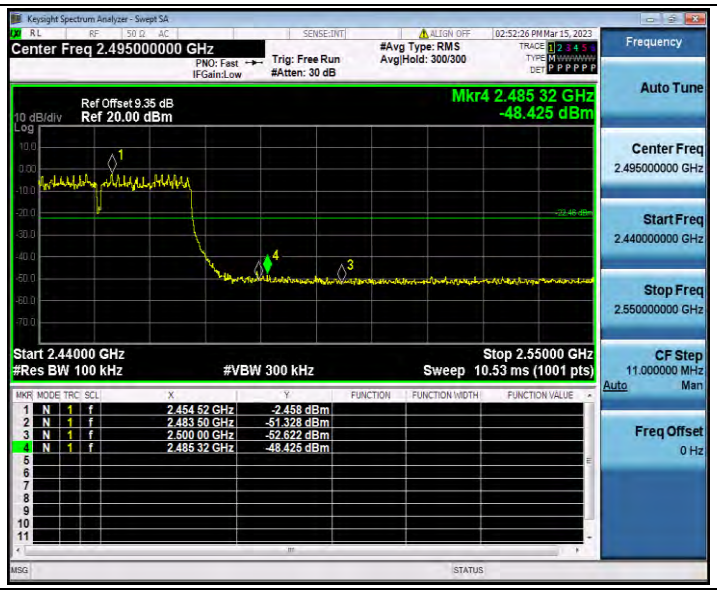
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_Ant1_High_2452


Keysight Spectrum Analyzer - Swept SA
Center Freq 2.495000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 300/300
02:52:26 PM Mar 15, 2023
Ref Offset 9.35 dB
10 dB/div
Ref 20.00 dBm
Mkr4 2.485 32 GHz
-48.425 dBm
Start 2.44000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 10.53 ms (1001 pts)
1 N 1 f 2.454 52 GHz -2.458 dBm
2 N 1 f 2.483 50 GHz -51.328 dBm
3 N 1 f 2.500 00 GHz -52.622 dBm
4 N 1 f 2.485 32 GHz -48.425 dBm
Frequency
Auto Tune
Center Freq
2.495000000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.550000000 GHz
CF Step
11.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix B.6: Conducted Spurious Emission

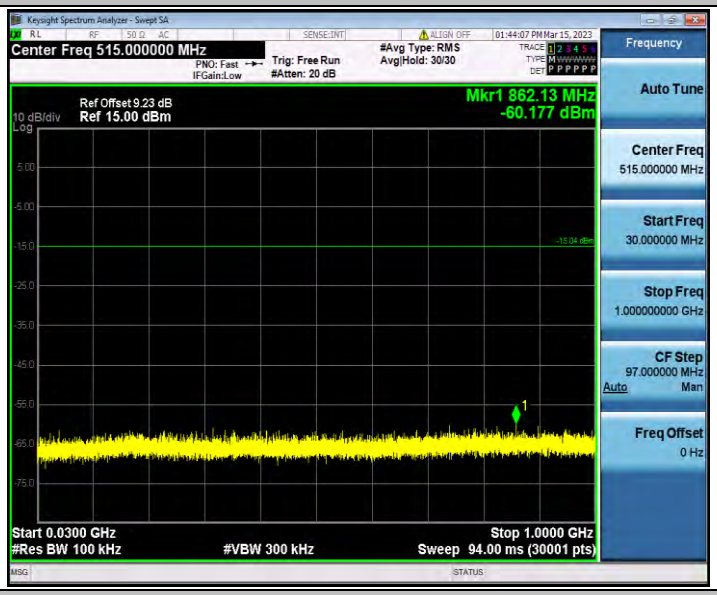
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.96	4.96	---	PASS
			30~1000	4.96	-60.18	≤-15.04	PASS
			1000~26500	4.96	-47.17	≤-15.04	PASS
		2437	Reference	5.49	5.49	---	PASS
			30~1000	5.49	-60.43	≤-14.51	PASS
			1000~26500	5.49	-47.08	≤-14.51	PASS
		2462	Reference	6.73	6.73	---	PASS
			30~1000	6.73	-58.99	≤-13.27	PASS
			1000~26500	6.73	-47.73	≤-13.27	PASS
11G	Ant1	2412	Reference	-3.08	-3.08	---	PASS
			30~1000	-3.08	-59.83	≤-23.08	PASS
			1000~26500	-3.08	-47.43	≤-23.08	PASS
		2437	Reference	-3.67	-3.67	---	PASS
			30~1000	-3.67	-52.21	≤-23.67	PASS
			1000~26500	-3.67	-47.46	≤-23.67	PASS
		2462	Reference	-1.76	-1.76	---	PASS
			30~1000	-1.76	-59.97	≤-21.76	PASS
			1000~26500	-1.76	-47.52	≤-21.76	PASS
11N20SISO	Ant1	2412	Reference	-1.23	-1.23	---	PASS
			30~1000	-1.23	-60.93	≤-21.23	PASS
			1000~26500	-1.23	-47.24	≤-21.23	PASS
		2437	Reference	-0.05	-0.05	---	PASS
			30~1000	-0.05	-59.69	≤-20.05	PASS
			1000~26500	-0.05	-47.63	≤-20.05	PASS
		2462	Reference	-0.52	-0.52	---	PASS
			30~1000	-0.52	-59.4	≤-20.52	PASS
			1000~26500	-0.52	-47.33	≤-20.52	PASS
11N40SISO	Ant1	2422	Reference	-3.31	-3.31	---	PASS
			30~1000	-3.31	-60.56	≤-23.31	PASS
			1000~26500	-3.31	-47.79	≤-23.31	PASS
		2437	Reference	-3.60	-3.60	---	PASS
			30~1000	-3.60	-60.12	≤-23.6	PASS
			1000~26500	-3.60	-47.7	≤-23.6	PASS
		2452	Reference	-2.48	-2.48	---	PASS
			30~1000	-2.48	-59.87	≤-22.48	PASS
			1000~26500	-2.48	-47.11	≤-22.48	PASS

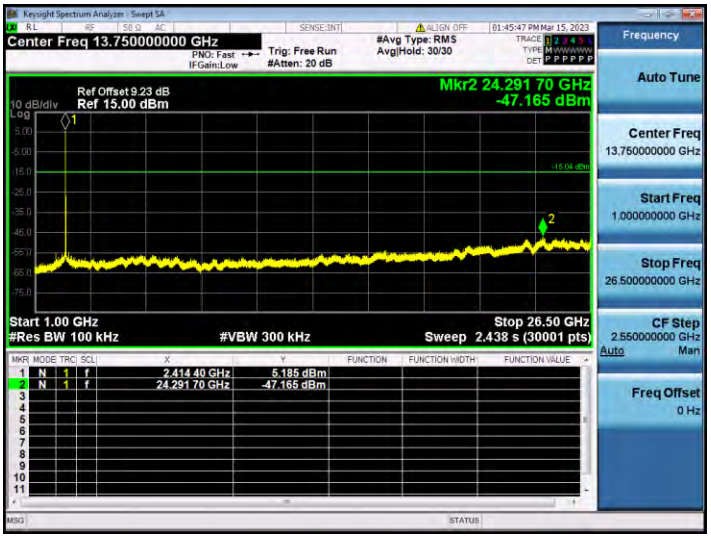
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

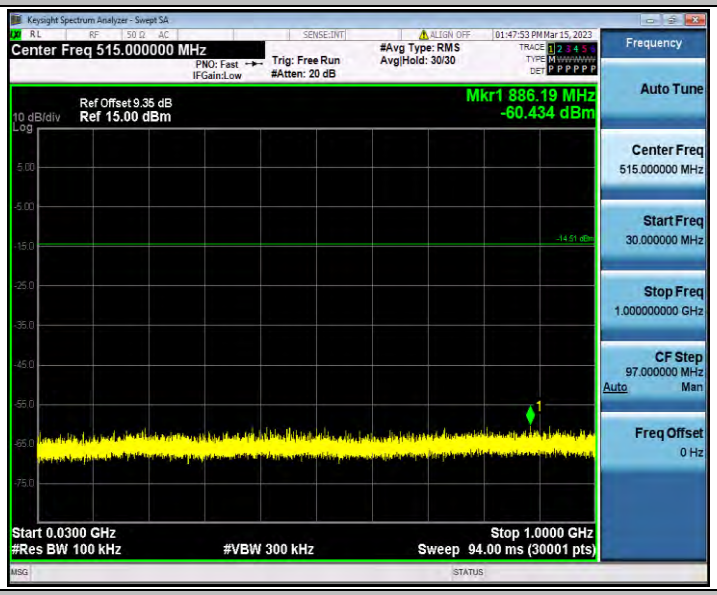


11B_Ant1_2412_1000~26500

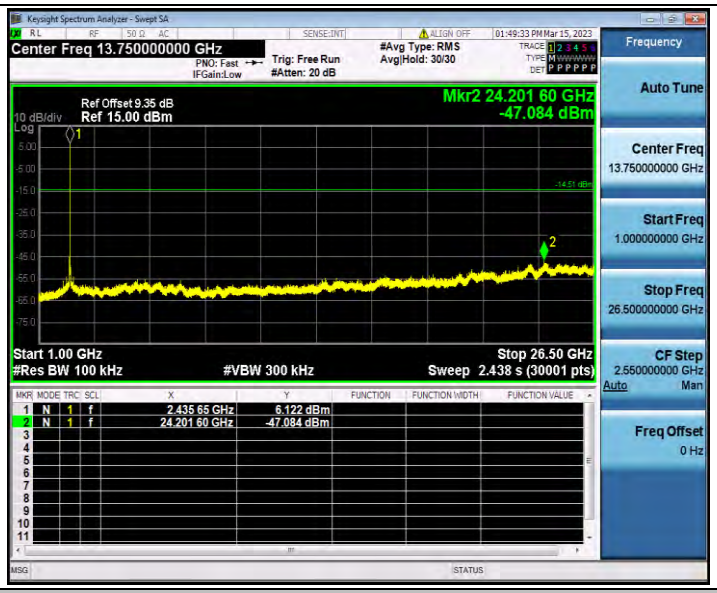


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

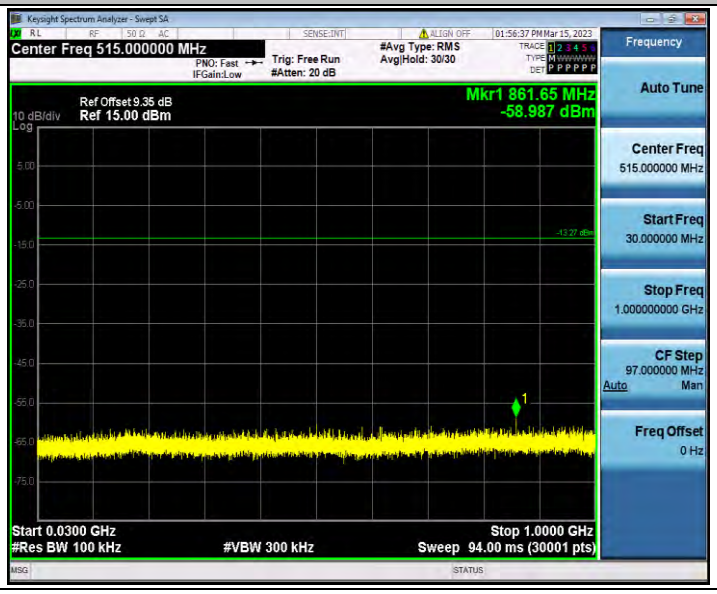


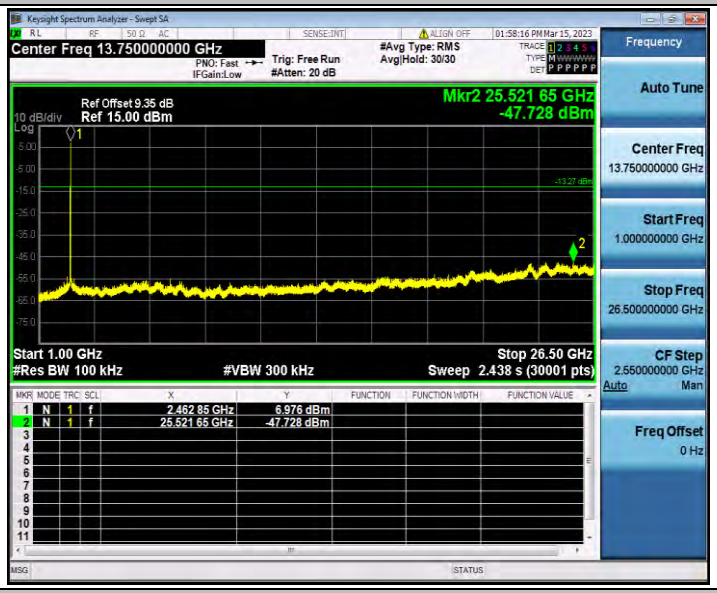
11B_Ant1_2437_1000~26500

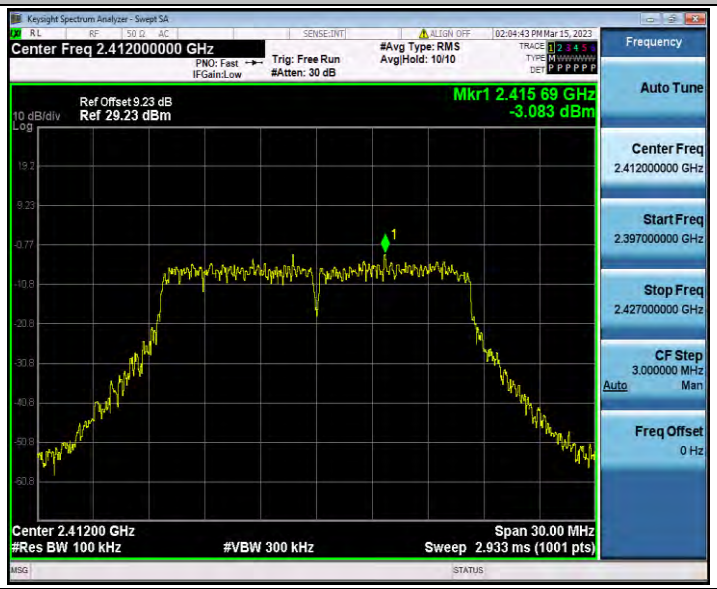


11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000

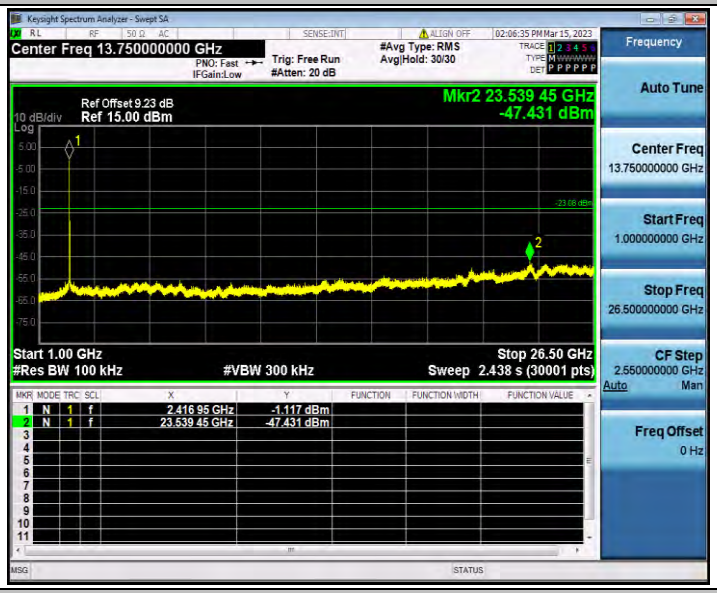


11B_Ant1_2462_1000~26500


11G_Ant1_2412_0~Reference


11G_Ant1_2412_30~1000

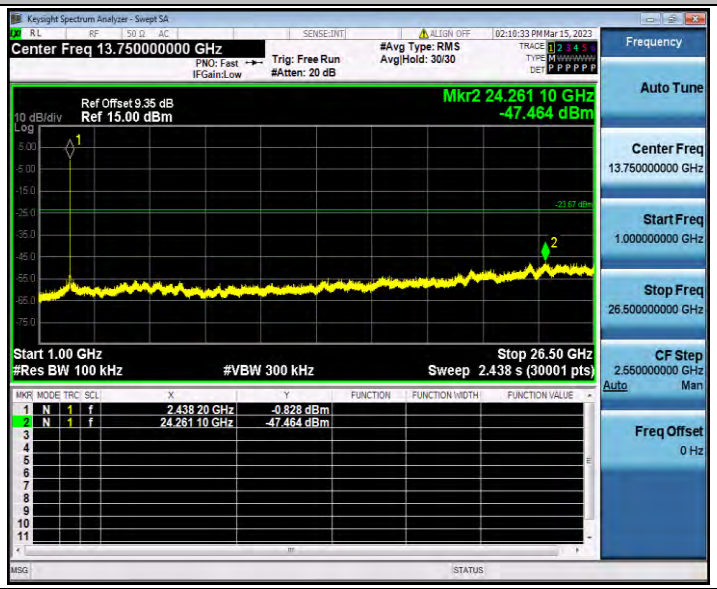
11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference

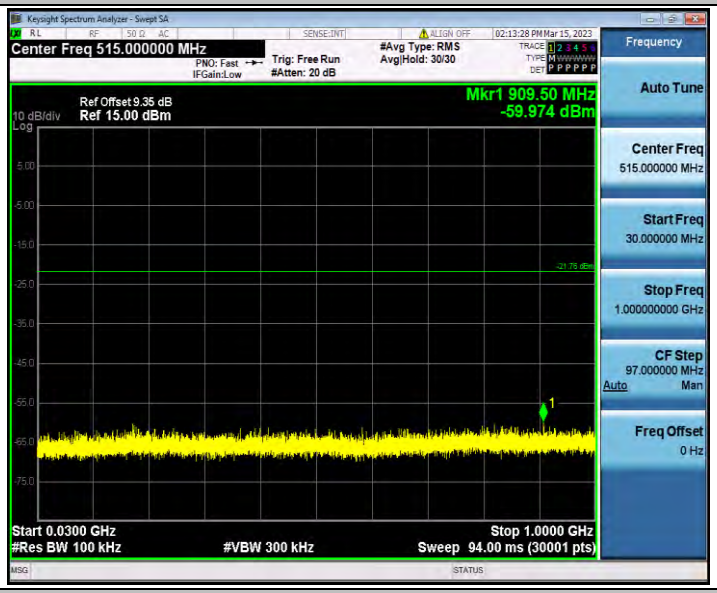
11G_Ant1_2437_30~1000

11G_Ant1_2437_1000~26500

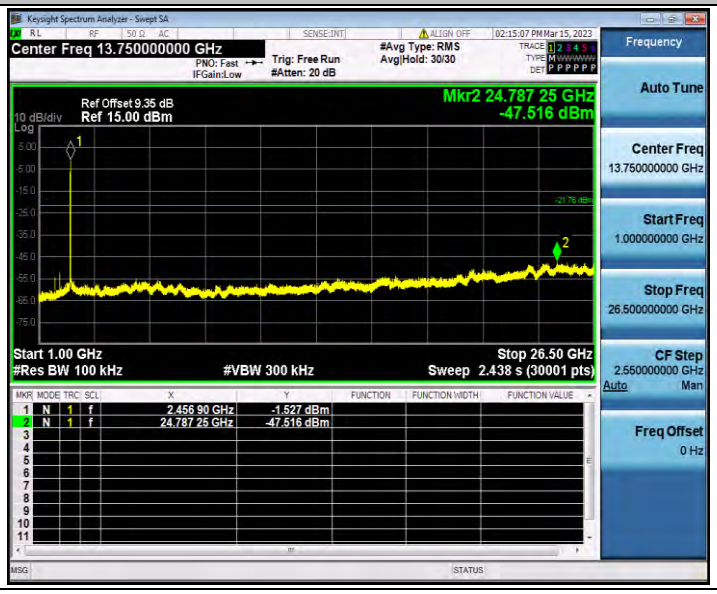


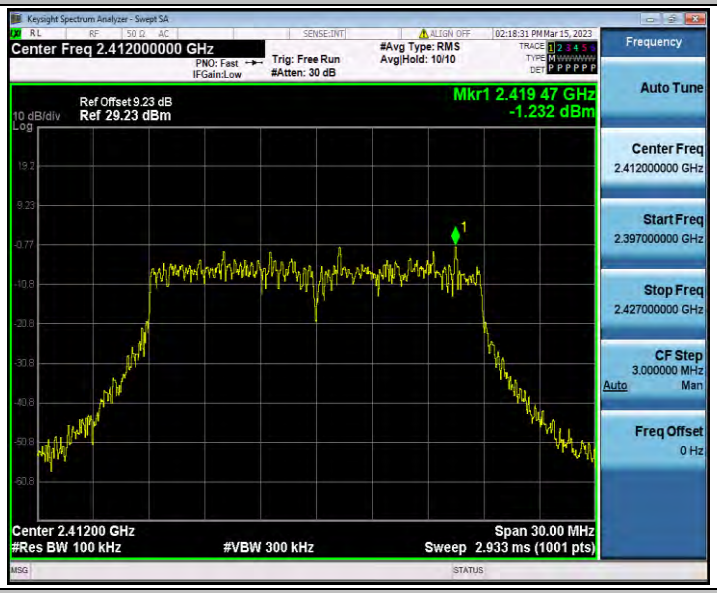
11G_Ant1_2462_0~Reference

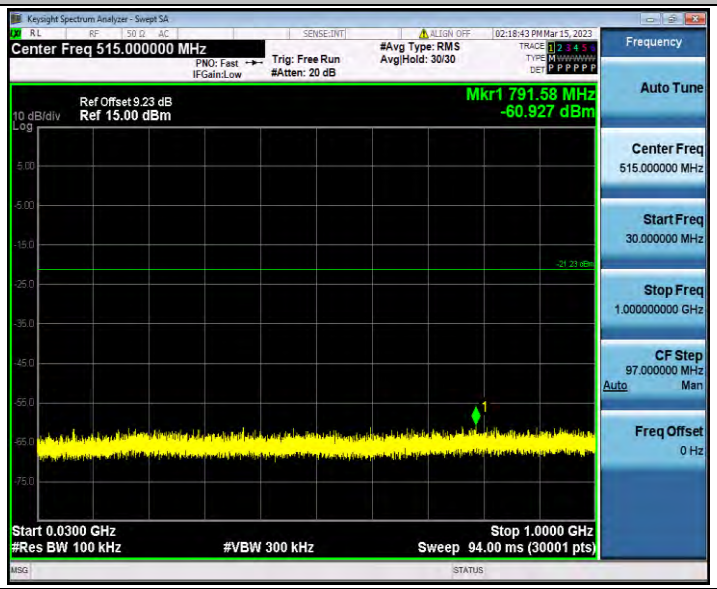
11G_Ant1_2462_30~1000



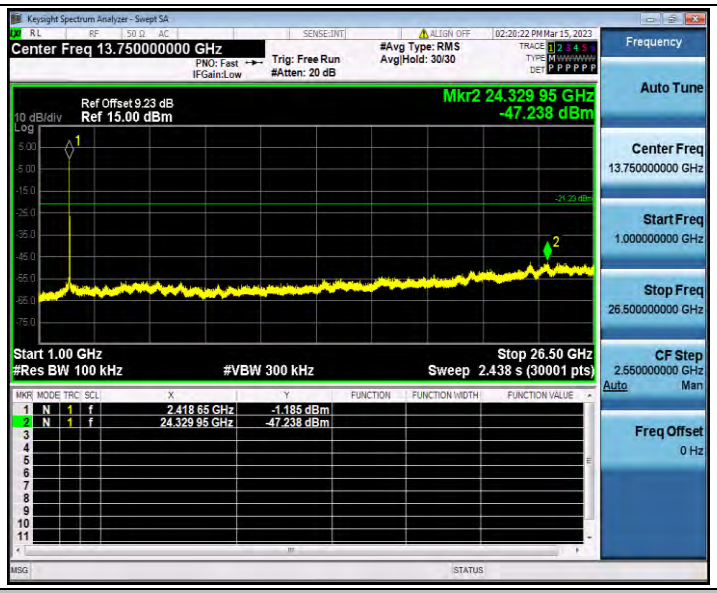
11G_Ant1_2462_1000~26500



11N20SISO_Ant1_2412_0~Reference


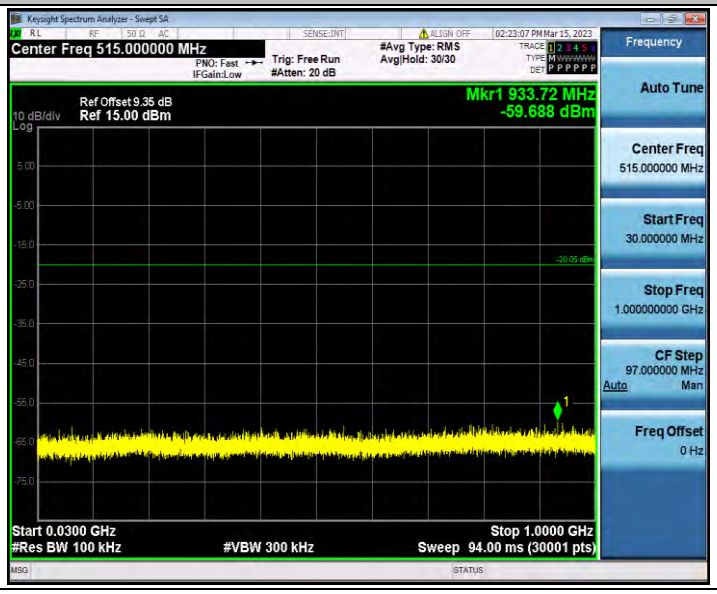
11N20SISO_Ant1_2412_30~1000


11N20SISO_Ant1_2412_1000~26500

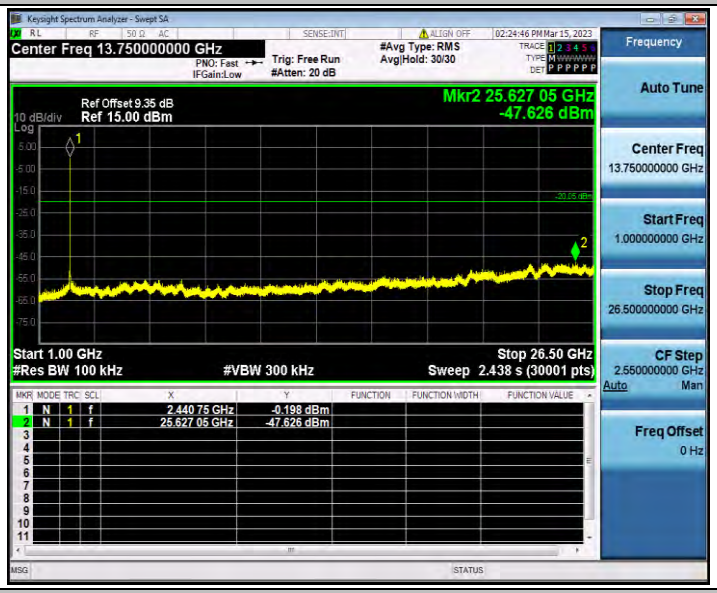


11N20SISO_Ant1_2437_0~Reference

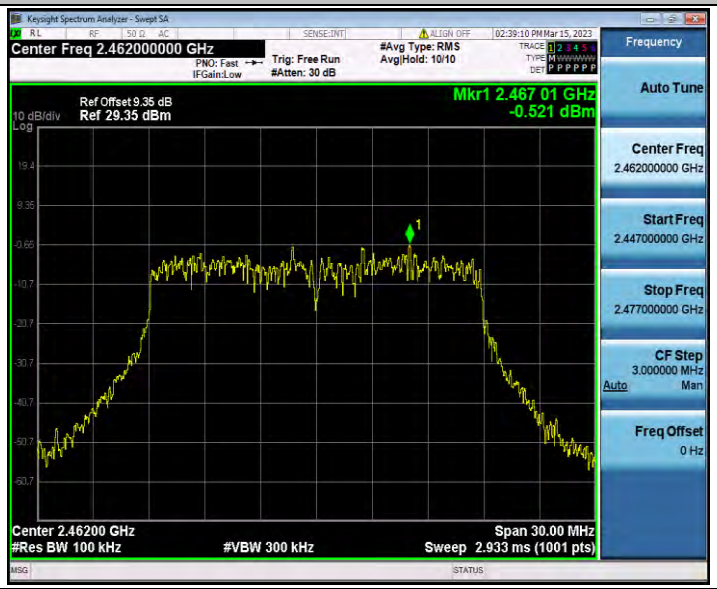
11N20SISO_Ant1_2437_30~1000



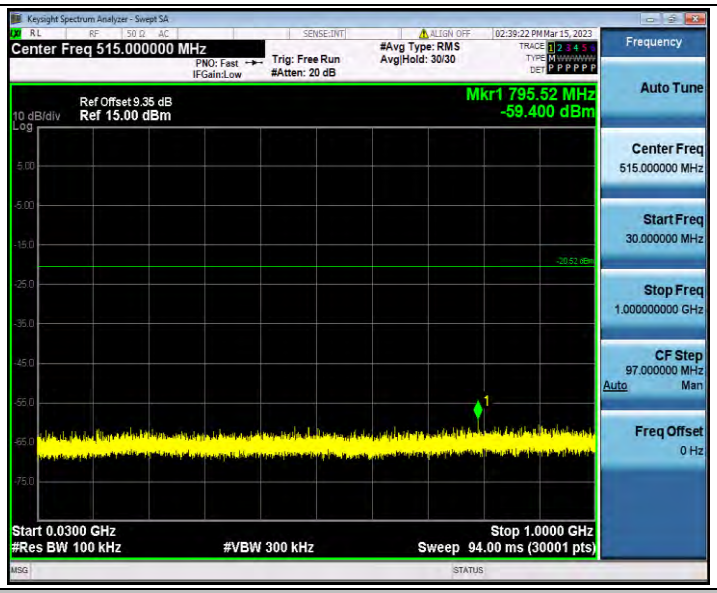
11N20SISO_Ant1_2437_1000~26500



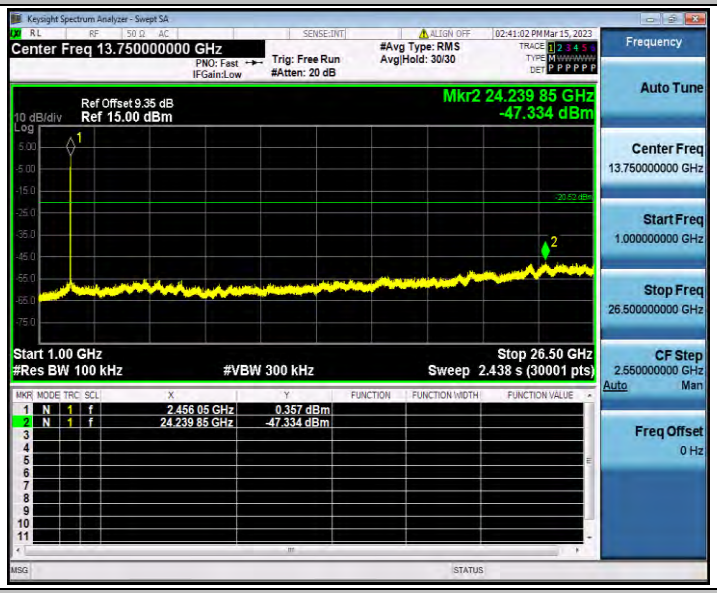
11N20SISO_Ant1_2462_0~Reference



11N20SISO_Ant1_2462_30~1000



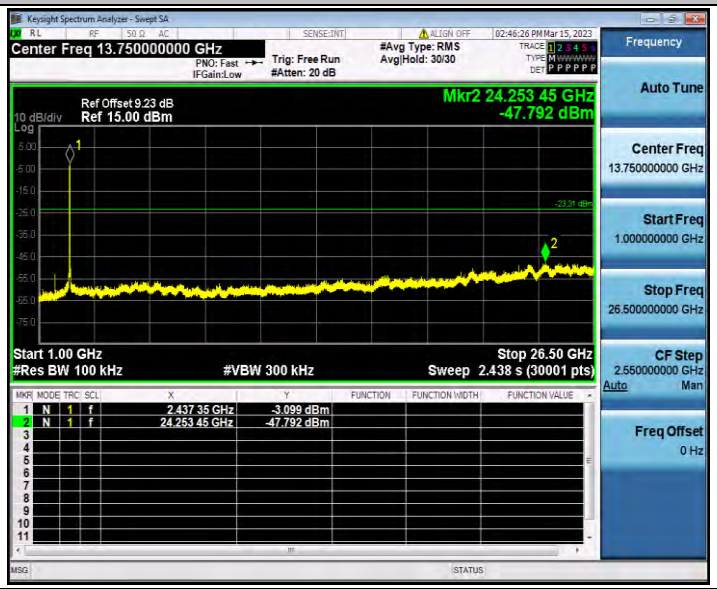
11N20SISO_Ant1_2462_1000~26500



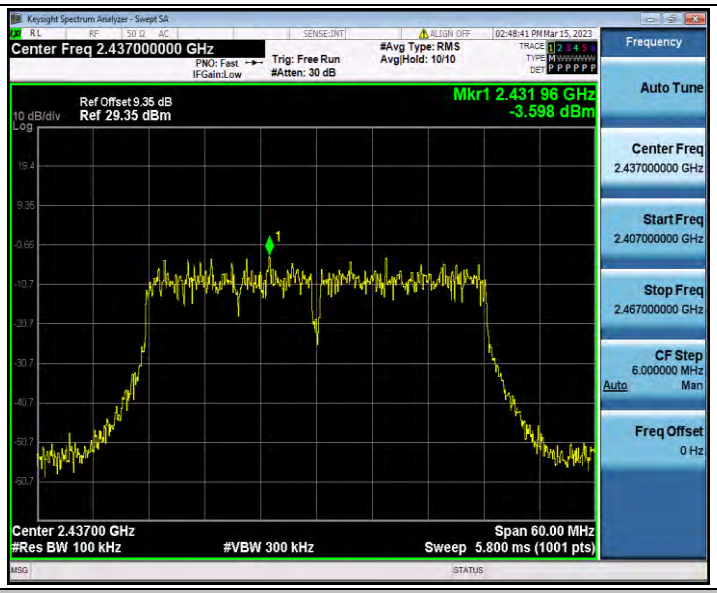
11N40SISO_Ant1_2422_0~Reference

11N40SISO_Ant1_2422_30~1000

11N40SISO_Ant1_2422_1000~26500

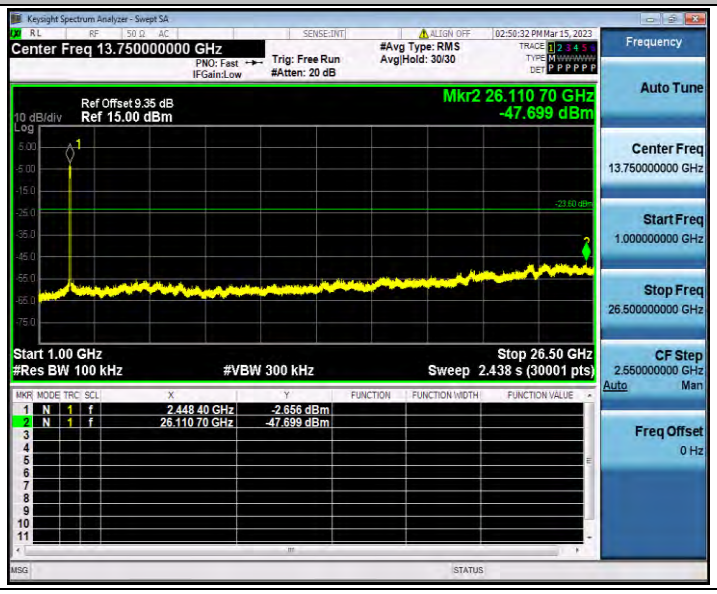


11N40SISO_Ant1_2437_0~Reference



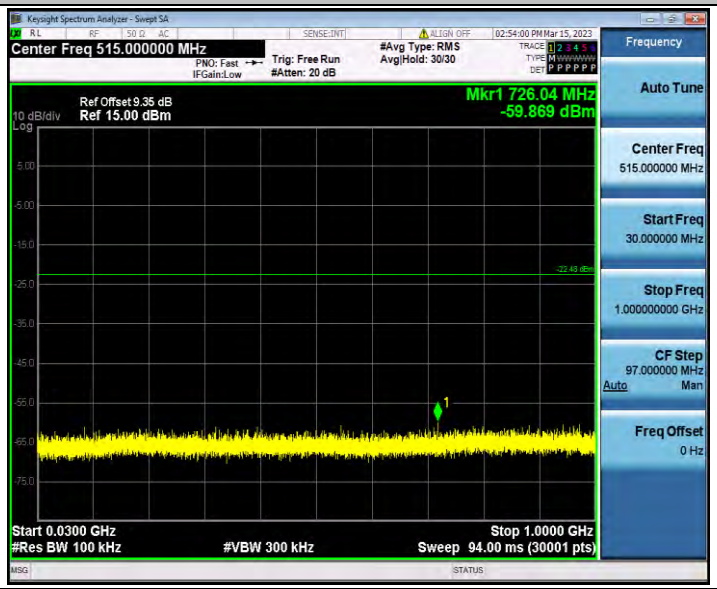
11N40SISO_Ant1_2437_30~1000

11N40SISO_Ant1_2437_1000~26500

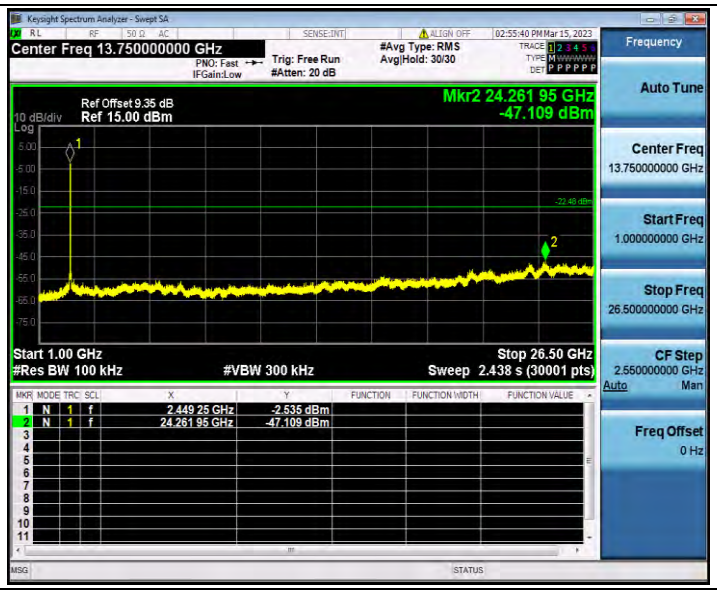


11N40SISO_Ant1_2452_0~Reference

11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500


Keysight Spectrum Analyzer - Swept SA
Center Freq 13.750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 30/30
02:55:40 PM Mar 15, 2023
Ref Offset 9.35 dB
10 dB/div
Ref 15.00 dBm
Log
Mkr2 24.261 95 GHz
-47.109 dBm
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
1 N 1 f 2.449 25 GHz -2.535 dBm
2 N 1 f 24.261 95 GHz -47.109 dBm
Frequency
Auto Tune
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz