Case No. : CTA24061300802	
Ambient Condition: 23 ℃, 49 %RH,	
Test Date: 2024.7.1	**Test Engineer:** Lushan Kong

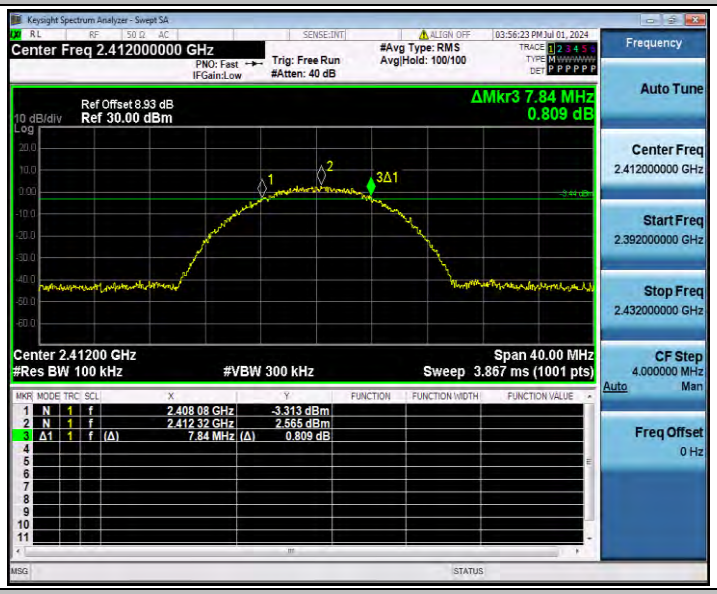
Appendix B.1: DTS Bandwidth

Test Result

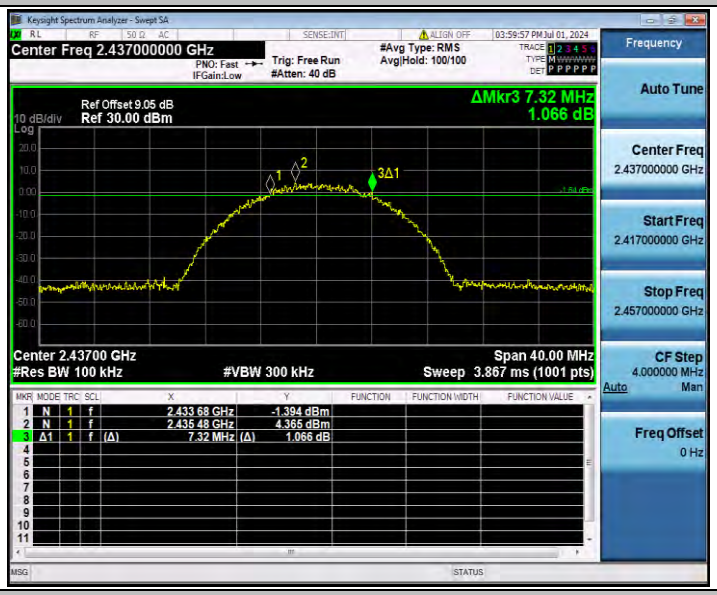
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	7.840	2408.080	2415.920	0.5	PASS
		2437	7.320	2433.680	2441.000	0.5	PASS
		2462	7.840	2458.320	2466.160	0.5	PASS
11G	Ant1	2412	16.440	2403.840	2420.280	0.5	PASS
		2437	16.360	2428.840	2445.200	0.5	PASS
		2462	16.320	2453.840	2470.160	0.5	PASS
11N20SISO	Ant1	2412	17.680	2403.200	2420.880	0.5	PASS
		2437	17.600	2428.200	2445.800	0.5	PASS
		2462	17.600	2453.200	2470.800	0.5	PASS
11N40SISO	Ant1	2422	35.760	2404.480	2440.240	0.5	PASS
		2437	35.680	2419.480	2455.160	0.5	PASS
		2452	36.320	2433.840	2470.160	0.5	PASS

Test Graphs

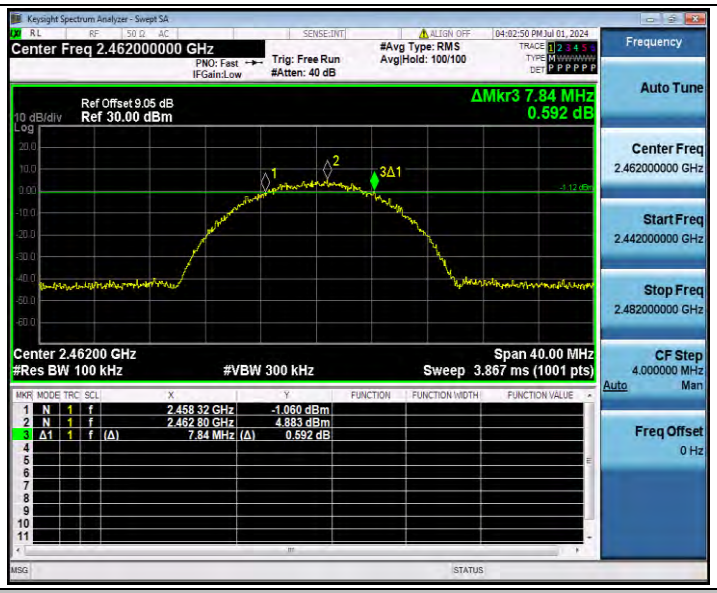
11B_Ant1_2412



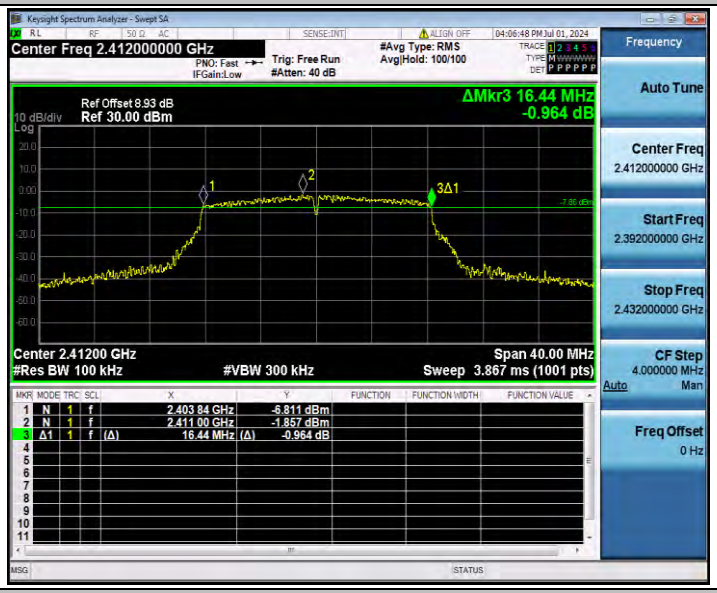
11B_Ant1_2437



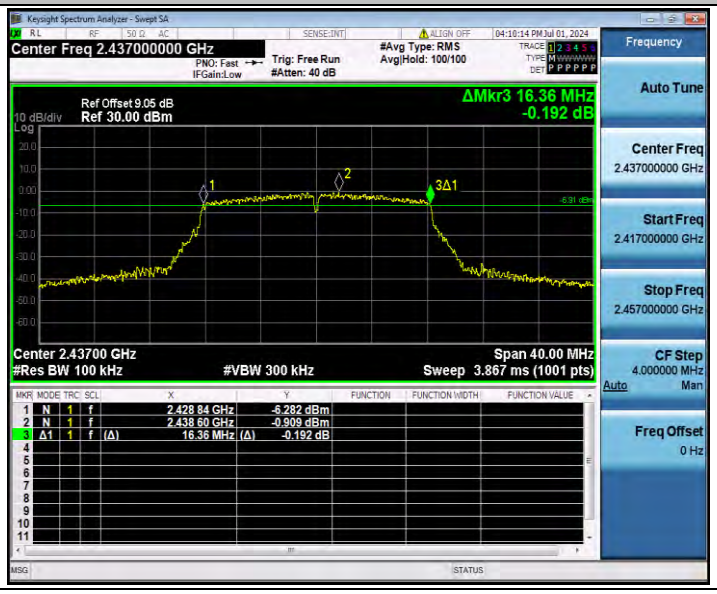
11B_Ant1_2462



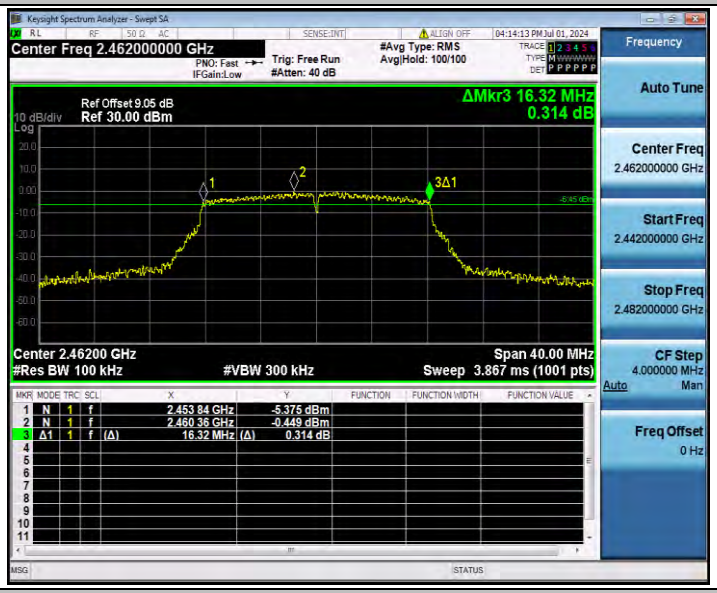
11G_Ant1_2412



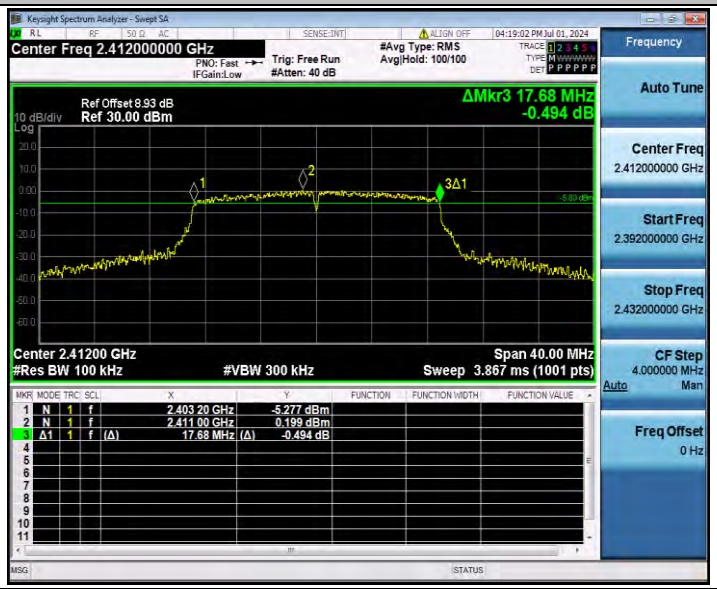
11G_Ant1_2437



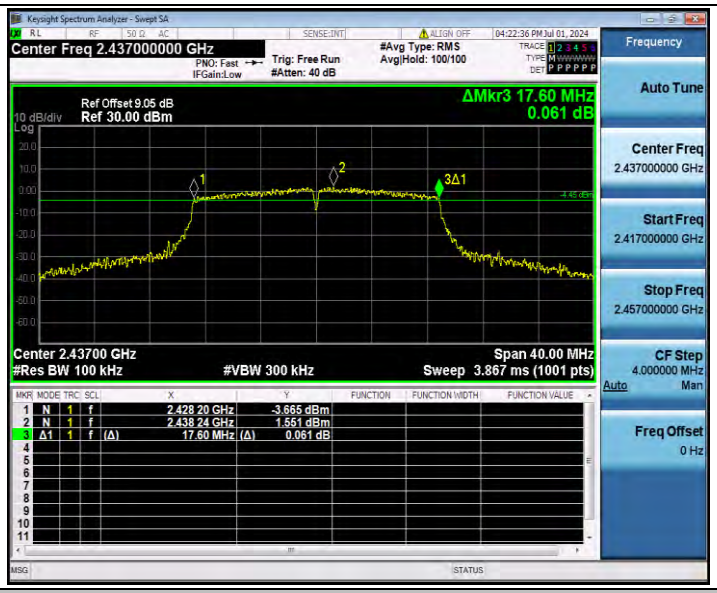
11G_Ant1_2462



11N20SISO_Ant1_2412

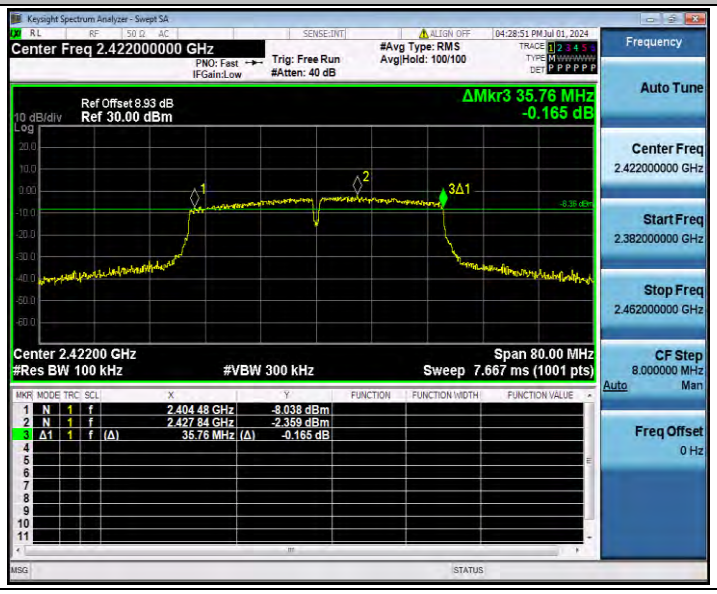


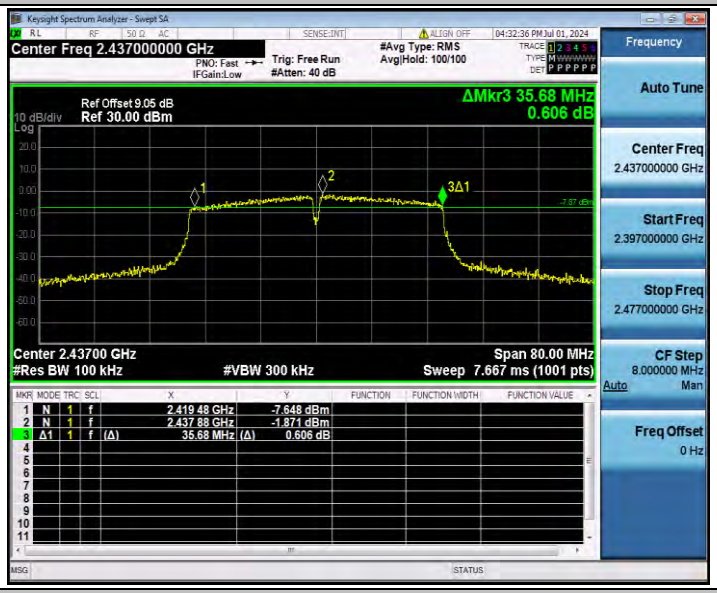
11N20SISO_Ant1_2437

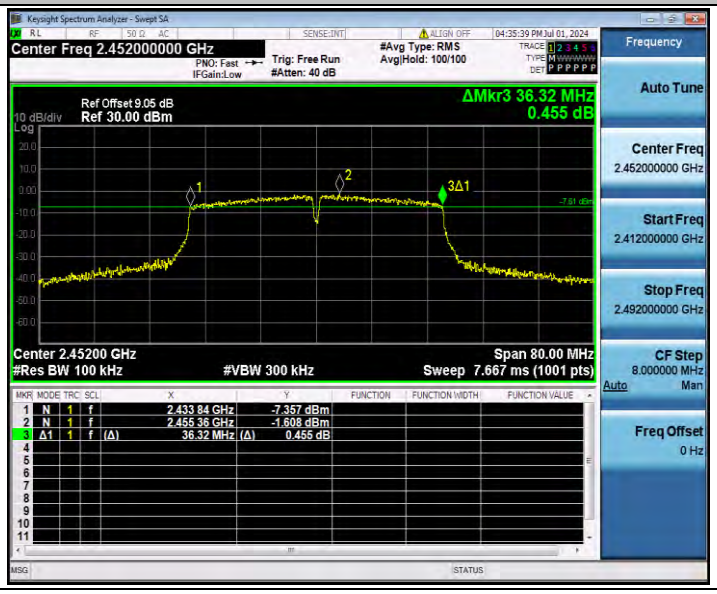


11N20SISO_Ant1_2462

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	12.569	2405.7842	2418.3532	---	---
		2437	12.510	2430.8202	2443.3302	---	---
		2462	12.459	2455.7905	2468.2495	---	---
11G	Ant1	2412	16.802	2403.6805	2420.4825	---	---
		2437	16.806	2428.6365	2445.4425	---	---
		2462	16.833	2453.5940	2470.4270	---	---
11N20SISO	Ant1	2412	17.938	2403.1008	2421.0388	---	---
		2437	17.833	2428.1118	2445.9448	---	---
		2462	17.807	2453.0913	2470.8983	---	---
11N40SISO	Ant1	2422	36.200	2404.0884	2440.2884	---	---
		2437	36.213	2419.0533	2455.2663	---	---
		2452	36.161	2433.9734	2470.1344	---	---

Test Graphs

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

11G_Ant1_2437

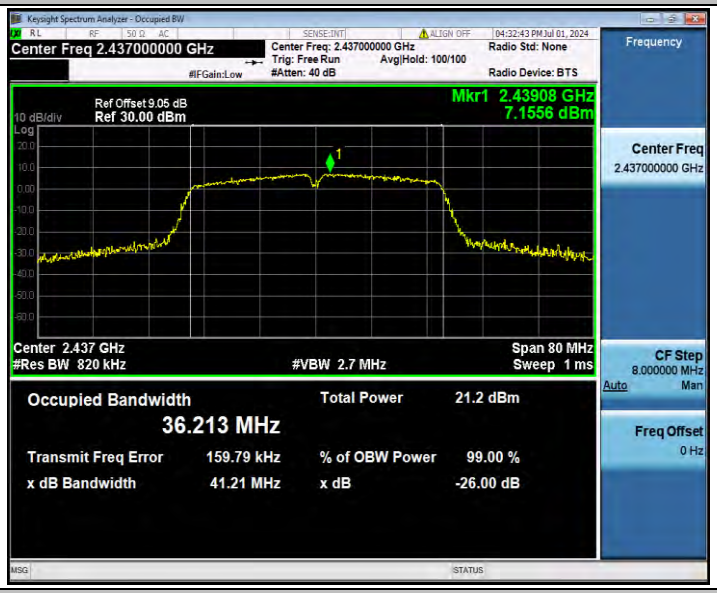
11G_Ant1_2462

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 Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	16.26	≤30.00	PASS
		2437	17.43	≤30.00	PASS
		2462	18.01	≤30.00	PASS
11G	Ant1	2412	18.72	≤30.00	PASS
		2437	19.64	≤30.00	PASS
		2462	19.99	≤30.00	PASS
11N20SISO	Ant1	2412	21.12	≤30.00	PASS
		2437	22.34	≤30.00	PASS
		2462	22.42	≤30.00	PASS
11N40SISO	Ant1	2422	21.07	≤30.00	PASS
		2437	21.56	≤30.00	PASS
		2452	21.82	≤30.00	PASS

Appendix B.4: Maximum power spectral density

Test Result

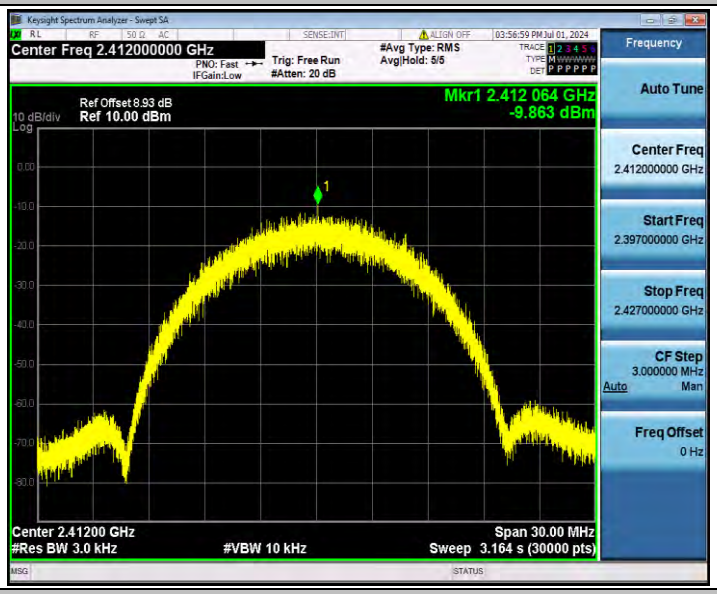
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.86	≤8.00	PASS
		2437	-9.35	≤8.00	PASS
		2462	-9.05	≤8.00	PASS
11G	Ant1	2412	-13.19	≤8.00	PASS
		2437	-12.22	≤8.00	PASS
		2462	-12.12	≤8.00	PASS
11N20SISO	Ant1	2412	-10.79	≤8.00	PASS
		2437	-9.26	≤8.00	PASS
		2462	-10.08	≤8.00	PASS
11N40SISO	Ant1	2422	-14.02	≤8.00	PASS
		2437	-11.98	≤8.00	PASS
		2452	-12.56	≤8.00	PASS

Note：

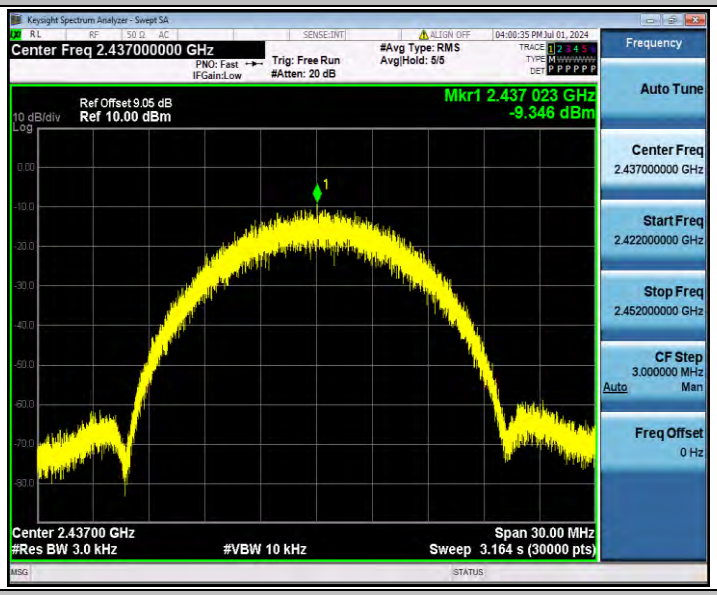
1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

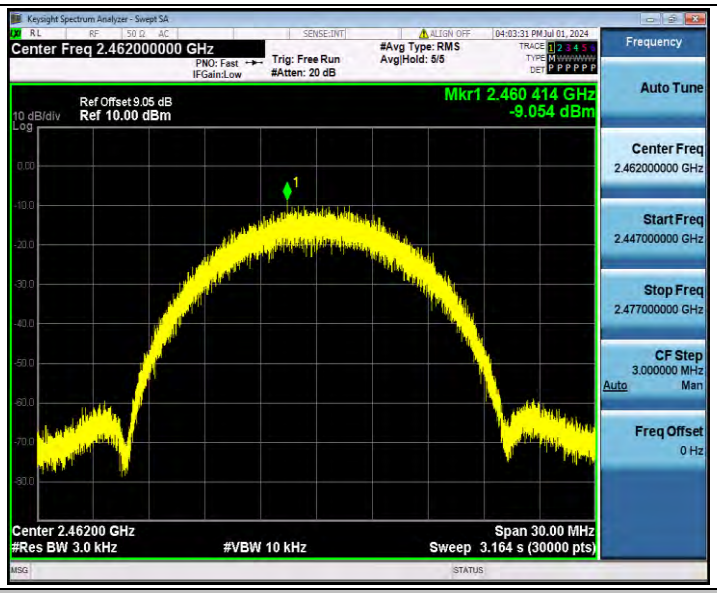
11B_Ant1_2412



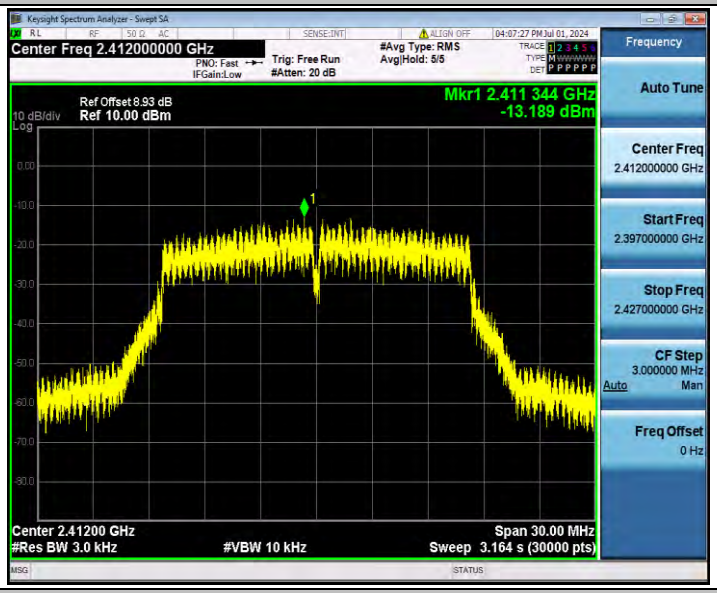
11B_Ant1_2437



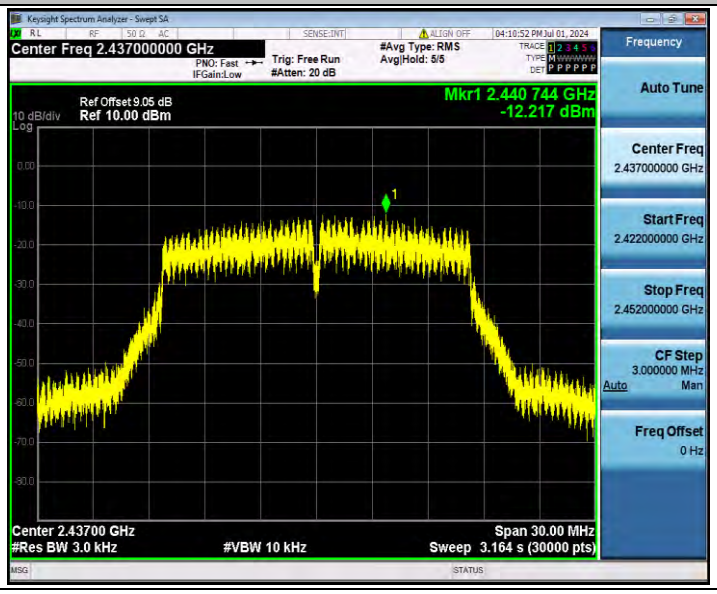
11B_Ant1_2462



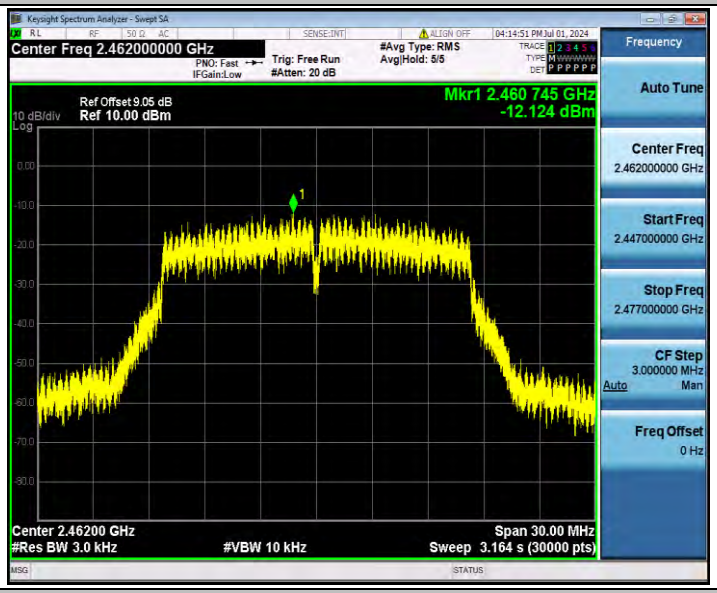
11G_Ant1_2412



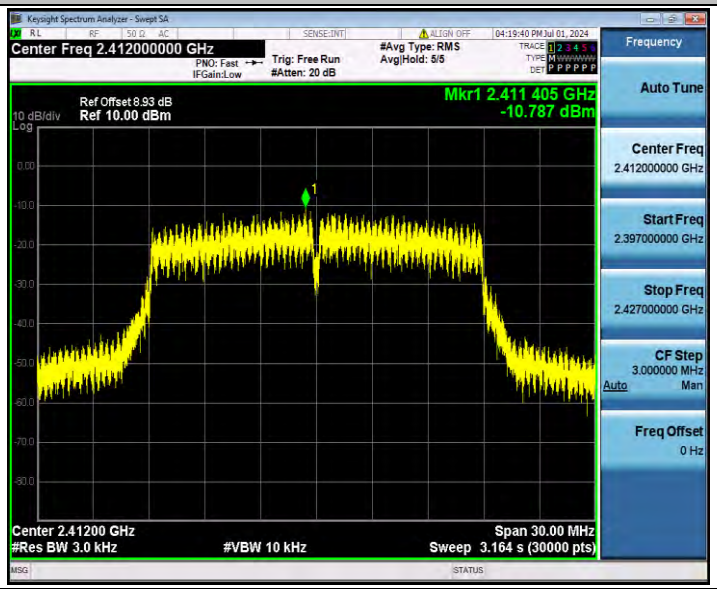
11G_Ant1_2437



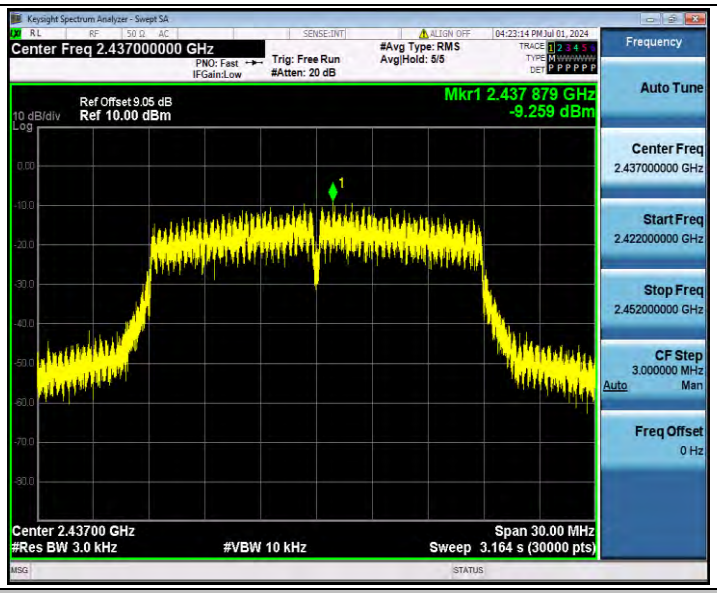
11G_Ant1_2462



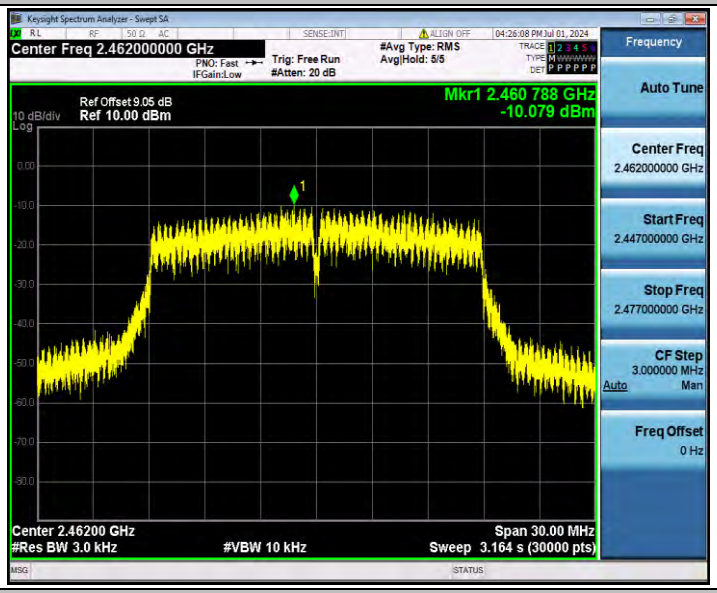
11N20SISO_Ant1_2412



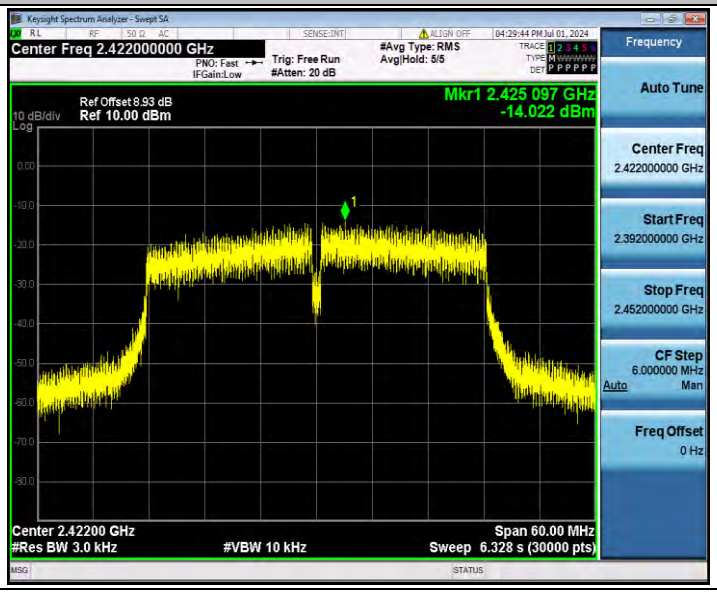
11N20SISO_Ant1_2437

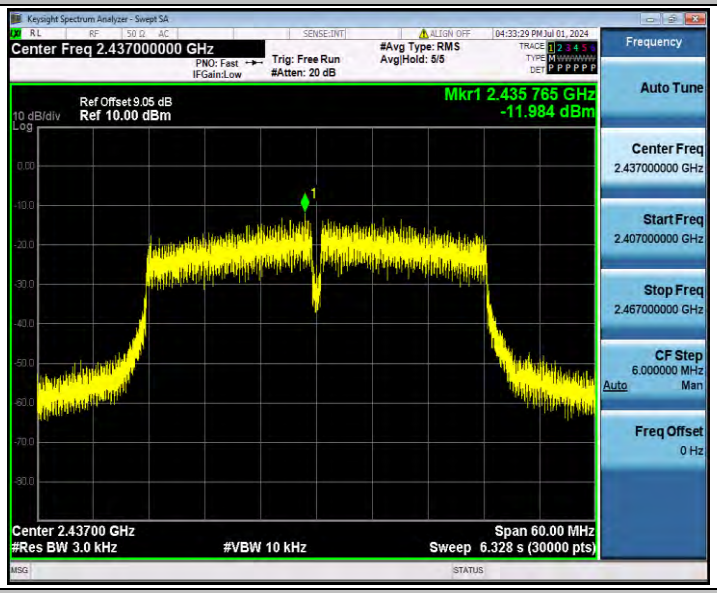


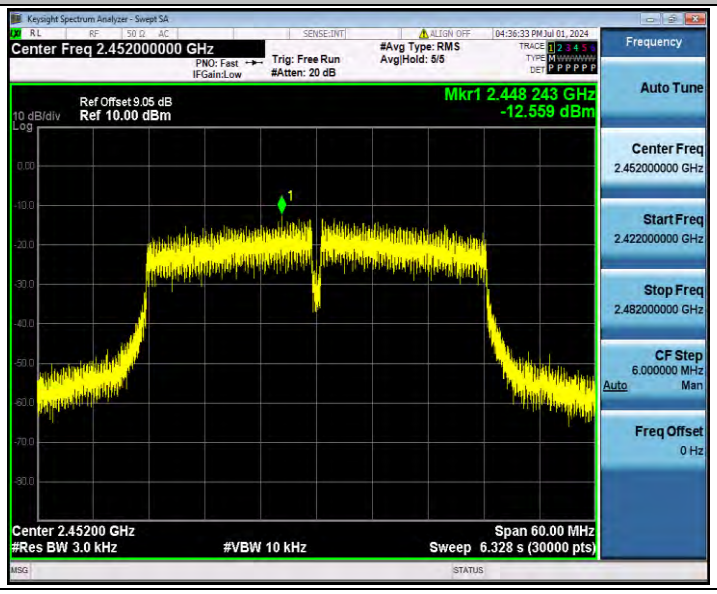
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


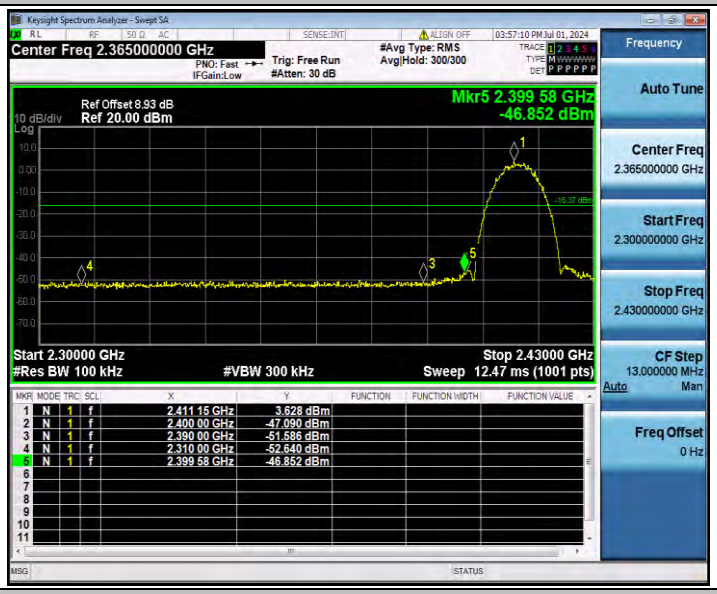
Appendix B.5: Band edge measurements

Test Result

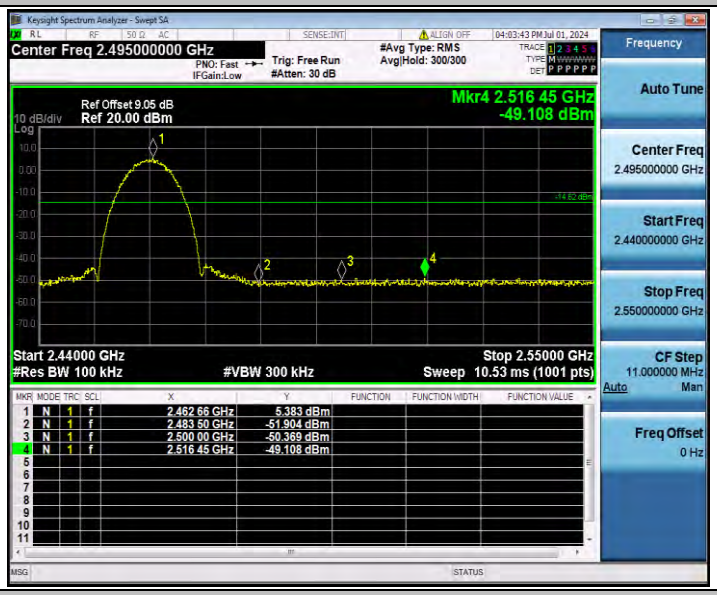
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	3.63	-46.85	≤-16.37	PASS
		High	2462	5.38	-49.11	≤-14.62	PASS
11G	Ant1	Low	2412	-1.92	-34.34	≤-21.92	PASS
		High	2462	-0.58	-48.18	≤-20.58	PASS
11N20SISO	Ant1	Low	2412	0.29	-27.99	≤-19.71	PASS
		High	2462	2.13	-41.43	≤-17.87	PASS
11N40SISO	Ant1	Low	2422	-2.27	-32.86	≤-22.27	PASS
		High	2452	-1.77	-36.38	≤-21.77	PASS

Test Graphs

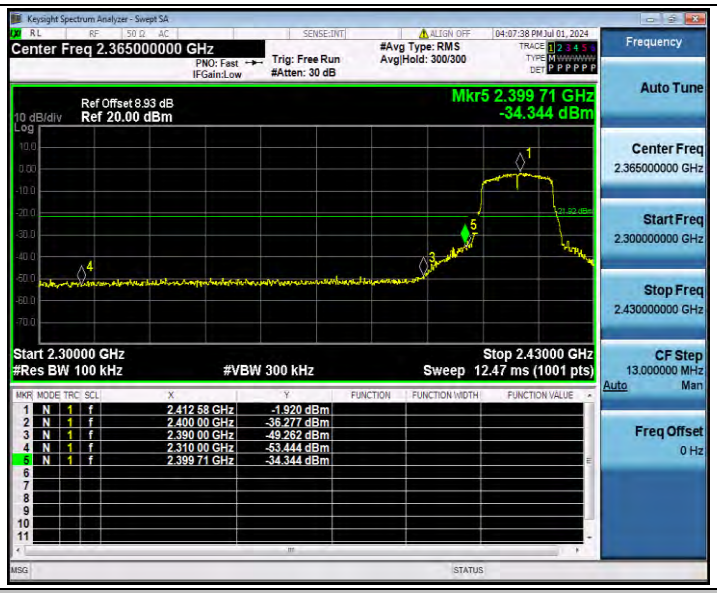
11B_Ant1_Low_2412



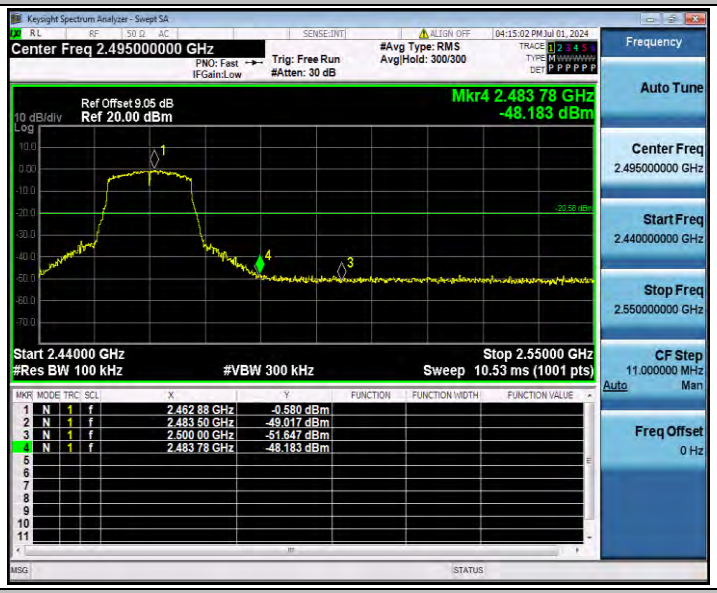
11B_Ant1_High_2462



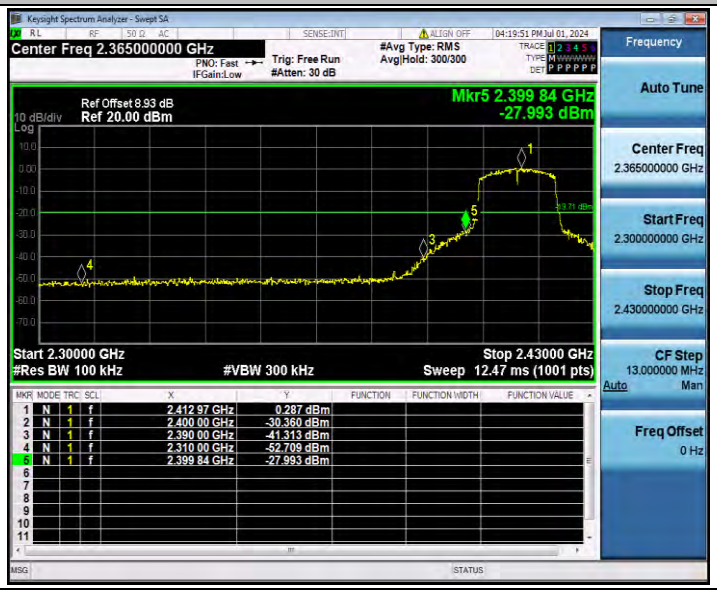
11G_Ant1_Low_2412



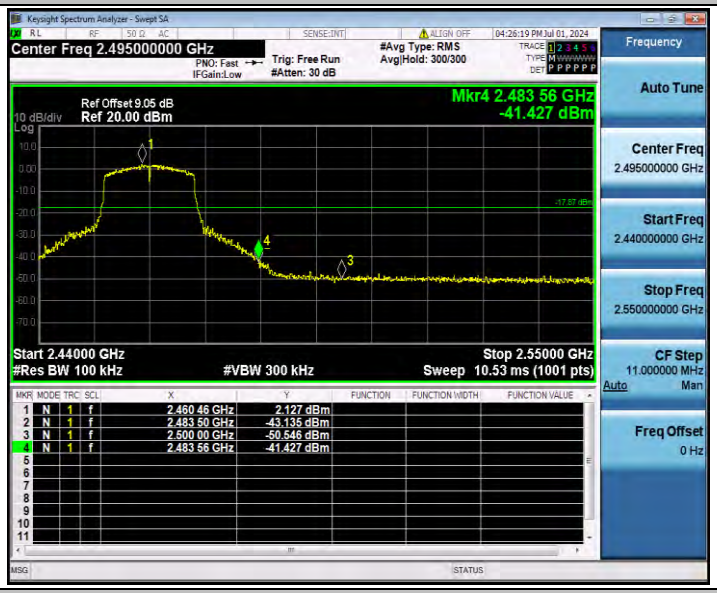
11G_Ant1_High_2462



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
Ref Offset 9.05 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.485 43 GHz
-36.378 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 08 GHz -1.773 dBm
2 N 1 f 2.483 50 GHz -39.631 dBm
3 N 1 f 2.500 00 GHz -48.787 dBm
4 N 1 f 2.485 43 GHz -36.378 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

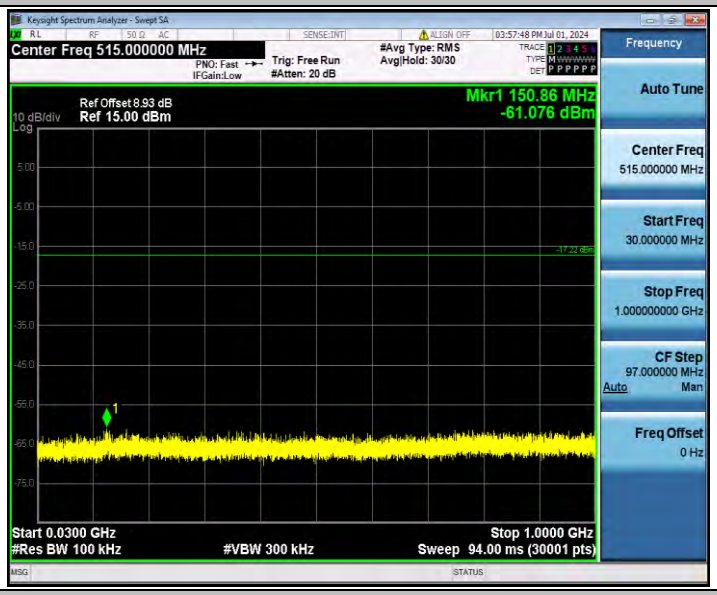
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	2.78	2.78	---	PASS
			30~1000	2.78	-61.08	≤-17.22	PASS
			1000~26500	2.78	-47.85	≤-17.22	PASS
		2437	Reference	2.94	2.94	---	PASS
			30~1000	2.94	-60.2	≤-17.06	PASS
			1000~26500	2.94	-46.99	≤-17.06	PASS
		2462	Reference	4.53	4.53	---	PASS
			30~1000	4.53	-60.42	≤-15.47	PASS
			1000~26500	4.53	-47.1	≤-15.47	PASS
11G	Ant1	2412	Reference	-2.51	-2.51	---	PASS
			30~1000	-2.51	-60.46	≤-22.51	PASS
			1000~26500	-2.51	-47.24	≤-22.51	PASS
		2437	Reference	-1.63	-1.63	---	PASS
			30~1000	-1.63	-60.62	≤-21.63	PASS
			1000~26500	-1.63	-47.25	≤-21.63	PASS
		2462	Reference	-1.21	-1.21	---	PASS
			30~1000	-1.21	-60.08	≤-21.21	PASS
			1000~26500	-1.21	-47.81	≤-21.21	PASS
11N20SISO	Ant1	2412	Reference	-0.34	-0.34	---	PASS
			30~1000	-0.34	-60.14	≤-20.34	PASS
			1000~26500	-0.34	-47.6	≤-20.34	PASS
		2437	Reference	1.00	1.00	---	PASS
			30~1000	1.00	-60.19	≤-19	PASS
			1000~26500	1.00	-47.29	≤-19	PASS
		2462	Reference	1.09	1.09	---	PASS
			30~1000	1.09	-60.38	≤-18.91	PASS
			1000~26500	1.09	-47.6	≤-18.91	PASS
11N40SISO	Ant1	2422	Reference	-2.87	-2.87	---	PASS
			30~1000	-2.87	-60.29	≤-22.87	PASS
			1000~26500	-2.87	-47.25	≤-22.87	PASS
		2437	Reference	-2.65	-2.65	---	PASS
			30~1000	-2.65	-60.24	≤-22.65	PASS
			1000~26500	-2.65	-47.32	≤-22.65	PASS
		2452	Reference	-2.33	-2.33	---	PASS
			30~1000	-2.33	-60.25	≤-22.33	PASS
			1000~26500	-2.33	-47.27	≤-22.33	PASS

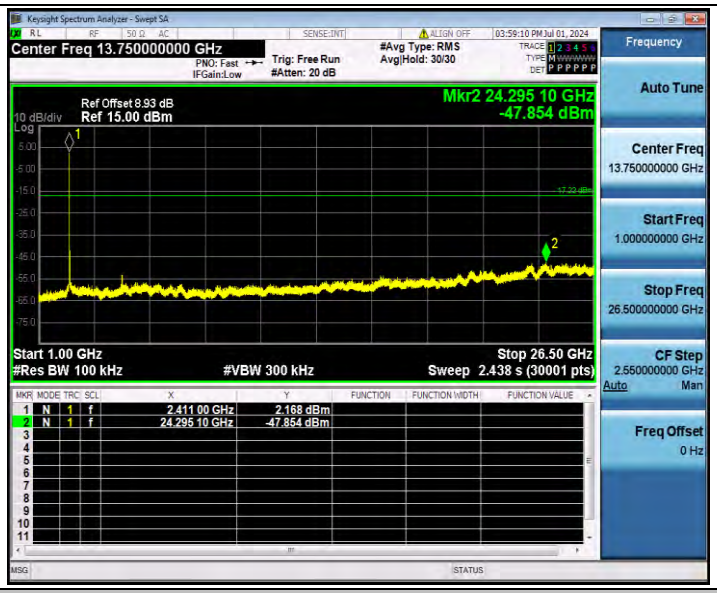
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

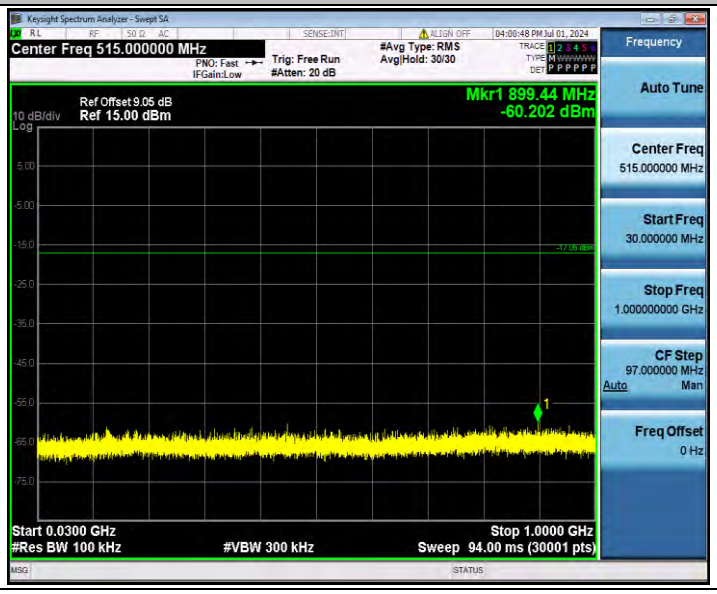


11B_Ant1_2412_1000~26500

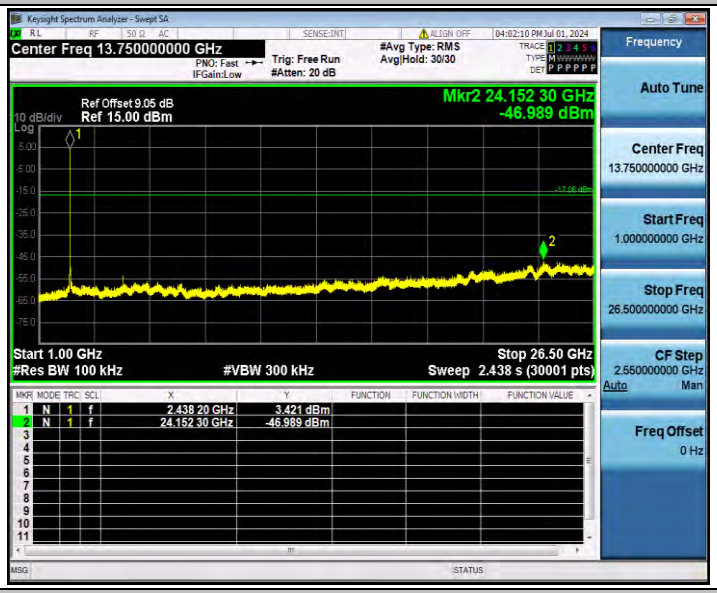


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

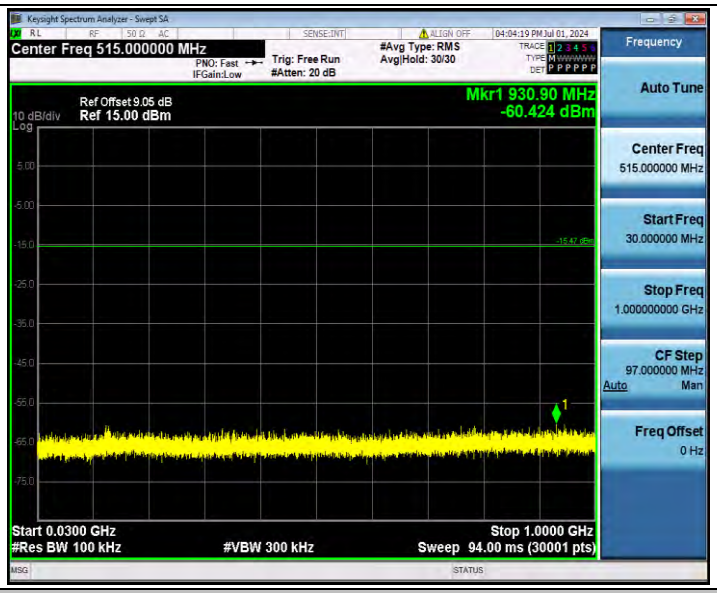


11B_Ant1_2437_1000~26500

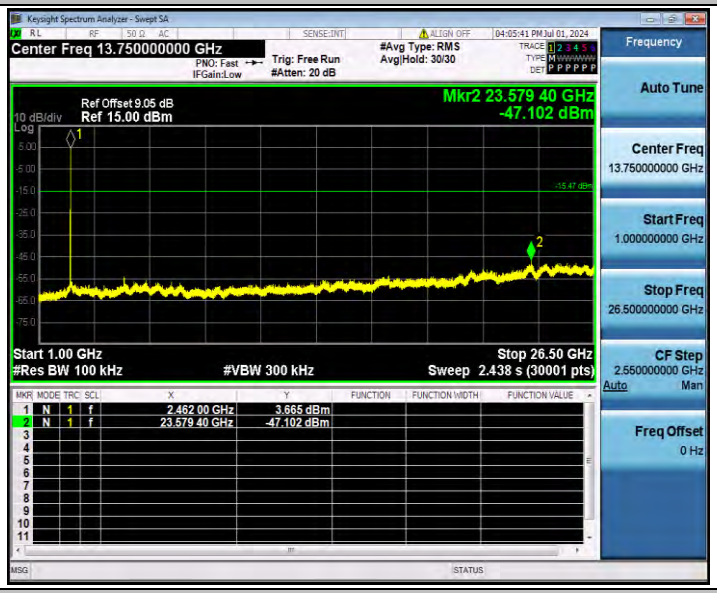


11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000



11B_Ant1_2462_1000~26500



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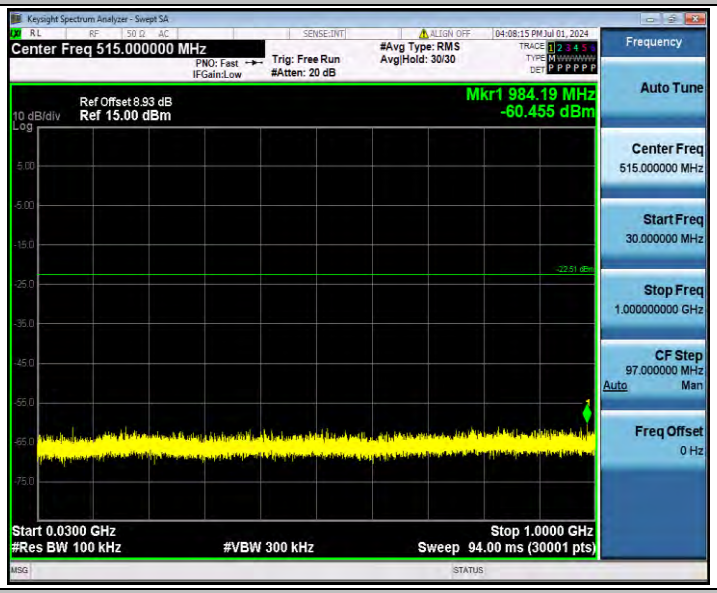
11G_Ant1_2412_30~1000



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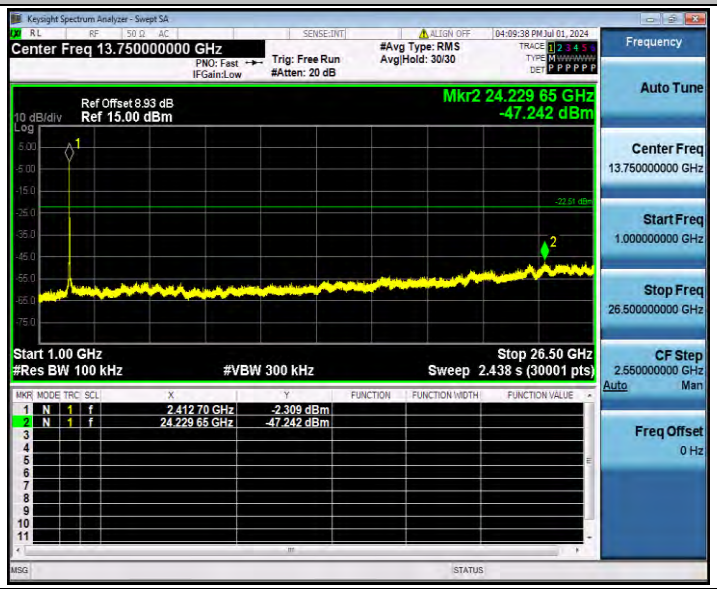

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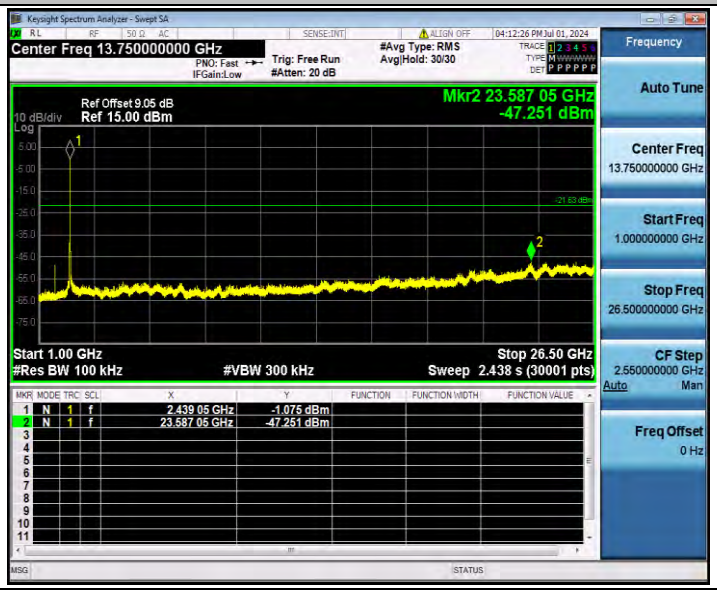
11G_Ant1_2437_30~1000

11G_Ant1_2437_1000~26500



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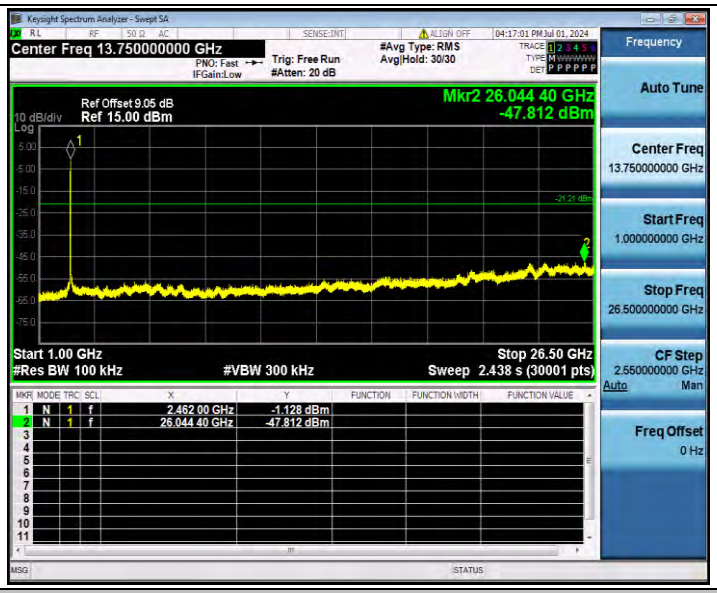
11G_Ant1_2462_30~1000

11G_Ant1_2462_1000~26500



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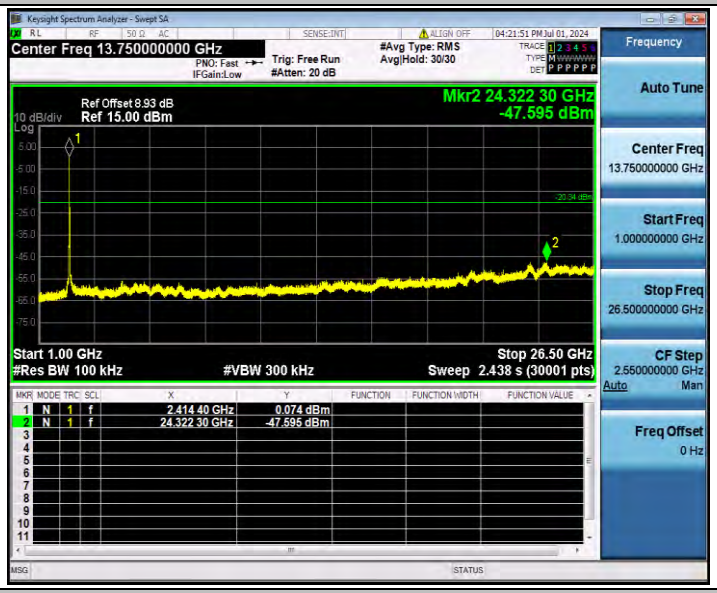
11N20SISO_Ant1_2412_1000~26500



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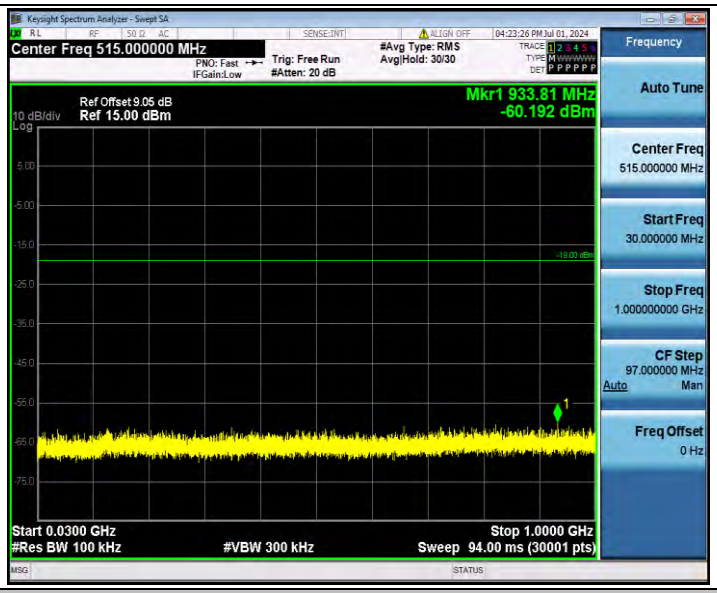

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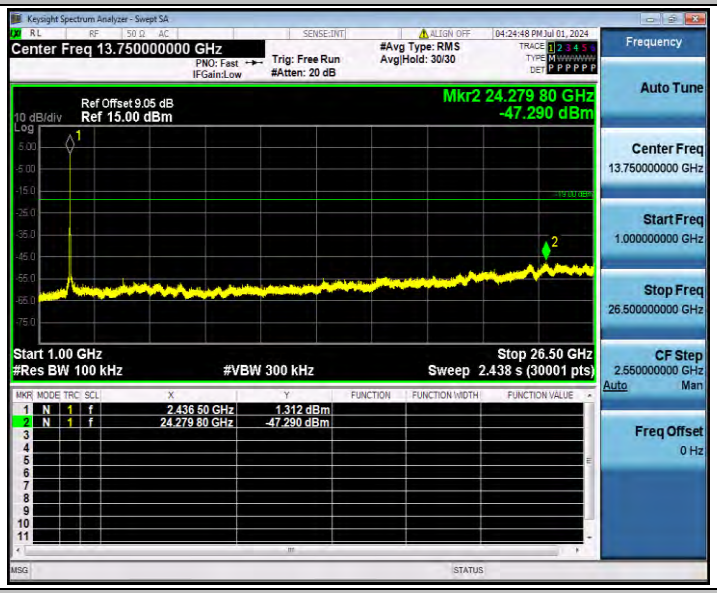

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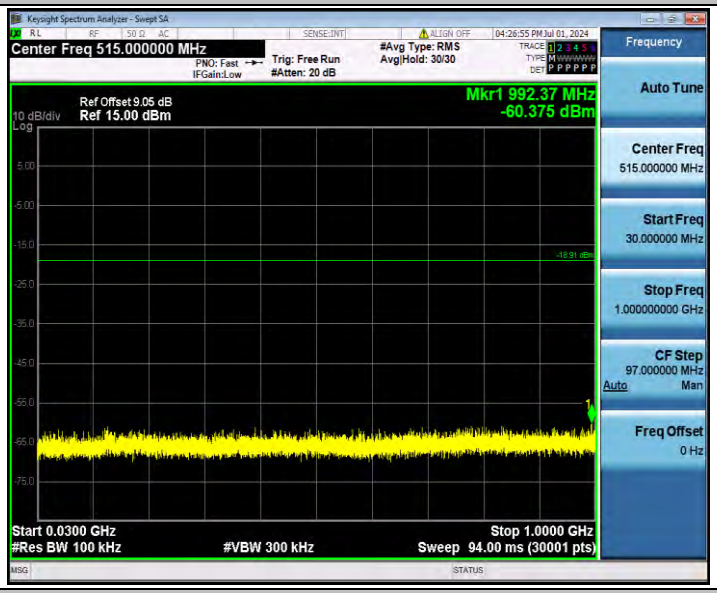
11N20SISO_Ant1_2462_30~1000



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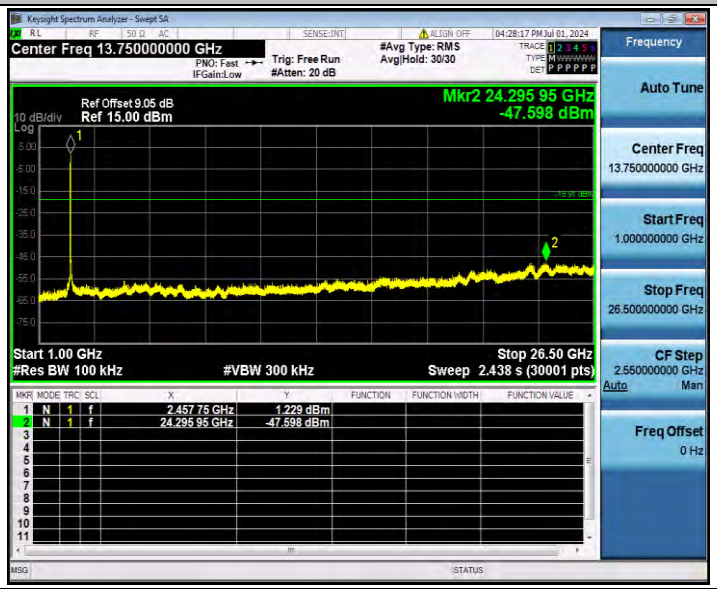
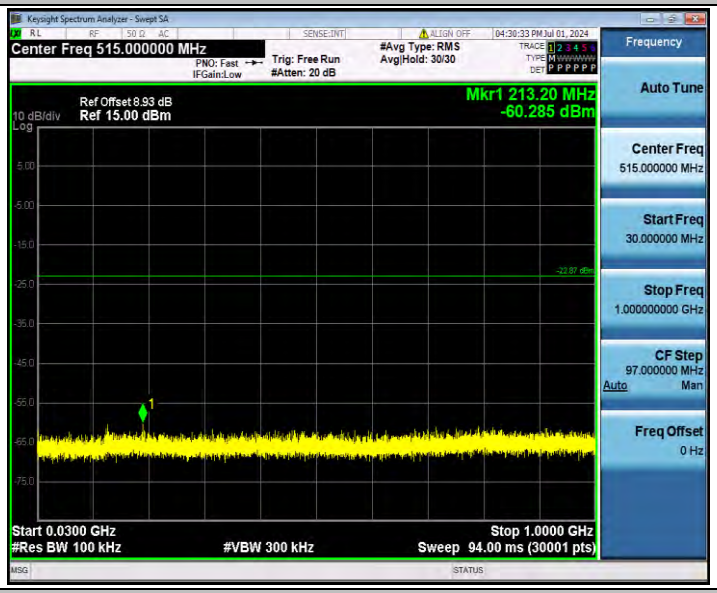
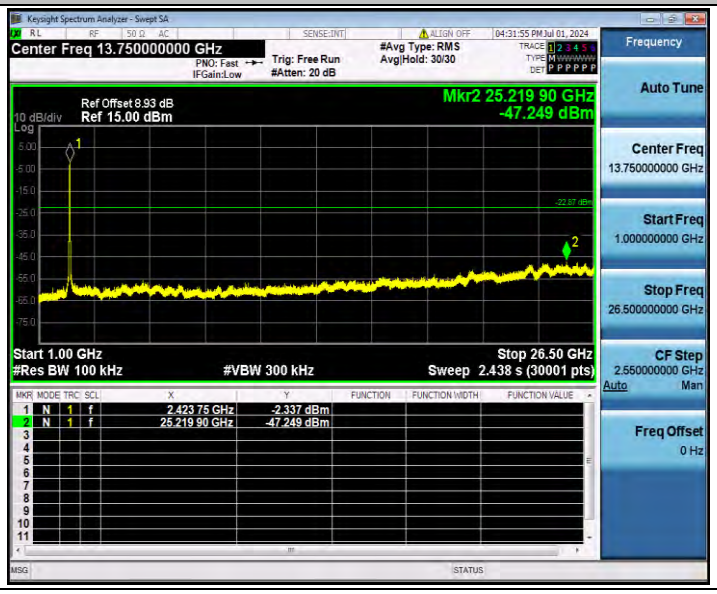


11N40SISO_Ant1_2422_0~Reference

11N40SISO_Ant1_2422_30~1000

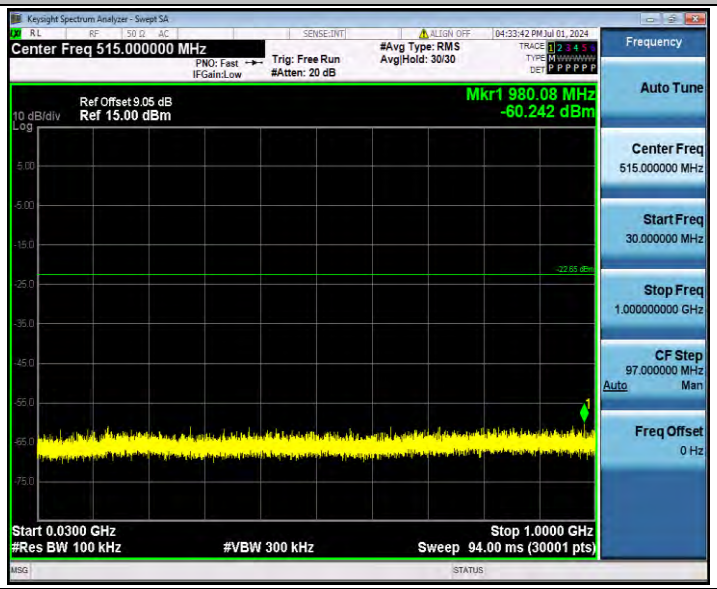


11N40SISO_Ant1_2422_1000~26500

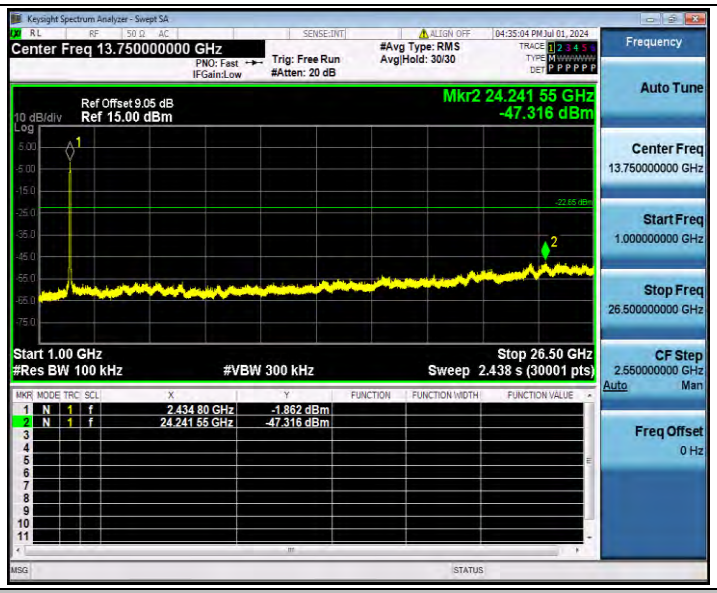


11N40SISO_Ant1_2437_0~Reference

11N40SISO_Ant1_2437_30~1000

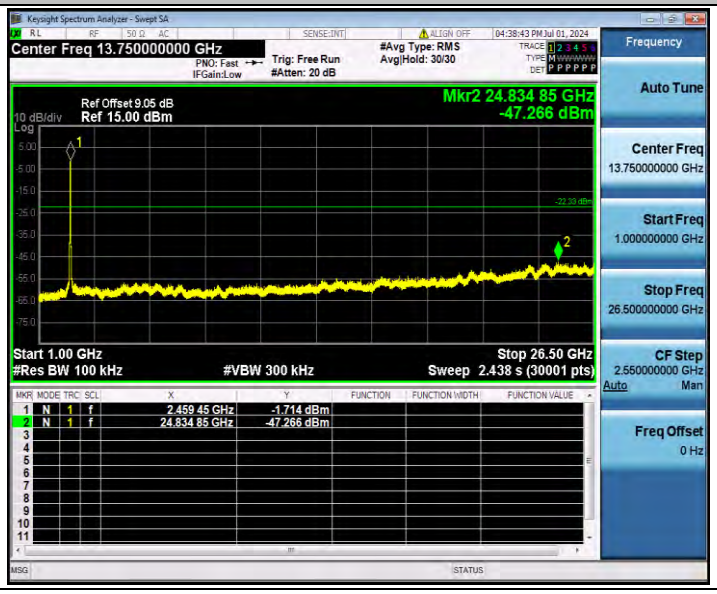


11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference

11N40SISO_Ant1_2452_30~1000

11N40SISO_Ant1_2452_1000~26500


Appendix B.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.55	≤-41.20	45.65	≤54	PASS
				AV	2386.320	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2390.000	-48.9	≤-41.20	46.30	≤54	PASS
				Peak	2310.000	-42.32	≤-21.20	52.88	≤74	PASS
				Peak	2365.650	-40.29	≤-21.20	54.91	≤74	PASS
				Peak	2390.000	-48.51	≤-21.20	46.69	≤74	PASS
		High	2462	AV	2483.500	-48.26	≤-41.20	46.94	≤54	PASS
				AV	2499.950	-48.16	≤-41.20	47.04	≤54	PASS
				AV	2500.000	-48.16	≤-41.20	47.04	≤54	PASS
				Peak	2483.500	-44.24	≤-21.20	50.96	≤74	PASS
				Peak	2496.980	-40.15	≤-21.20	55.05	≤74	PASS
				Peak	2500.000	-46.06	≤-21.20	49.14	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.36	≤-41.20	45.84	≤54	PASS
				AV	2389.960	-45.92	≤-41.20	49.28	≤54	PASS
				AV	2390.000	-45.92	≤-41.20	49.28	≤54	PASS
				Peak	2310.000	-46.18	≤-21.20	49.02	≤74	PASS
				Peak	2329.510	-39.46	≤-21.20	55.74	≤74	PASS
				Peak	2390.000	-41.55	≤-21.20	53.65	≤74	PASS
		High	2462	AV	2483.500	-45.33	≤-41.20	49.87	≤54	PASS
				AV	2483.560	-45.43	≤-41.20	49.77	≤54	PASS
				AV	2500.000	-47.39	≤-41.20	47.81	≤54	PASS
				Peak	2483.500	-45.32	≤-21.20	49.88	≤74	PASS
				Peak	2490.600	-37.78	≤-21.20	57.42	≤74	PASS
				Peak	2500.000	-44.88	≤-21.20	50.32	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.37	≤-41.20	45.83	≤54	PASS
				AV	2389.960	-46.97	≤-41.20	48.23	≤54	PASS
				AV	2390.000	-46.97	≤-41.20	48.23	≤54	PASS
				Peak	2310.000	-44.67	≤-21.20	50.53	≤74	PASS
				Peak	2386.320	-39.67	≤-21.20	55.53	≤74	PASS
				Peak	2390.000	-48.62	≤-21.20	46.58	≤74	PASS
		High	2462	AV	2483.500	-46.8	≤-41.20	48.40	≤54	PASS
				AV	2483.560	-46.85	≤-41.20	48.35	≤54	PASS
				AV	2500.000	-47.87	≤-41.20	47.33	≤54	PASS
				Peak	2483.500	-39.7	≤-21.20	55.50	≤74	PASS
				Peak	2489.720	-39.91	≤-21.20	55.29	≤74	PASS

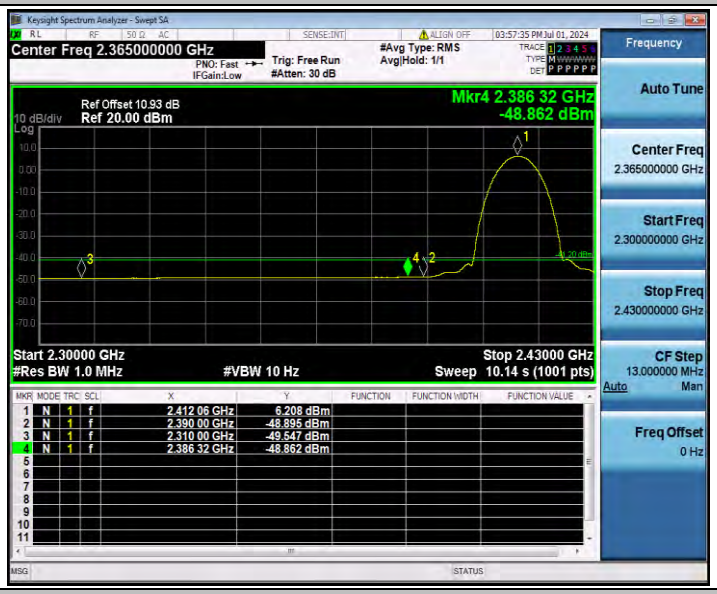
				Peak	2500.000	-43.76	≤-21.20	51.44	≤74	PASS
11N40SISO	Ant1	Low	2422	AV	2310.000	-49.37	≤-41.20	45.83	≤54	PASS
				AV	2389.960	-44.31	≤-41.20	50.89	≤54	PASS
				AV	2390.000	-44.31	≤-41.20	50.89	≤54	PASS
				Peak	2310.000	-47.62	≤-21.20	47.58	≤74	PASS
				Peak	2389.960	-36.47	≤-21.20	58.73	≤74	PASS
				Peak	2390.000	-36.47	≤-21.20	58.73	≤74	PASS
		High	2452	AV	2483.500	-45.14	≤-41.20	50.06	≤54	PASS
				AV	2483.890	-45.11	≤-41.20	50.09	≤54	PASS
				AV	2500.000	-47.69	≤-41.20	47.51	≤54	PASS
				Peak	2483.500	-42.34	≤-21.20	52.86	≤74	PASS
				Peak	2485.650	-38.08	≤-21.20	57.12	≤74	PASS
				Peak	2500.000	-48.63	≤-21.20	46.57	≤74	PASS

Note：

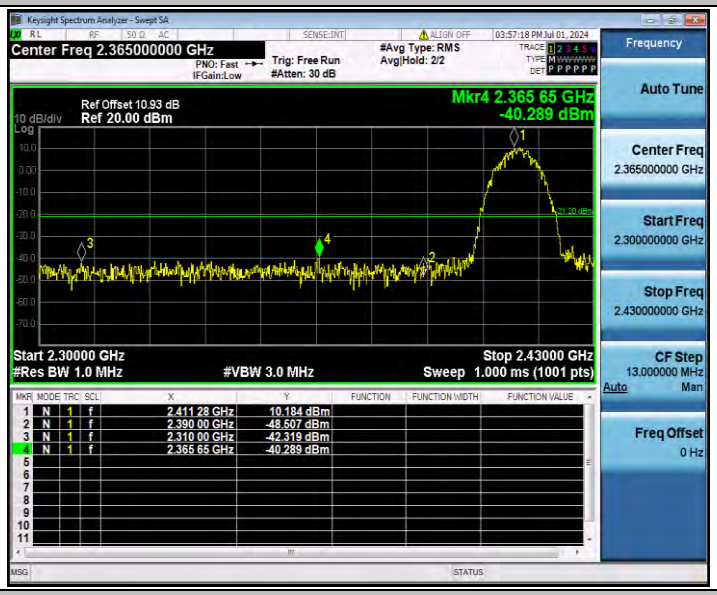
1. The Antenna Gain is compensated in the graph.
2. The Duty Cycle Factor and RBW Factor is compensated in the graph.
3. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

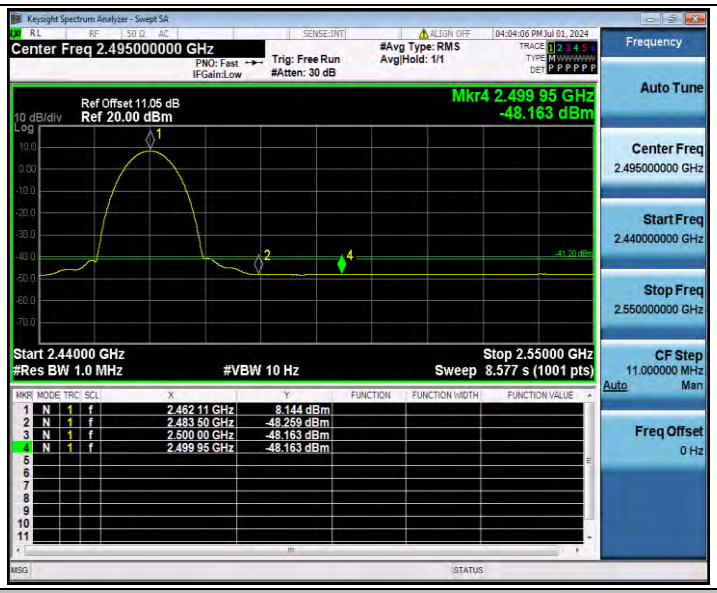
11B_Ant1_Low_2412_AV



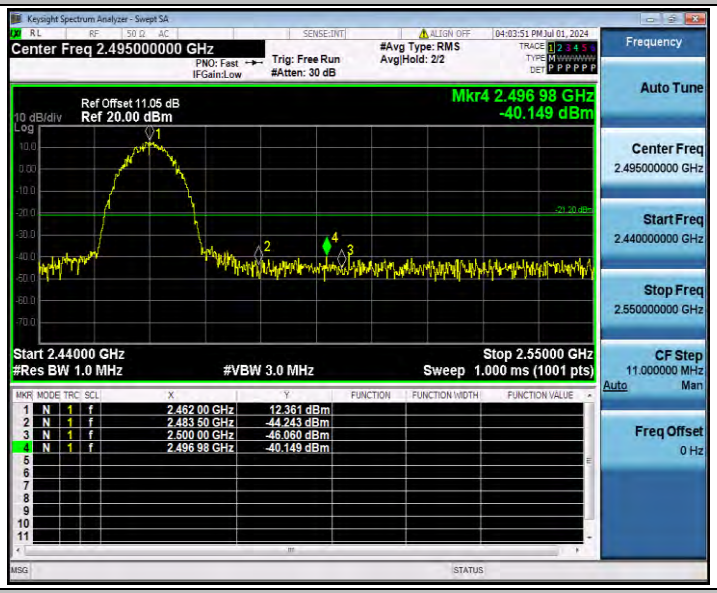
11B_Ant1_Low_2412_Peak



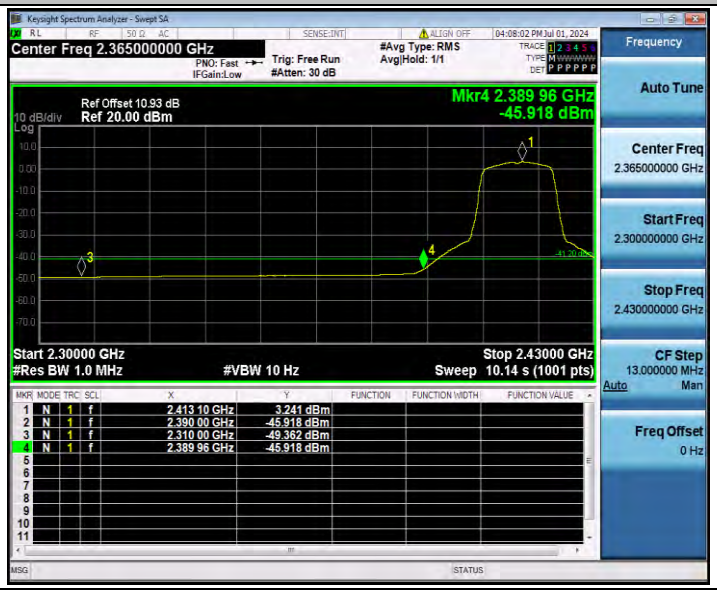
11B_Ant1_High_2462_AV



11B_Ant1_High_2462_Peak



11G_Ant1_Low_2412_AV



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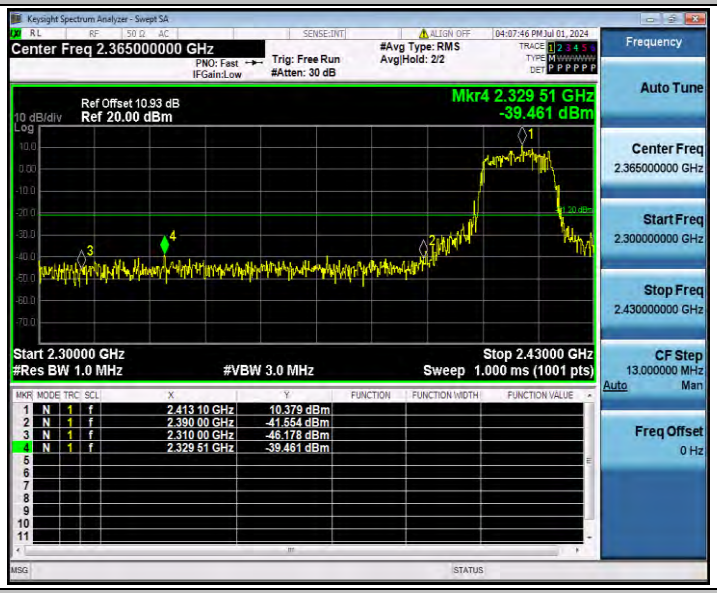

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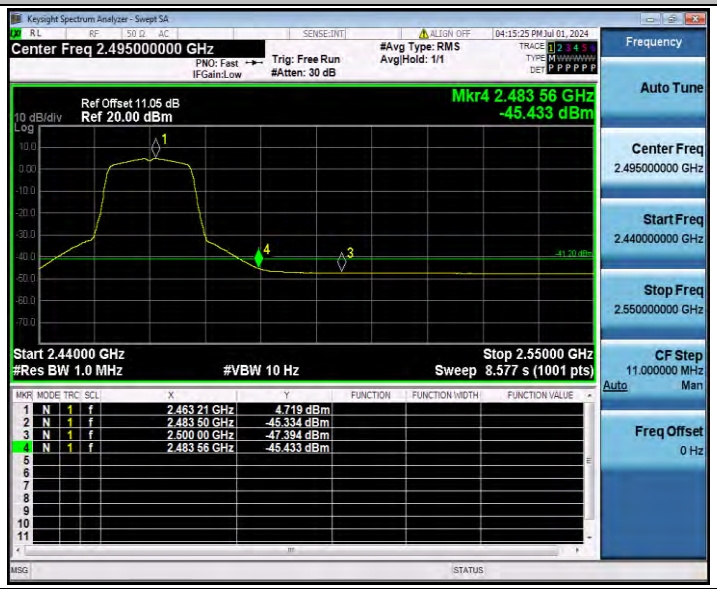
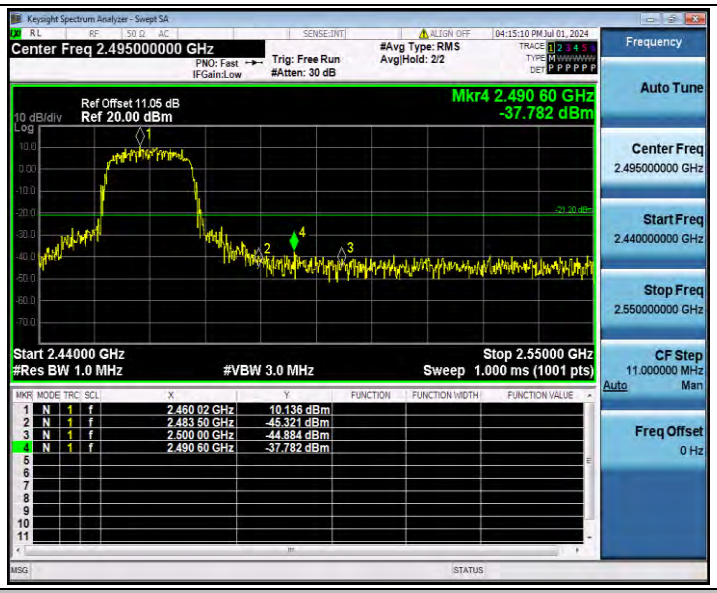
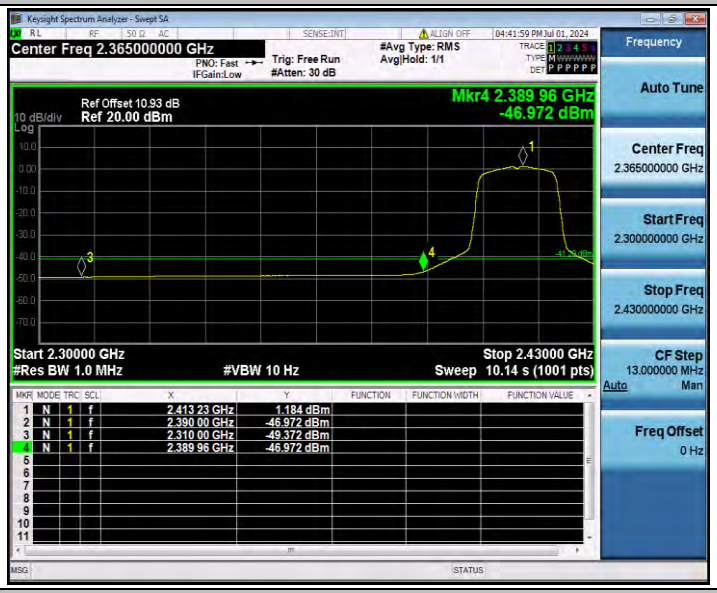


11G_Ant1_High_2462_Peak



11N20SISO_Ant1_Low_2412_AV



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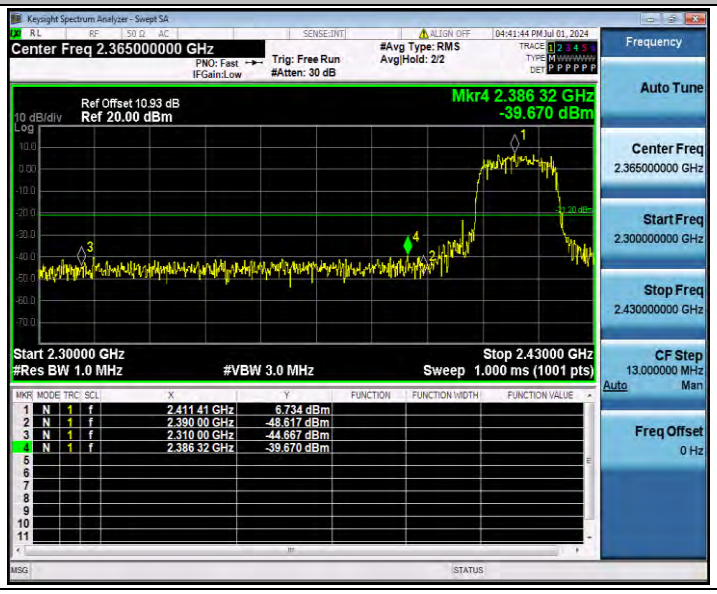
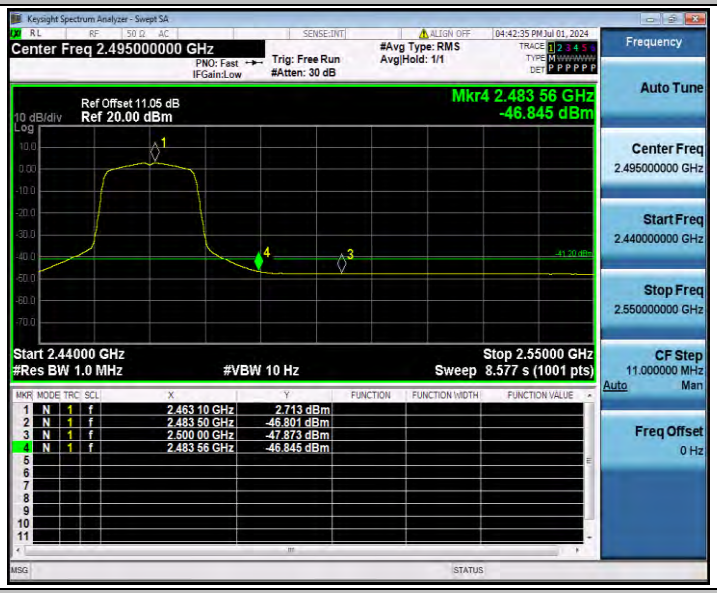


11N20SISO_Ant1_High_2462_AV



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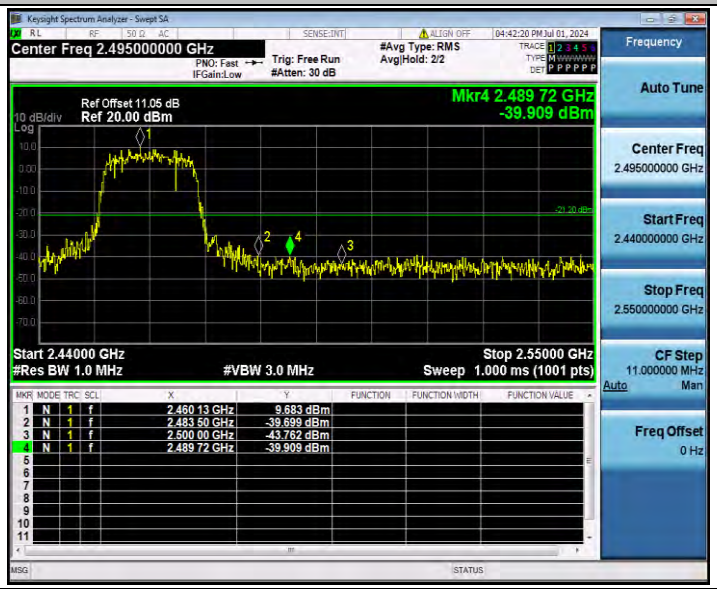
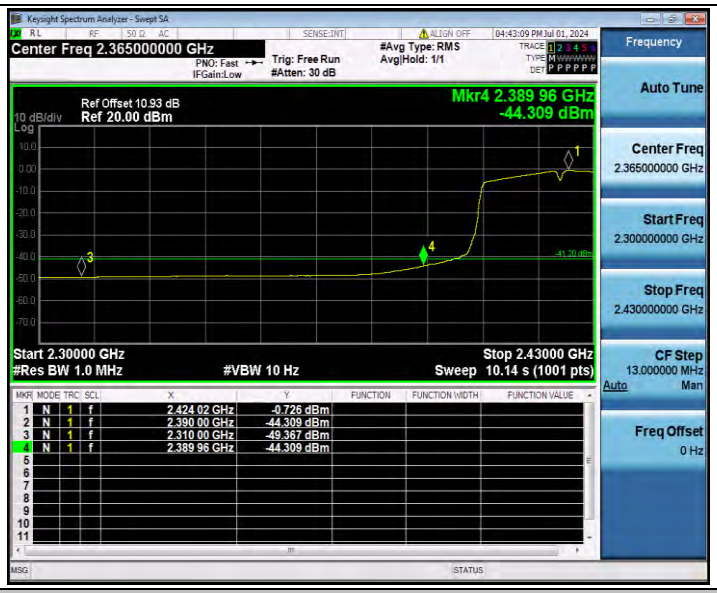
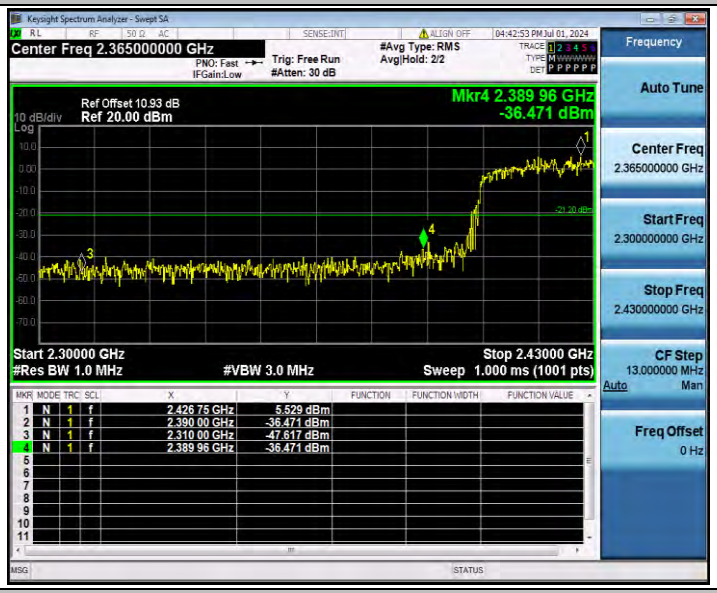


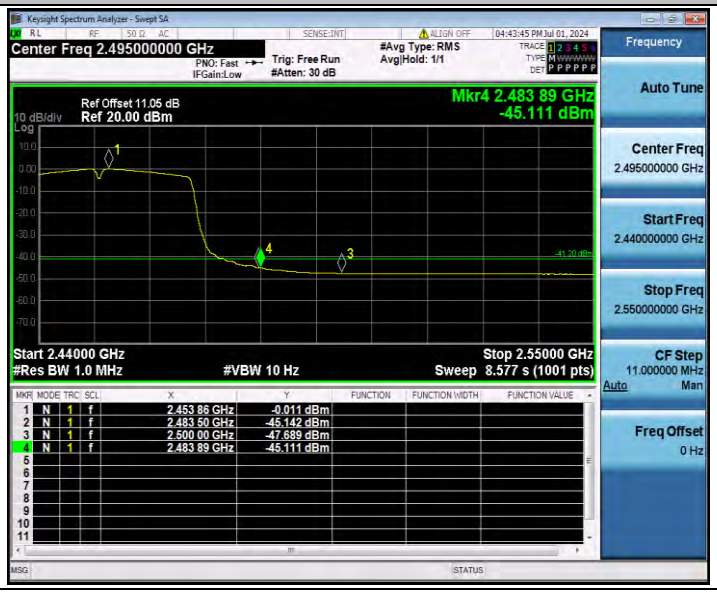
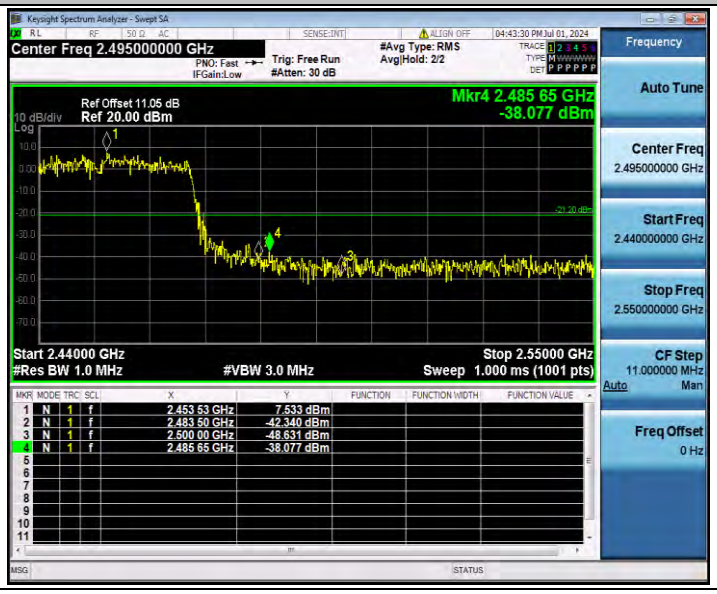
11N40SISO_Ant1_Low_2422_AV



11N40SISO_Ant1_Low_2422_Peak



11N40SISO_Ant1_High_2452_AV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