Case No. : CTA24071501903	
Ambient Condition: 21 ℃, 54 %RH,	
Test Date: 2024.6.20-2024.8.12	**Test Engineer:** Lushan Kong

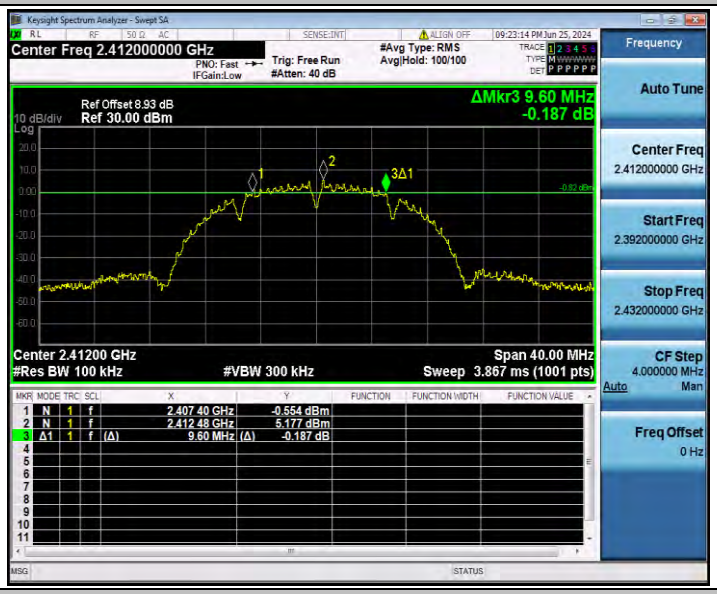
Appendix C.1: DTS Bandwidth

Test Result

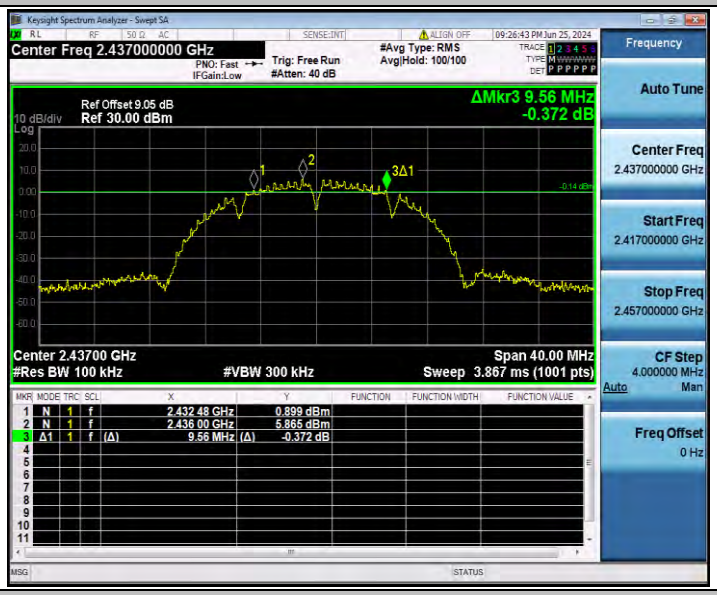
TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	9.600	2407.400	2417.000	0.5	PASS
		2437	9.560	2432.480	2442.040	0.5	PASS
		2462	10.040	2456.960	2467.000	0.5	PASS
11G	Ant2	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.320	2428.840	2445.160	0.5	PASS
		2462	16.360	2453.800	2470.160	0.5	PASS
11N20SISO	Ant2	2412	17.520	2403.240	2420.760	0.5	PASS
		2437	17.320	2428.480	2445.800	0.5	PASS
		2462	17.320	2453.440	2470.760	0.5	PASS
11N40SISO	Ant2	2422	36.000	2404.080	2440.080	0.5	PASS
		2437	35.600	2419.240	2454.840	0.5	PASS
		2452	35.760	2434.080	2469.840	0.5	PASS

Test Graphs

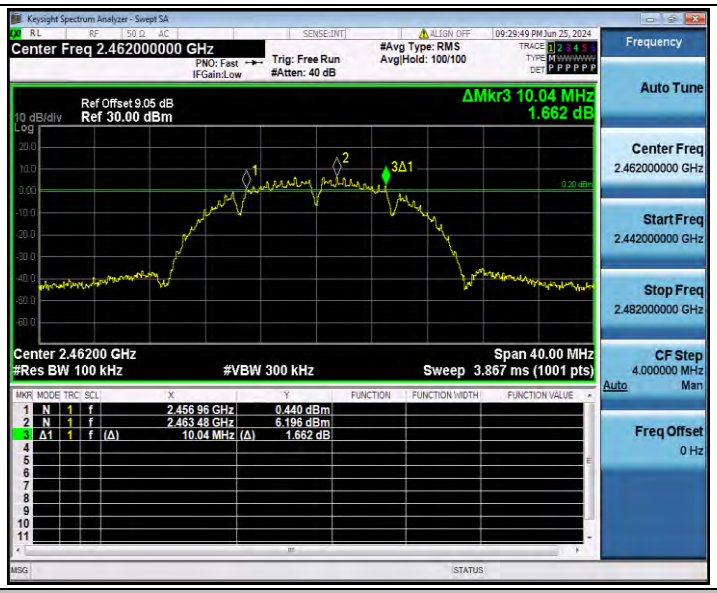
11B_Ant2_2412



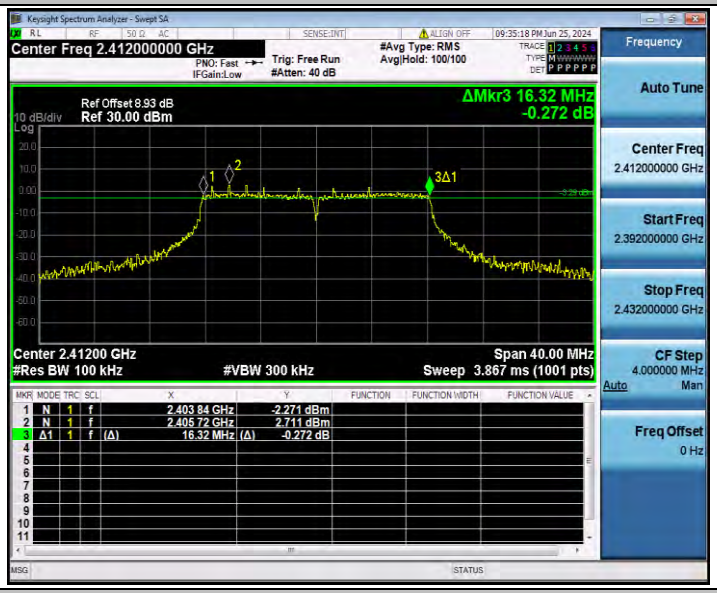
11B_Ant2_2437



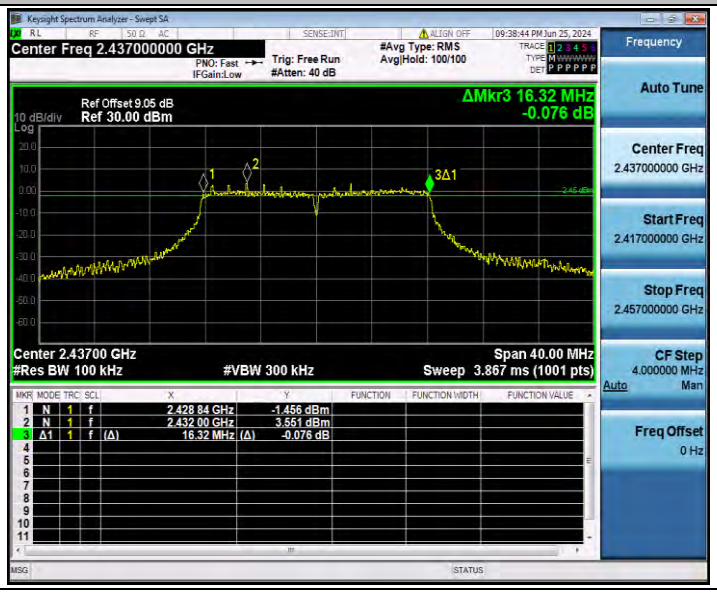
11B_Ant2_2462



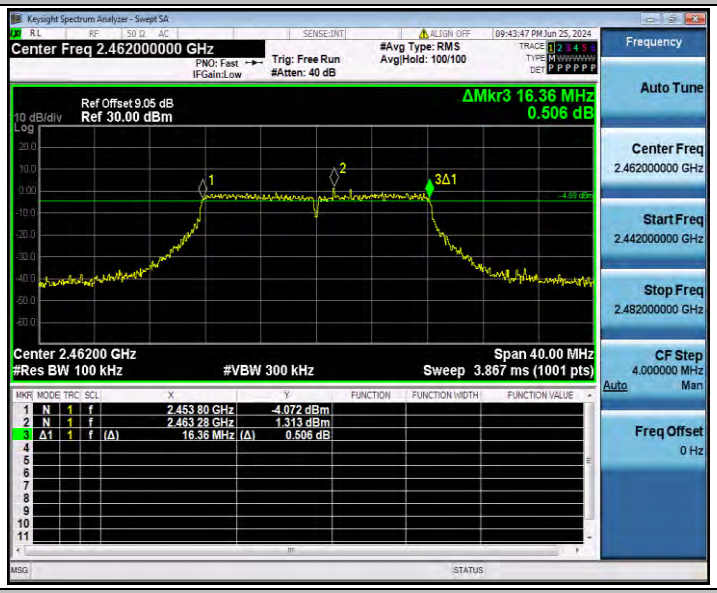
11G_Ant2_2412



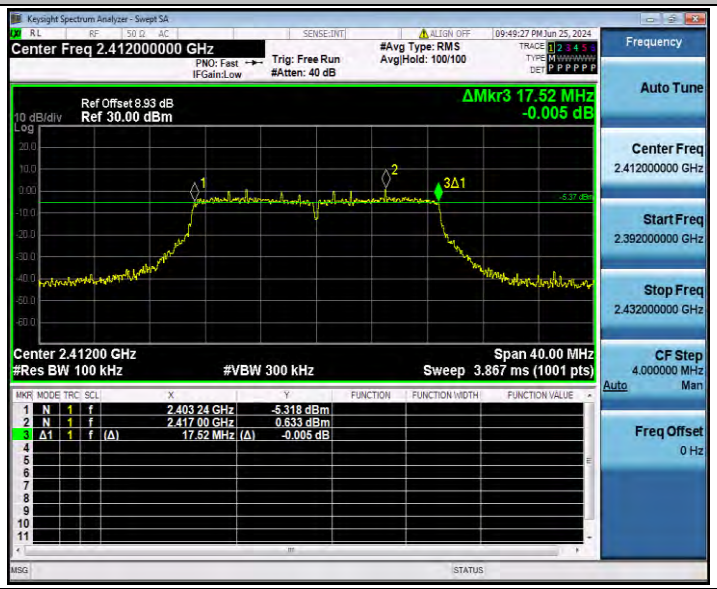
11G_Ant2_2437



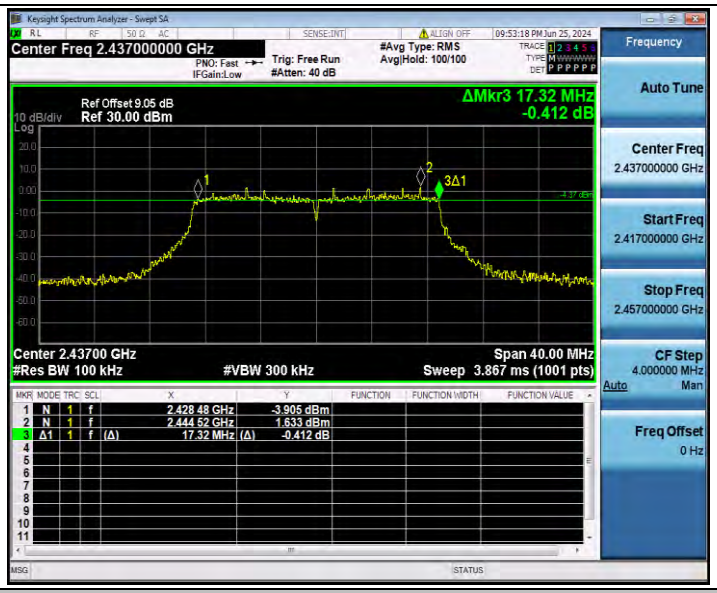
11G_Ant2_2462



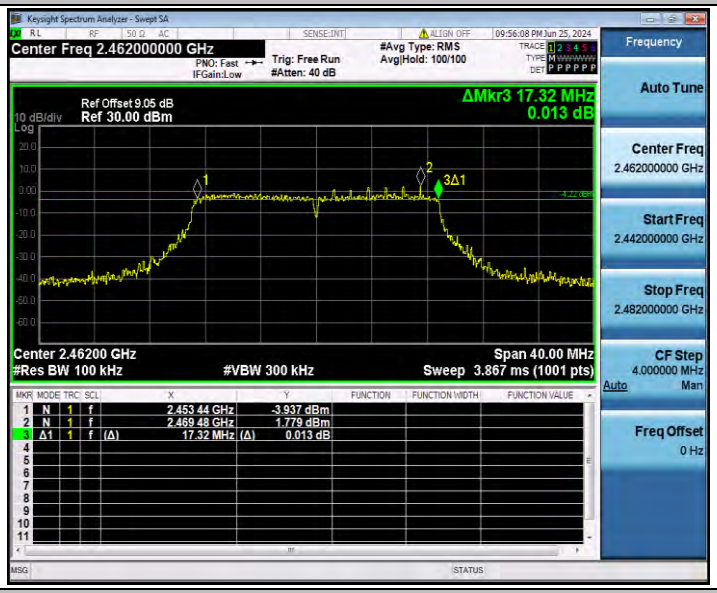
11N20SISO_Ant2_2412



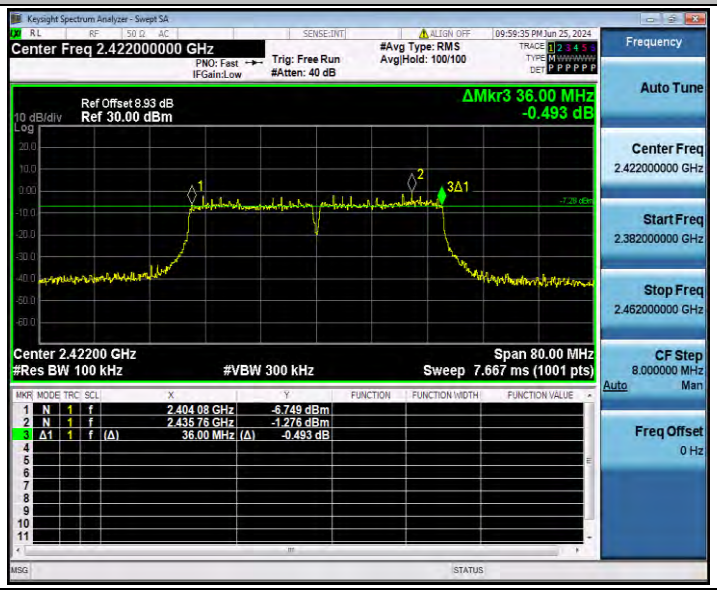
11N20SISO_Ant2_2437

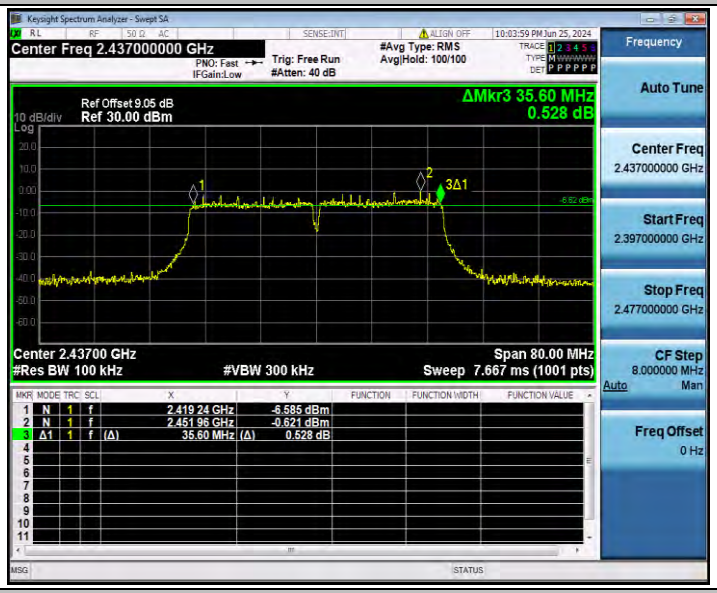


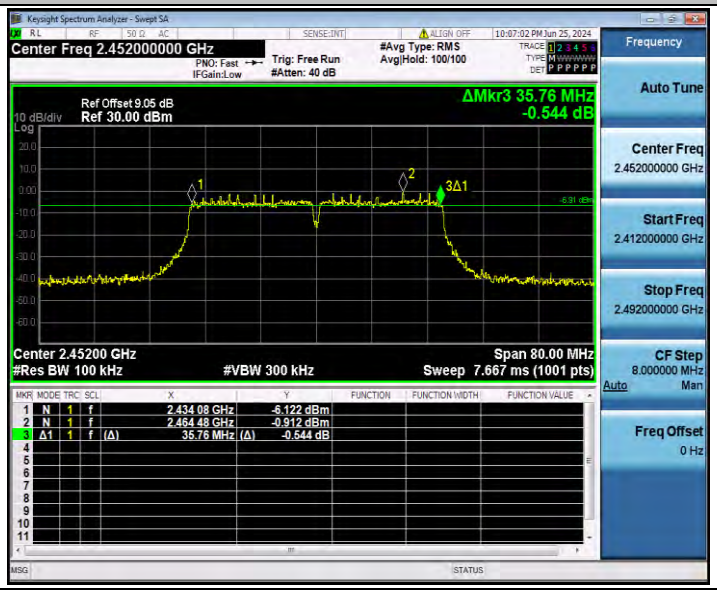
11N20SISO_Ant2_2462



11N40SISO_Ant2_2422



11N40SISO_Ant2_2437


11N40SISO_Ant2_2452


Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant2	2412	15.210	2404.3954	2419.6054	---	---
		2437	15.139	2429.4713	2444.6103	---	---
		2462	15.144	2454.4155	2469.5595	---	---
11G	Ant2	2412	17.252	2403.3278	2420.5798	---	---
		2437	17.240	2428.4147	2445.6547	---	---
		2462	17.166	2453.3618	2470.5278	---	---
11N20SISO	Ant2	2412	18.081	2402.9454	2421.0264	---	---
		2437	18.083	2427.9802	2446.0632	---	---
		2462	18.127	2452.9682	2471.0952	---	---
11N40SISO	Ant2	2422	36.539	2403.8081	2440.3471	---	---
		2437	36.650	2418.8257	2455.4757	---	---
		2452	36.510	2433.7570	2470.2670	---	---

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 C.3: Maximum conducted output power

Test Result -CHP

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant2	2412	17.22	≤30.00	PASS
		2437	18.19	≤30.00	PASS
		2462	18.65	≤30.00	PASS
11G	Ant2	2412	20.72	≤30.00	PASS
		2437	21.82	≤30.00	PASS
		2462	20.22	≤30.00	PASS
11N20SISO	Ant2	2412	18.67	≤30.00	PASS
		2437	19.82	≤30.00	PASS
		2462	20.26	≤30.00	PASS
11N40SISO	Ant2	2422	19.40	≤30.00	PASS
		2437	20.02	≤30.00	PASS
		2452	20.33	≤30.00	PASS

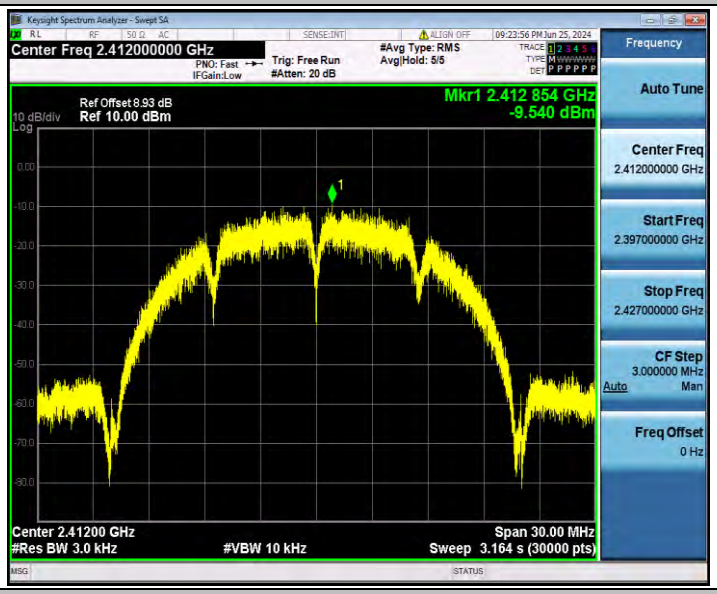
Appendix C.4: Maximum power spectral density

Test Result

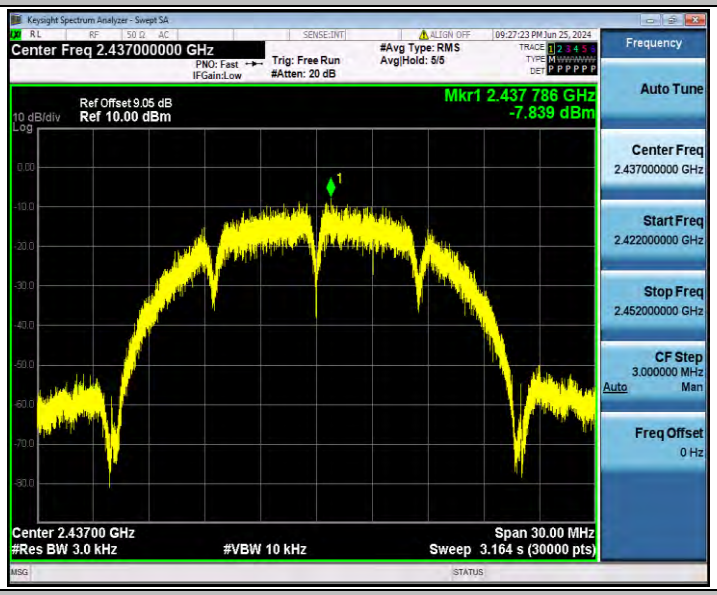
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant2	2412	-9.54	≤8.00	PASS
		2437	-7.84	≤8.00	PASS
		2462	-7.31	≤8.00	PASS
11G	Ant2	2412	-12.47	≤8.00	PASS
		2437	-10.95	≤8.00	PASS
		2462	-12.20	≤8.00	PASS
11N20SISO	Ant2	2412	-13.63	≤8.00	PASS
		2437	-13.06	≤8.00	PASS
		2462	-12.85	≤8.00	PASS
11N40SISO	Ant2	2422	-16.15	≤8.00	PASS
		2437	-14.90	≤8.00	PASS
		2452	-15.87	≤8.00	PASS

Test Graphs

11B_Ant2_2412

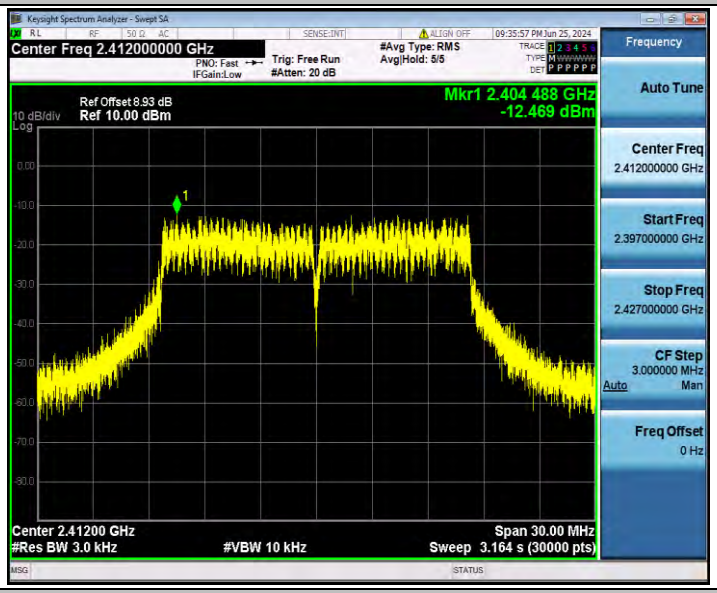


11B_Ant2_2437

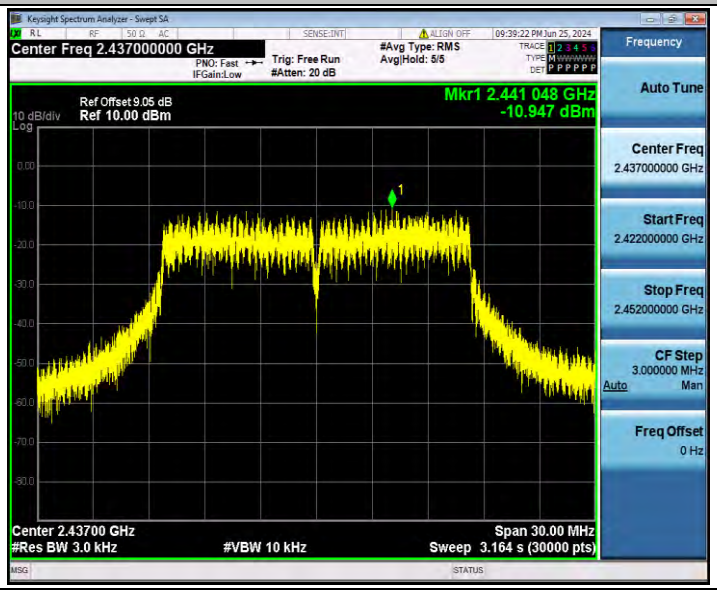


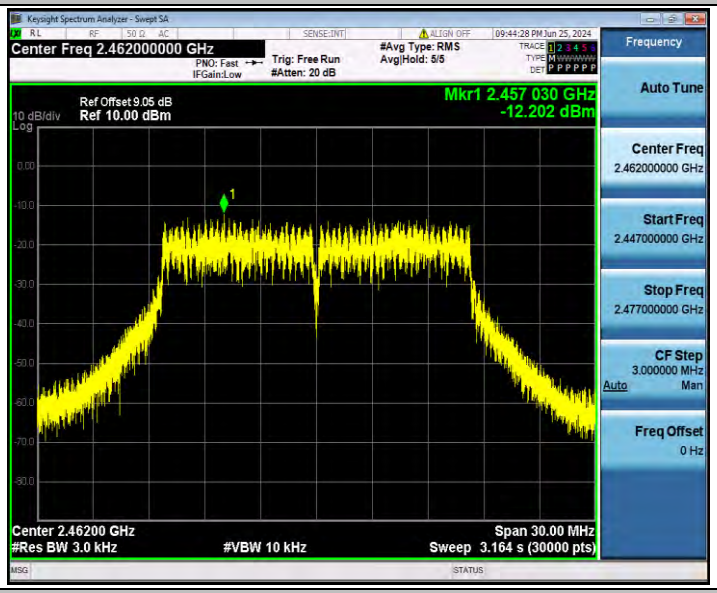
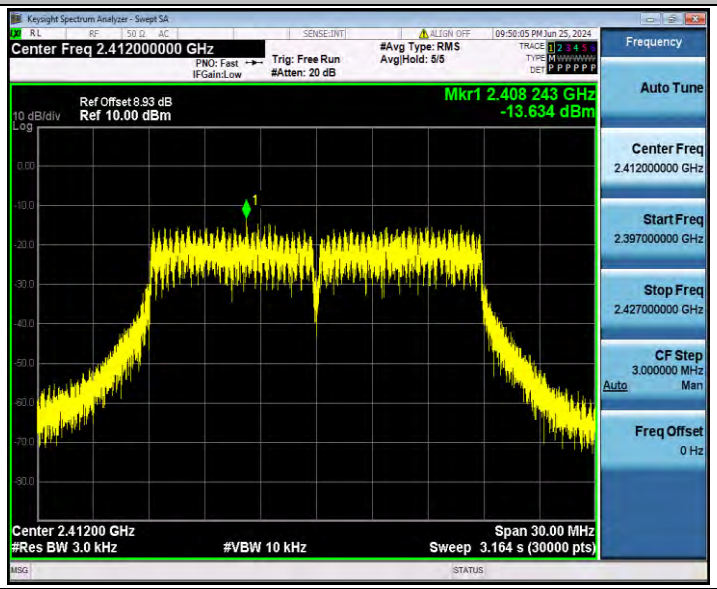
11B_Ant2_2462

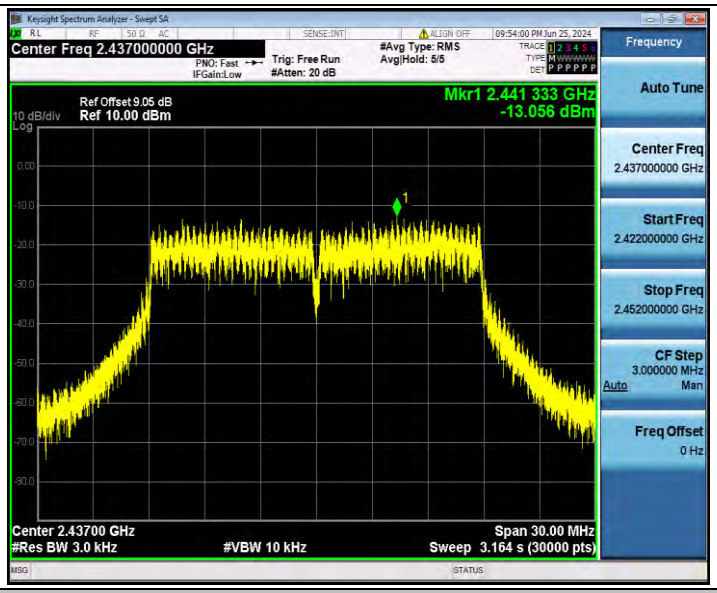
11G_Ant2_2412



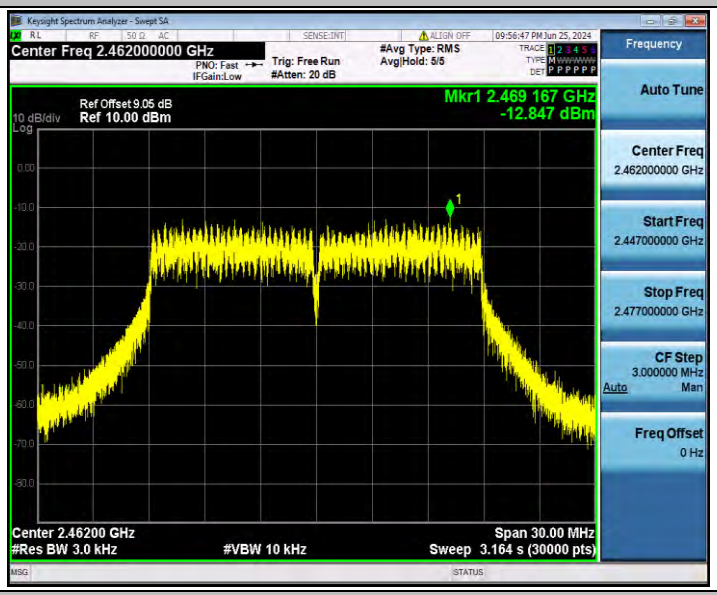
11G_Ant2_2437



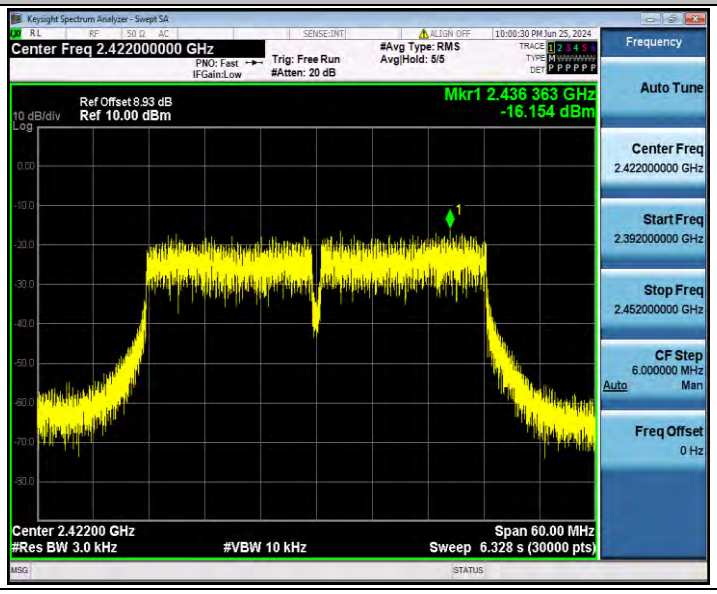
11G_Ant2_2462

11N20SISO_Ant2_2412

11N20SISO_Ant2_2437

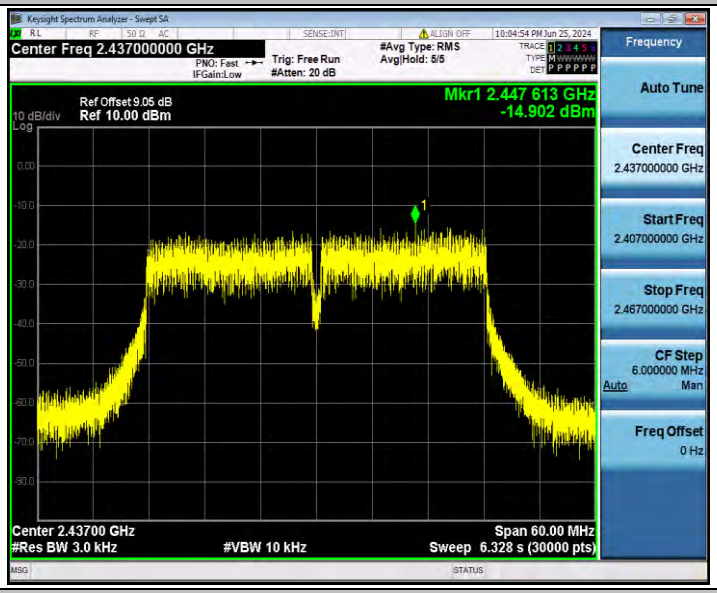


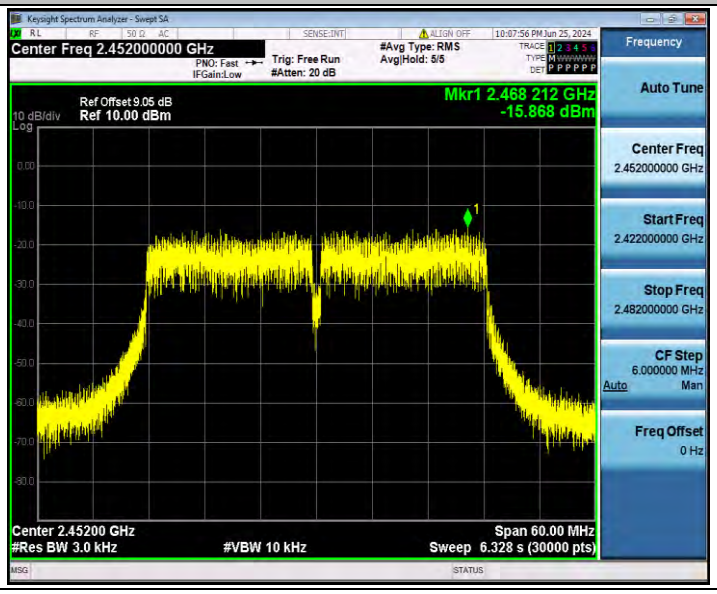
11N20SISO_Ant2_2462



11N40SISO_Ant2_2422



11N40SISO_Ant2_2437


11N40SISO_Ant2_2452


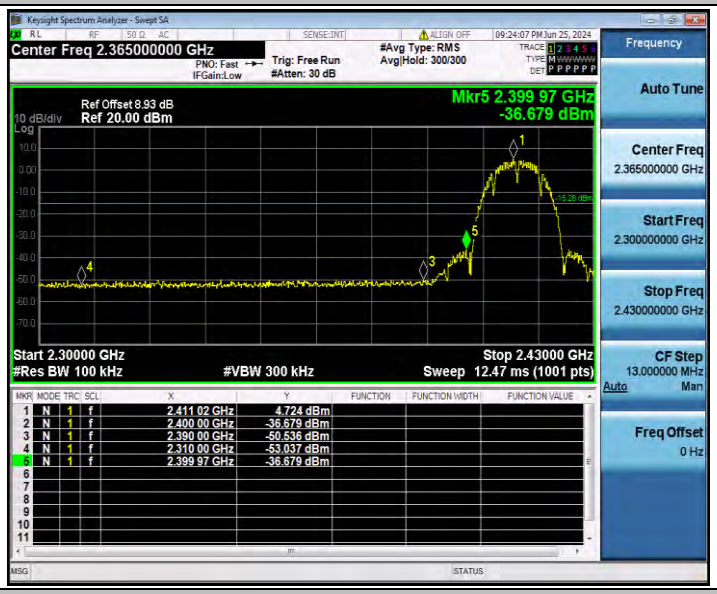
Appendix C.5: Band edge measurements

Test Result

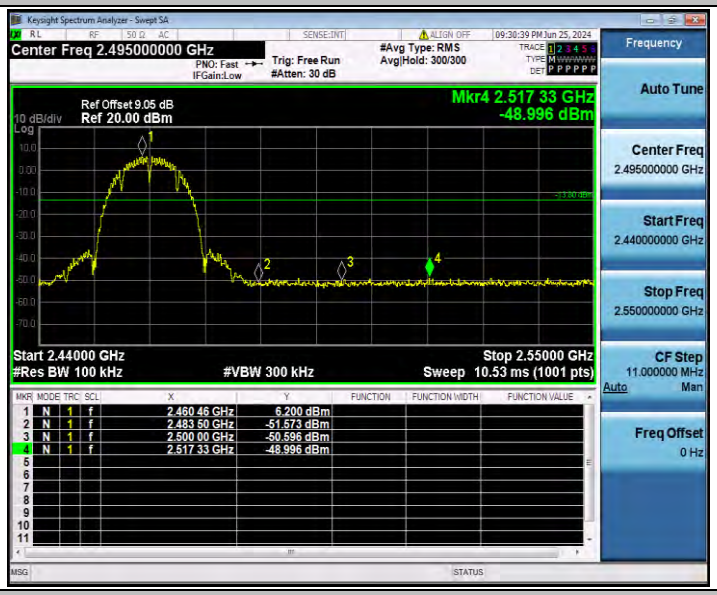
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant2	Low	2412	4.72	-36.68	≤-15.28	PASS
		High	2462	6.20	-49	≤-13.8	PASS
11G	Ant2	Low	2412	2.61	-28.36	≤-17.39	PASS
		High	2462	1.89	-45.93	≤-18.11	PASS
11N20SISO	Ant2	Low	2412	0.63	-33.44	≤-19.37	PASS
		High	2462	2.16	-44.37	≤-17.84	PASS
11N40SISO	Ant2	Low	2422	-2.11	-35.08	≤-22.11	PASS
		High	2452	-0.70	-40.52	≤-20.7	PASS

Test Graphs

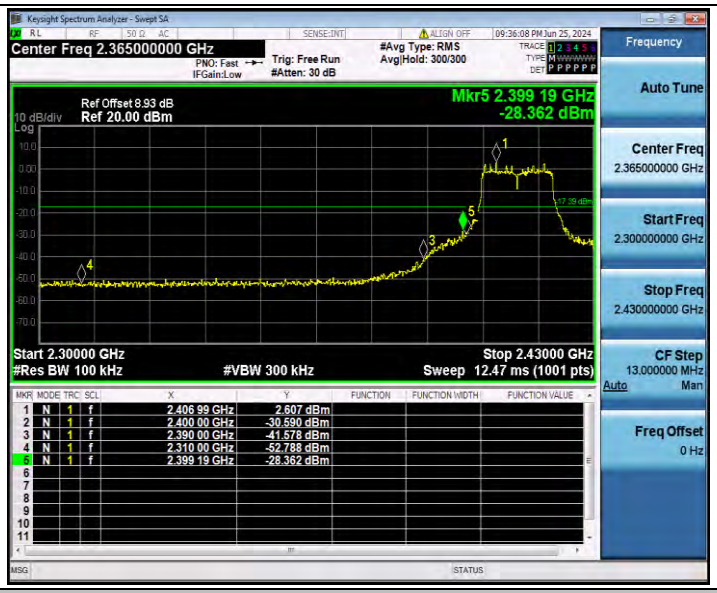
11B_Ant2_Low_2412



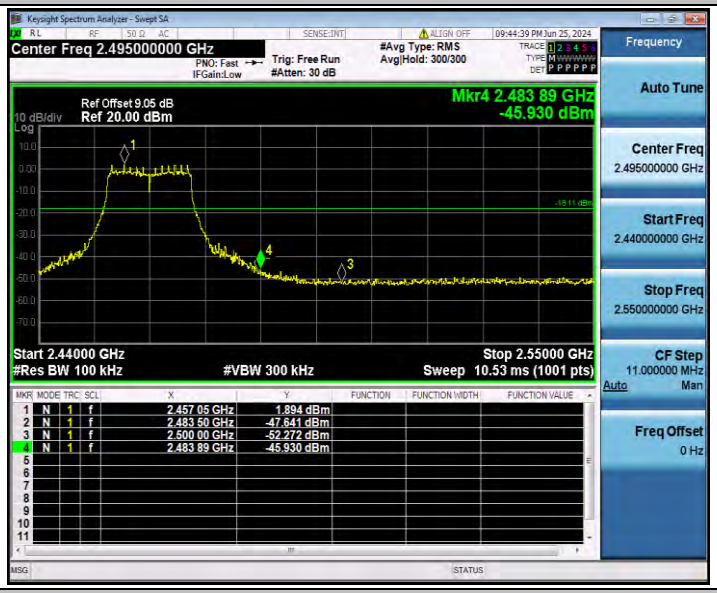
11B_Ant2_High_2462



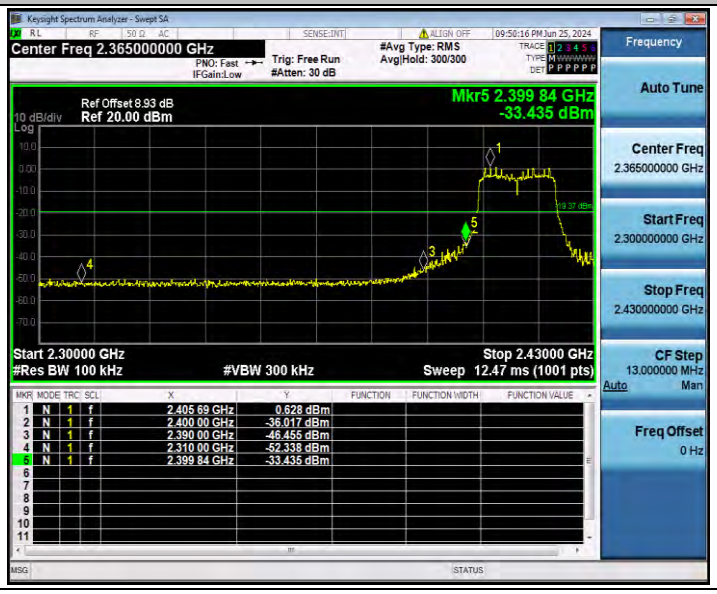
11G_Ant2_Low_2412



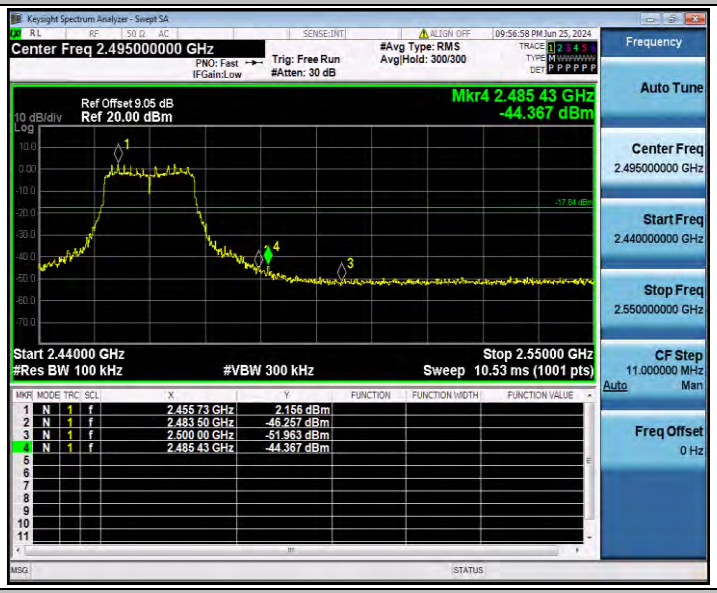
11G_Ant2_High_2462



11N20SISO_Ant2_Low_2412

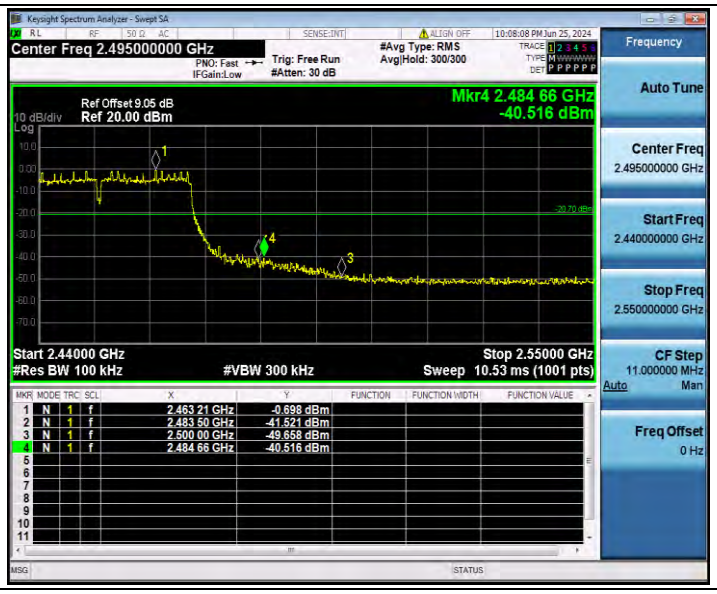


11N20SISO_Ant2_High_2462



11N40SISO_Ant2_Low_2422

11N40SISO_Ant2_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
10:08:08 PM Jun 25, 2024
Ref Offset 9.05 dB
10 dB/div Ref 20.00 dBm
Log
Mkr4 2.484 66 GHz
-40.516 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 2.463 21 GHz -0.698 dBm
2 N 1 f 2.483 50 GHz -41.521 dBm
3 N 1 f 2.500 00 GHz -49.658 dBm
4 N 1 f 2.484 66 GHz -40.516 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 C.6: Conducted Spurious Emission

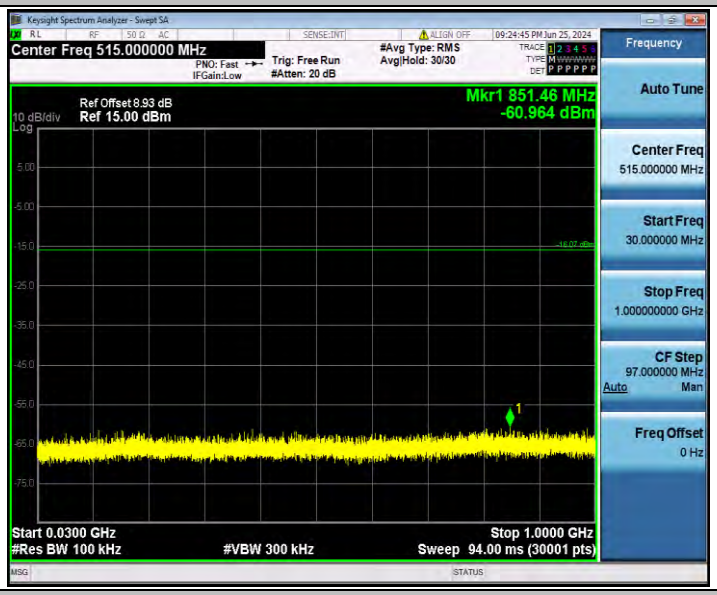
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant2	2412	Reference	3.93	3.93	---	PASS
			30~1000	3.93	-60.96	≤-16.07	PASS
			1000~26500	3.93	-47.58	≤-16.07	PASS
		2437	Reference	4.63	4.63	---	PASS
			30~1000	4.63	-47.77	≤-15.37	PASS
			1000~26500	4.63	-47.5	≤-15.37	PASS
		2462	Reference	5.24	5.24	---	PASS
			30~1000	5.24	-52.78	≤-14.76	PASS
			1000~26500	5.24	-47.72	≤-14.76	PASS
11G	Ant2	2412	Reference	-0.97	-0.97	---	PASS
			30~1000	-0.97	-60.5	≤-20.97	PASS
			1000~26500	-0.97	-47.65	≤-20.97	PASS
		2437	Reference	3.81	3.81	---	PASS
			30~1000	3.81	-60.44	≤-16.19	PASS
			1000~26500	3.81	-47.43	≤-16.19	PASS
		2462	Reference	-1.03	-1.03	---	PASS
			30~1000	-1.03	-60.46	≤-21.03	PASS
			1000~26500	-1.03	-47.98	≤-21.03	PASS
11N20SISO	Ant2	2412	Reference	-1.11	-1.11	---	PASS
			30~1000	-1.11	-60.28	≤-21.11	PASS
			1000~26500	-1.11	-48.17	≤-21.11	PASS
		2437	Reference	0.66	0.66	---	PASS
			30~1000	0.66	-60.91	≤-19.34	PASS
			1000~26500	0.66	-47.34	≤-19.34	PASS
		2462	Reference	0.51	0.51	---	PASS
			30~1000	0.51	-60.76	≤-19.49	PASS
			1000~26500	0.51	-47.2	≤-19.49	PASS
11N40SISO	Ant2	2422	Reference	-1.53	-1.53	---	PASS
			30~1000	-1.53	-60.38	≤-21.53	PASS
			1000~26500	-1.53	-43.54	≤-21.53	PASS
		2437	Reference	-0.48	-0.48	---	PASS
			30~1000	-0.48	-60.78	≤-20.48	PASS
			1000~26500	-0.48	-47.79	≤-20.48	PASS
		2452	Reference	-6.50	-6.50	---	PASS
			30~1000	-6.50	-60.7	≤-26.5	PASS
			1000~26500	-6.50	-48.44	≤-26.5	PASS

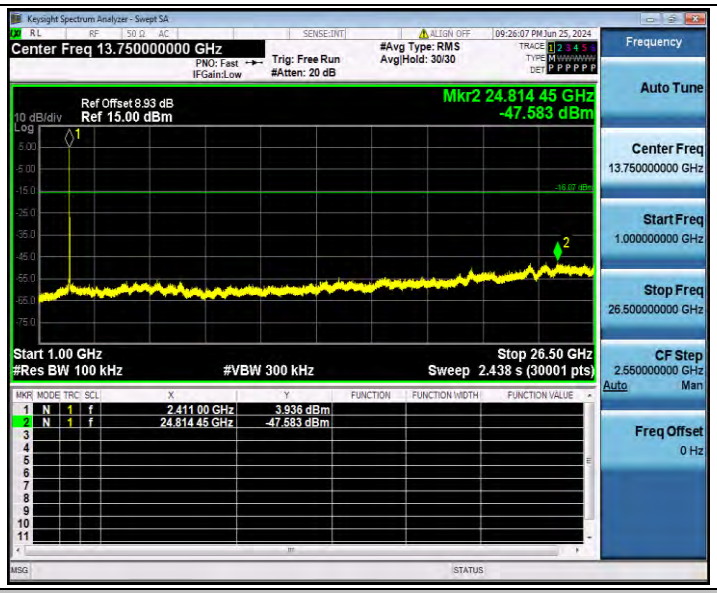
Test Graphs

11B_Ant2_2412_0~Reference

11B_Ant2_2412_30~1000

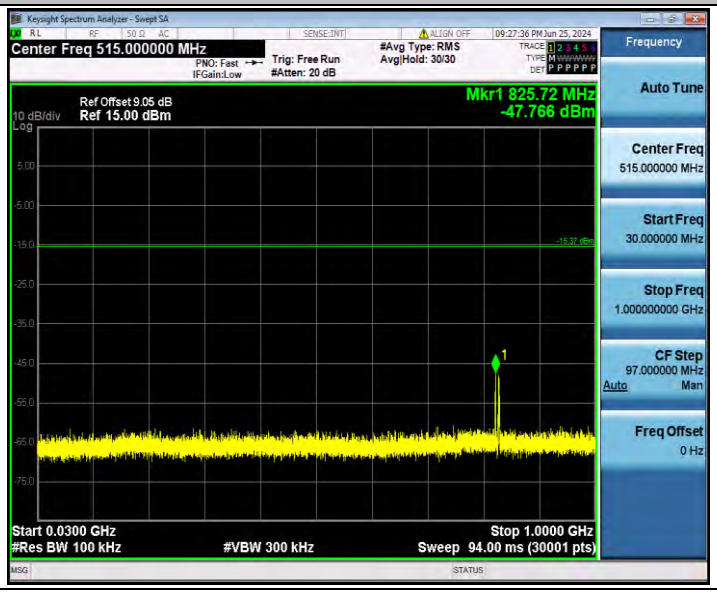


11B_Ant2_2412_1000~26500

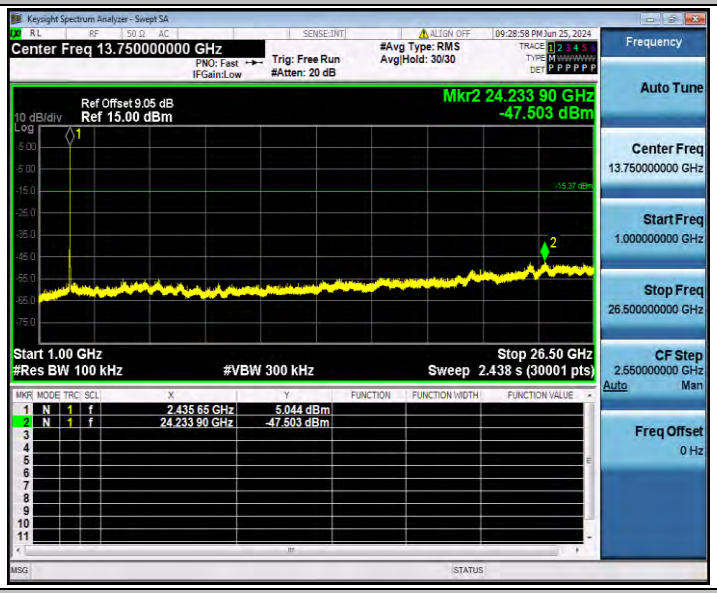


11B_Ant2_2437_0~Reference

11B_Ant2_2437_30~1000

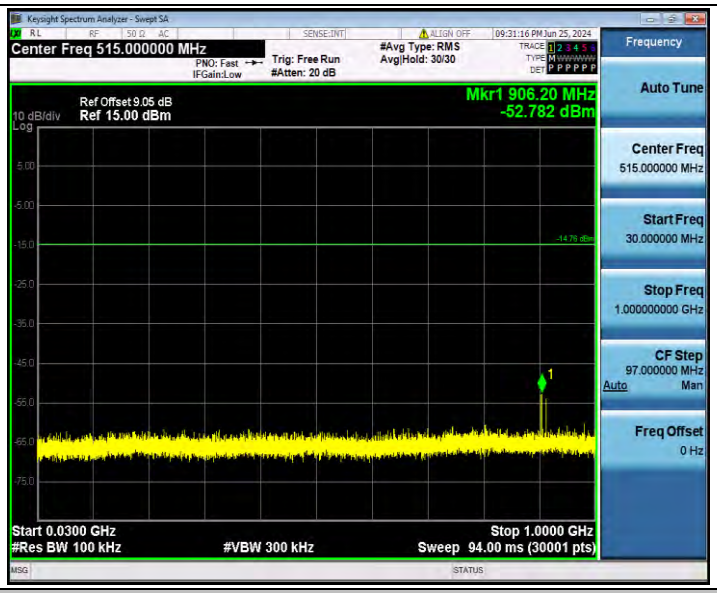


11B_Ant2_2437_1000~26500



11B_Ant2_2462_0~Reference

11B_Ant2_2462_30~1000



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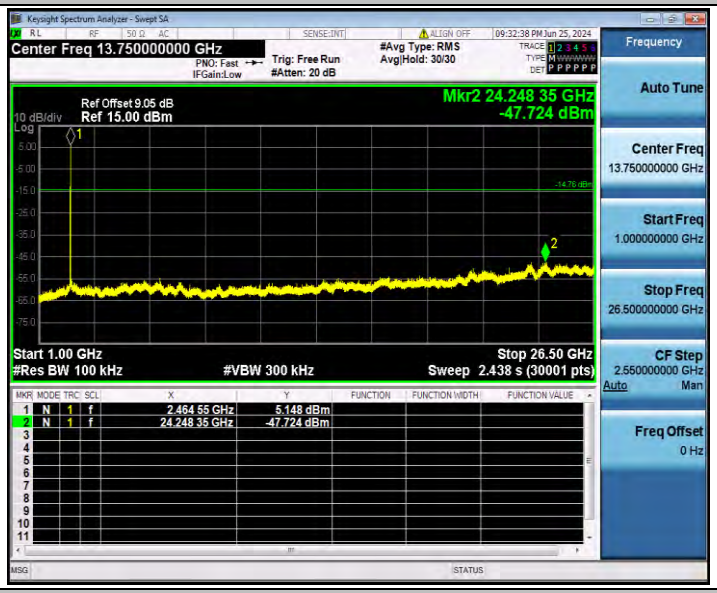
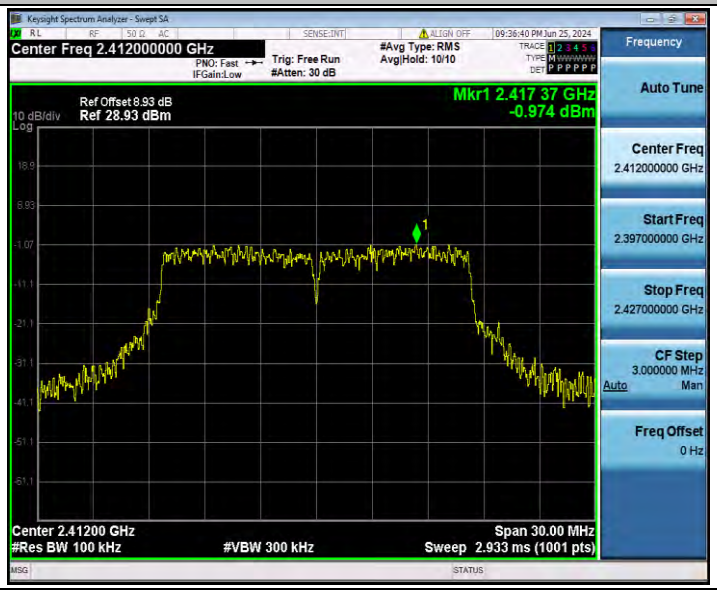


11G_Ant2_2412_0~Reference



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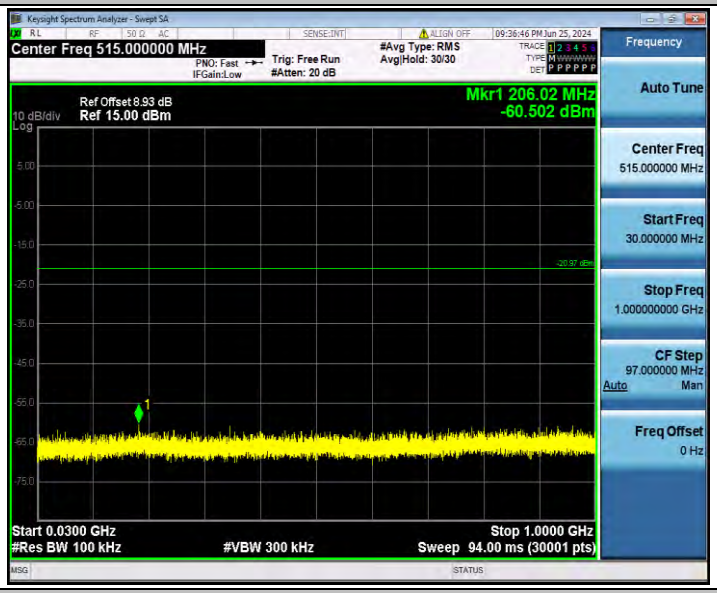
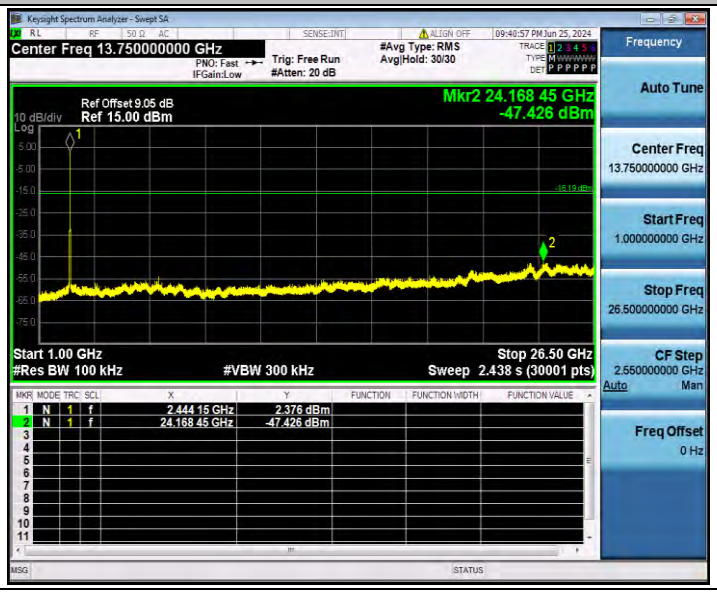


11G_Ant2_2412_1000~26500

11G_Ant2_2437_0~Reference

11G_Ant2_2437_30~1000

11G_Ant2_2437_1000~26500



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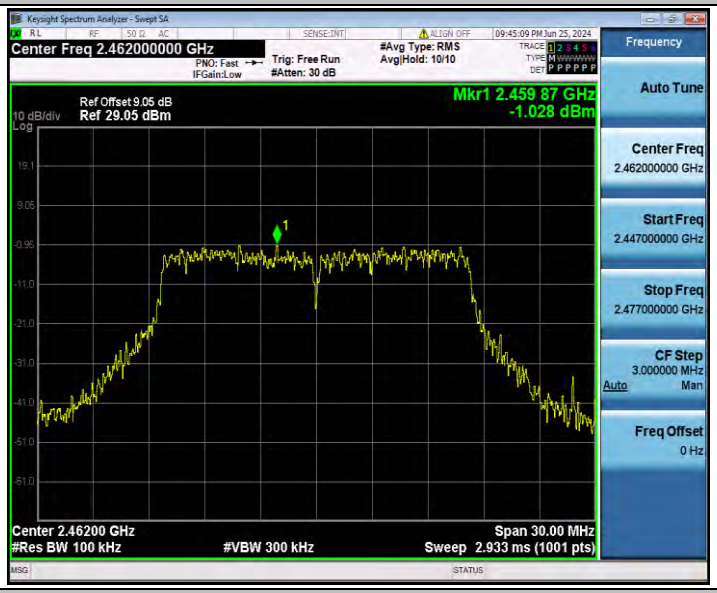

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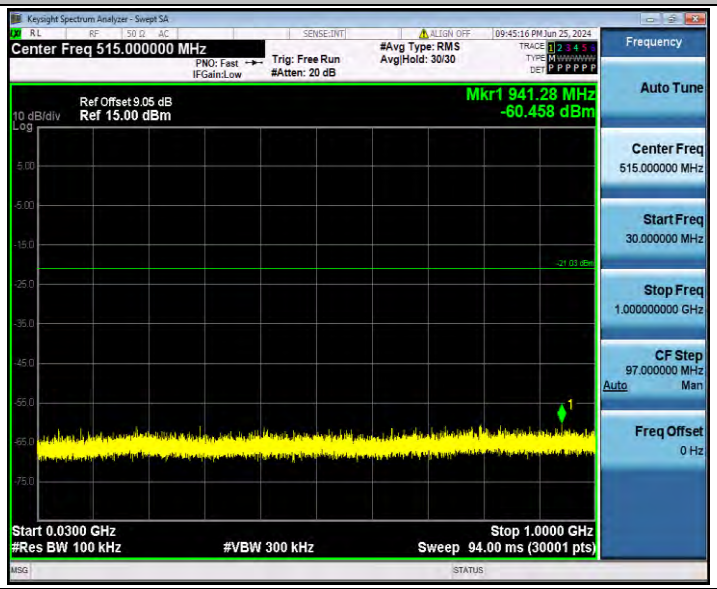

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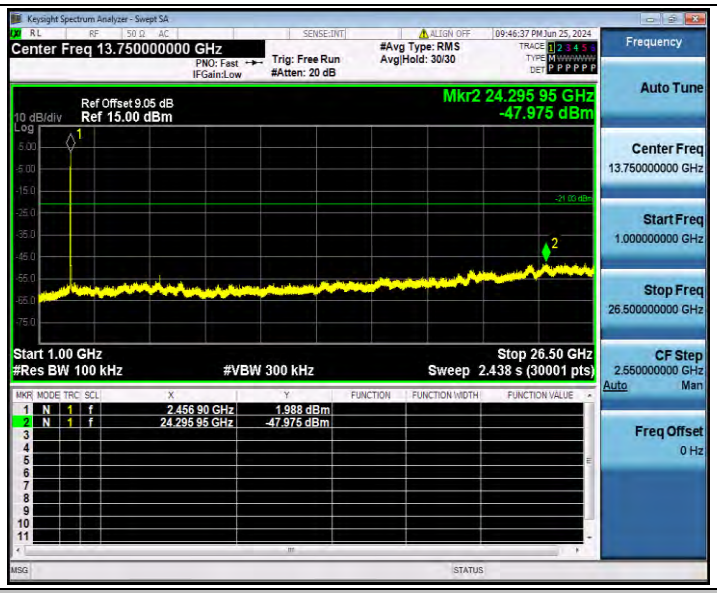

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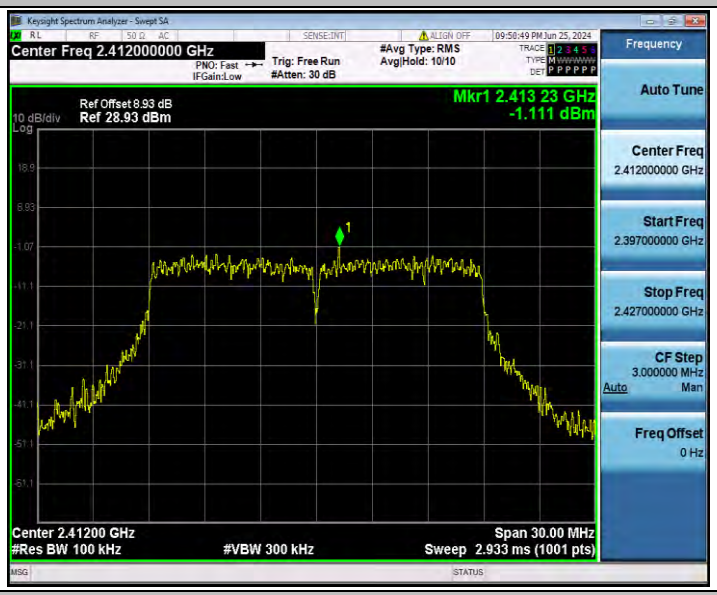

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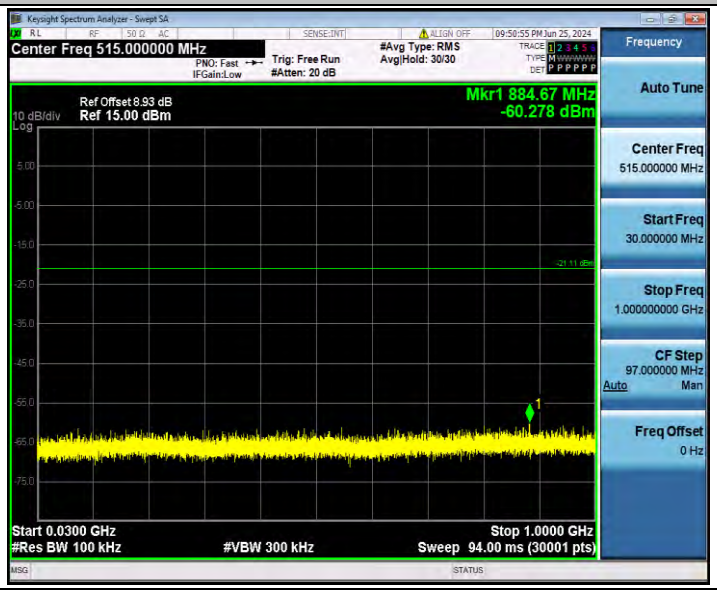

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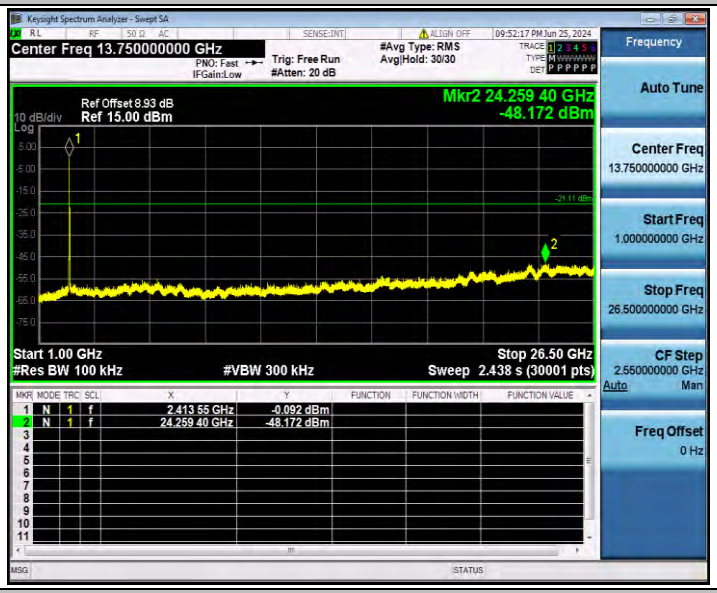

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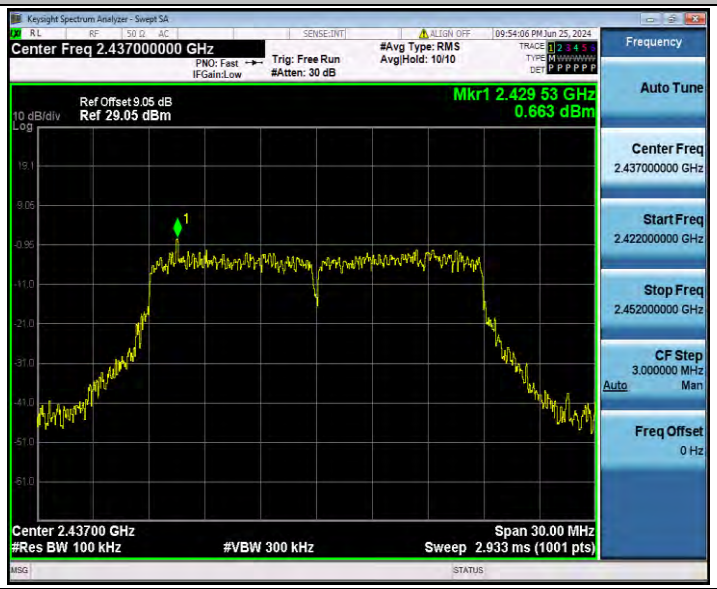

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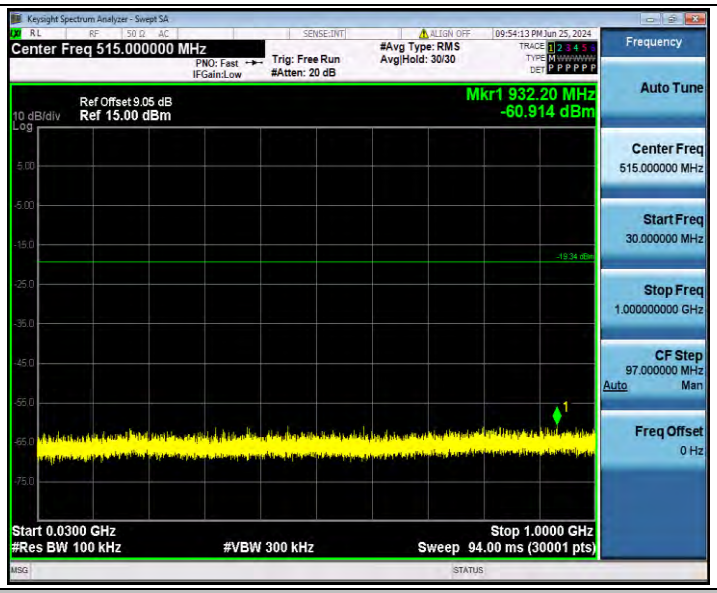

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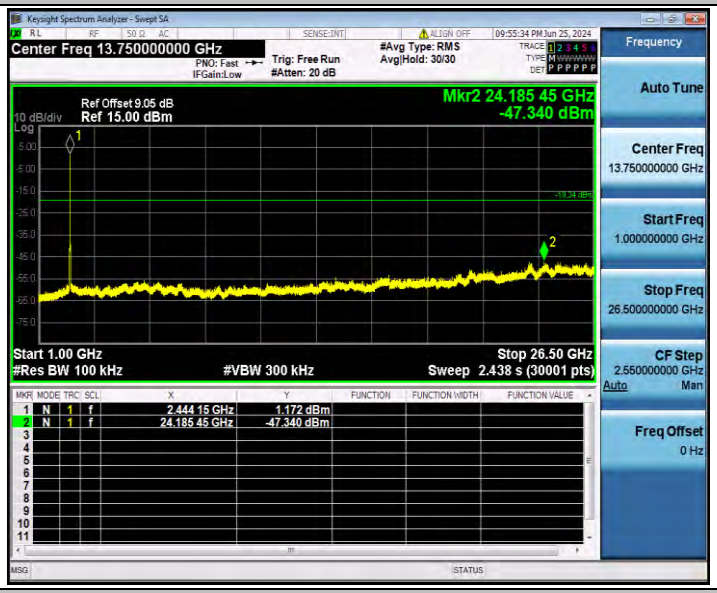

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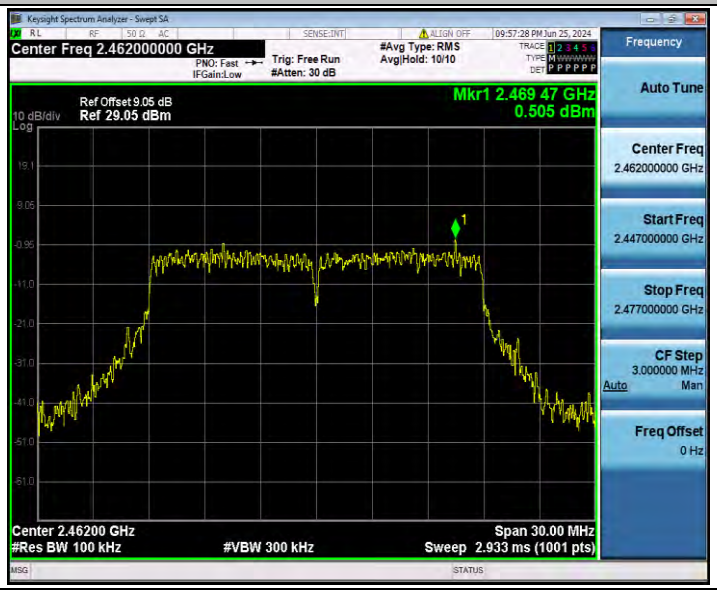

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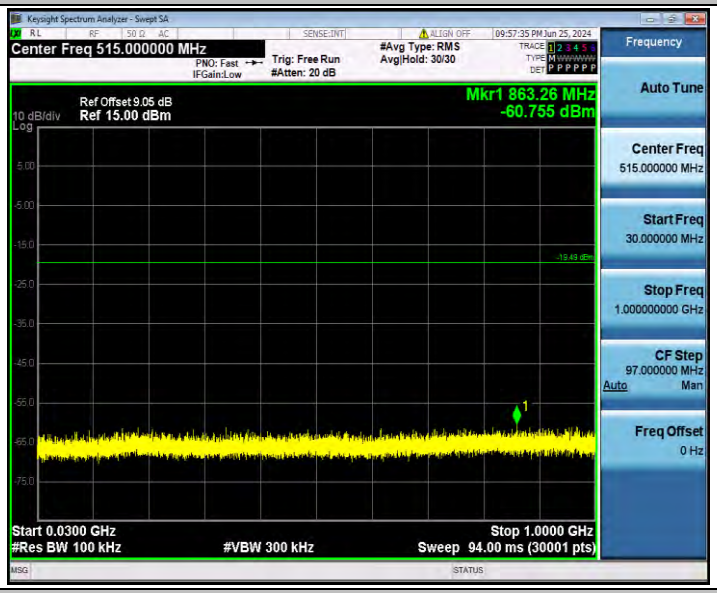
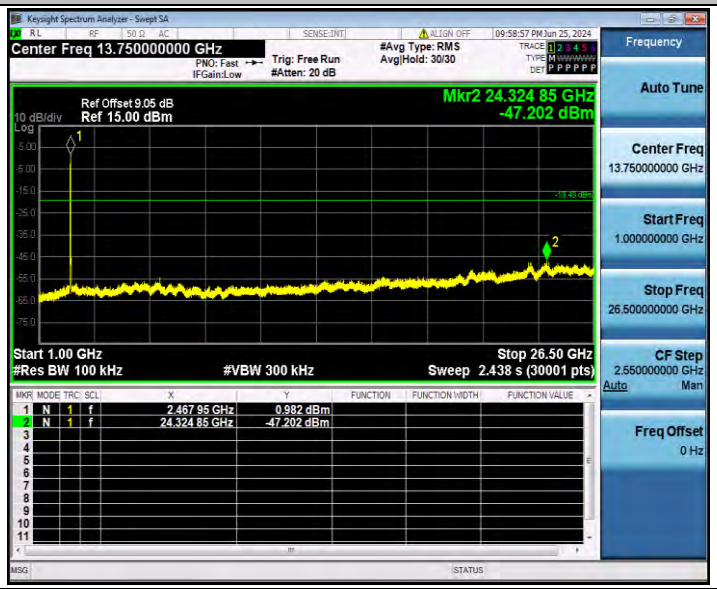
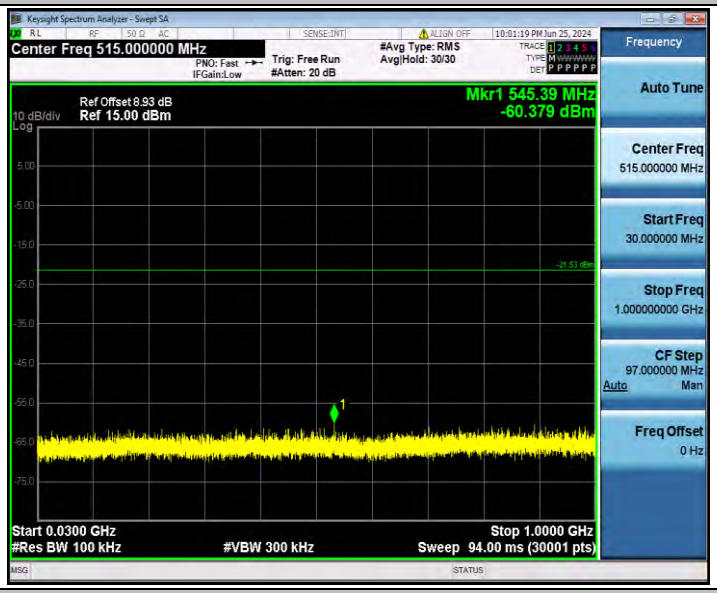

11N20SISO_Ant2_2462_1000~26500

11N40SISO_Ant2_2422_0~Reference

11N40SISO_Ant2_2422_30~1000



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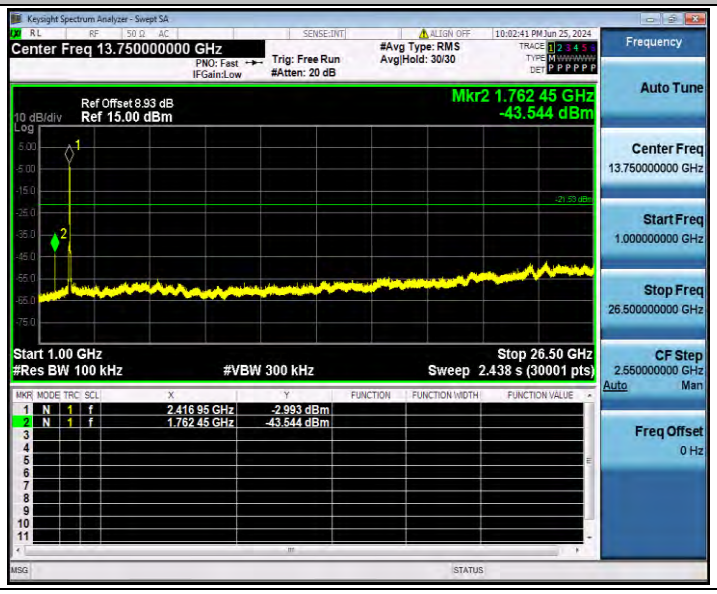

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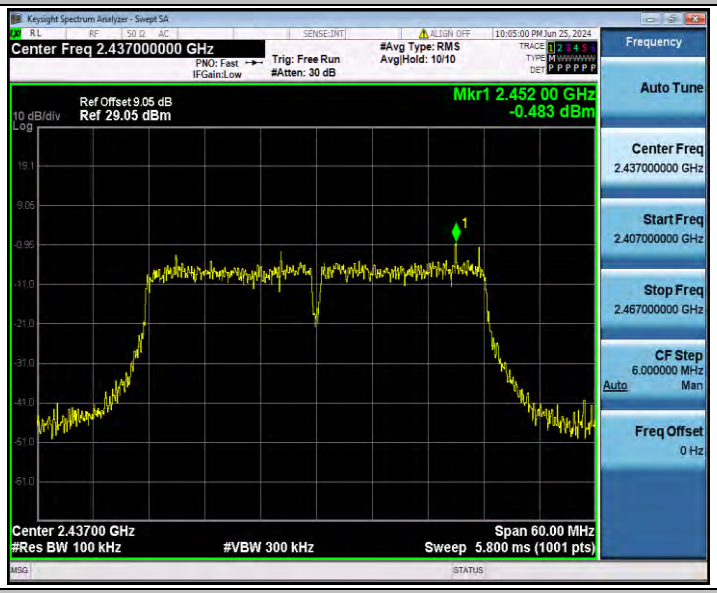

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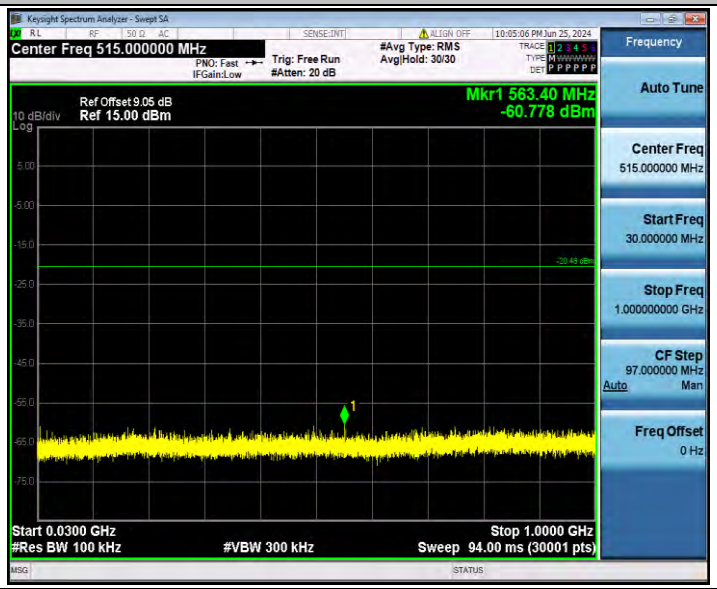

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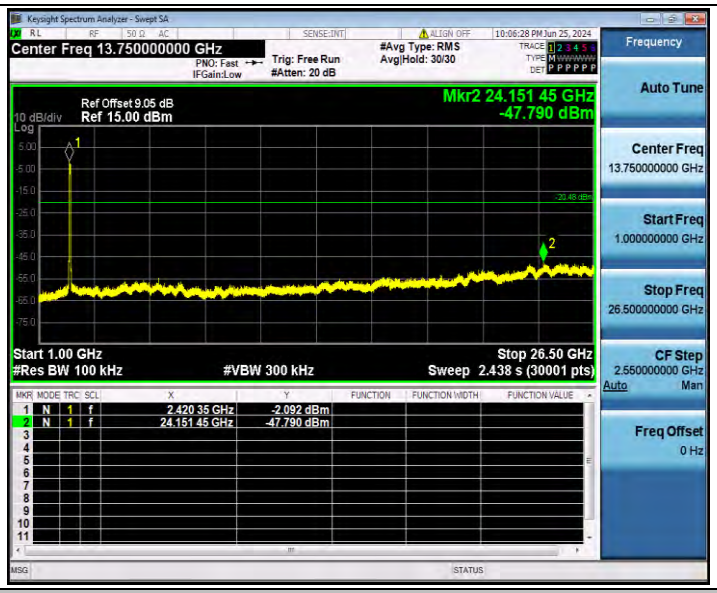

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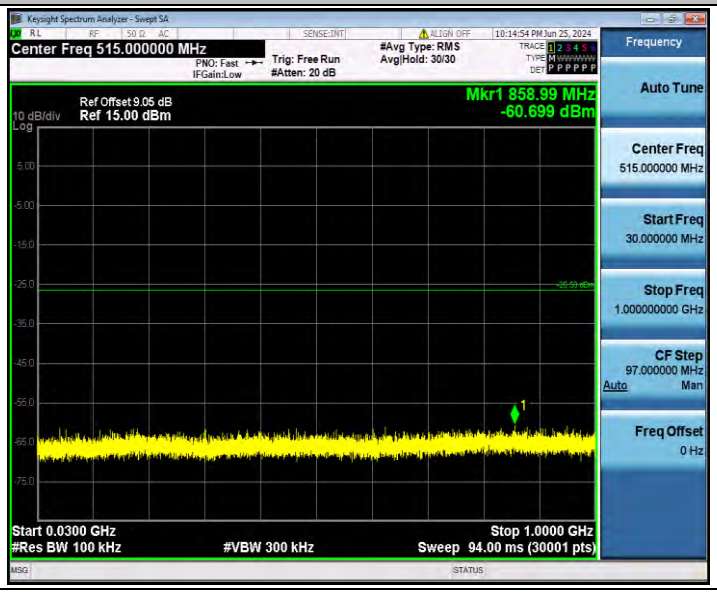

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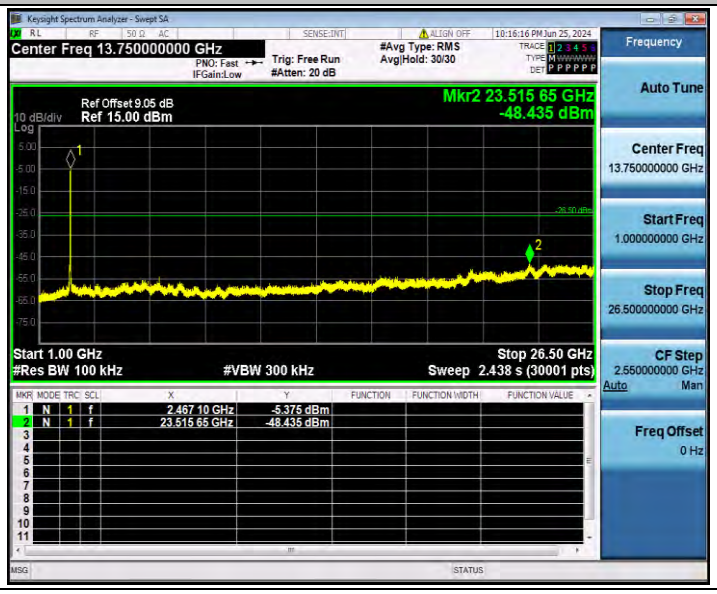


Appendix C.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant2	Low	2412	AV	2310.000	-49.38	≤-41.20	45.82	≤54	PASS
				AV	2386.190	-48.37	≤-41.20	46.83	≤54	PASS
				AV	2390.000	-48.4	≤-41.20	46.80	≤54	PASS
				Peak	2310.000	-46.57	≤-21.20	48.63	≤74	PASS
				Peak	2377.870	-39.6	≤-21.20	55.60	≤74	PASS
				Peak	2390.000	-46.49	≤-21.20	48.71	≤74	PASS
		High	2462	AV	2483.500	-48.17	≤-41.20	47.03	≤54	PASS
				AV	2487.850	-48.11	≤-41.20	47.09	≤54	PASS
				AV	2500.000	-48.52	≤-41.20	46.68	≤54	PASS
				Peak	2483.500	-46.66	≤-21.20	48.54	≤74	PASS
				Peak	2484.000	-39.82	≤-21.20	55.38	≤74	PASS
				Peak	2500.000	-43.82	≤-21.20	51.38	≤74	PASS
11G	Ant2	Low	2412	AV	2310.000	-49.4	≤-41.20	45.80	≤54	PASS
				AV	2389.960	-43.05	≤-41.20	52.15	≤54	PASS
				AV	2390.000	-43.05	≤-41.20	52.15	≤54	PASS
				Peak	2310.000	-45.08	≤-21.20	50.12	≤74	PASS
				Peak	2386.190	-37.06	≤-21.20	58.14	≤74	PASS
				Peak	2390.000	-41.8	≤-21.20	53.40	≤74	PASS
		High	2462	AV	2483.500	-44.42	≤-41.20	50.78	≤54	PASS
				AV	2483.560	-44.53	≤-41.20	50.67	≤54	PASS
				AV	2500.000	-48.57	≤-41.20	46.63	≤54	PASS
				Peak	2483.500	-45.57	≤-21.20	49.63	≤74	PASS
				Peak	2485.210	-36.9	≤-21.20	58.30	≤74	PASS
				Peak	2500.000	-44.3	≤-21.20	50.90	≤74	PASS
11N20SISO	Ant2	Low	2412	AV	2310.000	-49.44	≤-41.20	45.76	≤54	PASS
				AV	2389.960	-43.59	≤-41.20	51.61	≤54	PASS
				AV	2390.000	-43.59	≤-41.20	51.61	≤54	PASS
				Peak	2310.000	-49.03	≤-21.20	46.17	≤74	PASS
				Peak	2389.960	-37.24	≤-21.20	57.96	≤74	PASS
				Peak	2390.000	-37.24	≤-21.20	57.96	≤74	PASS
		High	2462	AV	2483.500	-43.79	≤-41.20	51.41	≤54	PASS
				AV	2483.560	-43.84	≤-41.20	51.36	≤54	PASS
				AV	2500.000	-48.53	≤-41.20	46.67	≤54	PASS
				Peak	2483.500	-37.33	≤-21.20	57.87	≤74	PASS
				Peak	2483.670	-34.89	≤-21.20	60.31	≤74	PASS

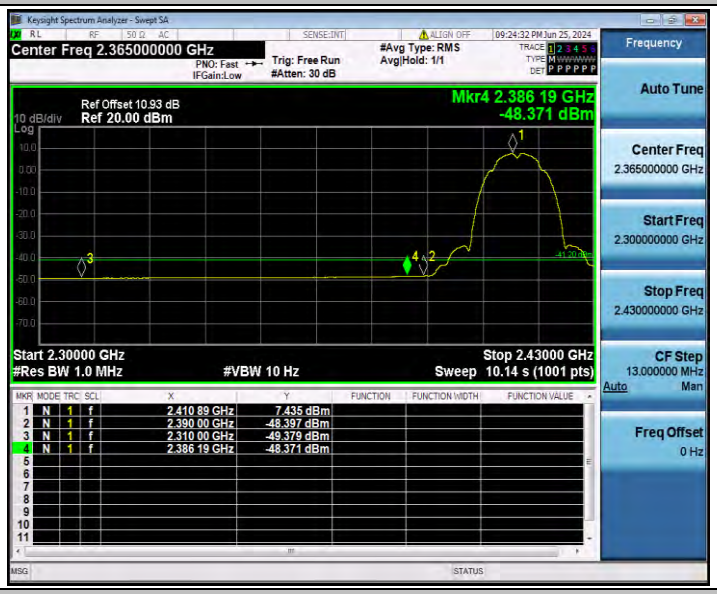
				Peak	2500.000	-43.55	≤-21.20	51.65	≤74	PASS
11N40SISO	Ant2	Low	2422	AV	2310.000	-49.41	≤-41.20	45.79	≤54	PASS
				AV	2389.700	-46.24	≤-41.20	48.96	≤54	PASS
				AV	2390.000	-46.27	≤-41.20	48.93	≤54	PASS
				Peak	2310.000	-43.05	≤-21.20	52.15	≤74	PASS
				Peak	2384.630	-36.92	≤-21.20	58.28	≤74	PASS
				Peak	2390.000	-42.78	≤-21.20	52.42	≤74	PASS
		High	2452	AV	2483.500	-48.19	≤-41.20	47.01	≤54	PASS
				AV	2483.890	-48.2	≤-41.20	47.00	≤54	PASS
				AV	2500.000	-48.54	≤-41.20	46.66	≤54	PASS
				Peak	2483.500	-47.22	≤-21.20	47.98	≤74	PASS
				Peak	2492.910	-40.4	≤-21.20	54.80	≤74	PASS
				Peak	2500.000	-45.4	≤-21.20	49.80	≤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_Ant2_Low_2412_AV



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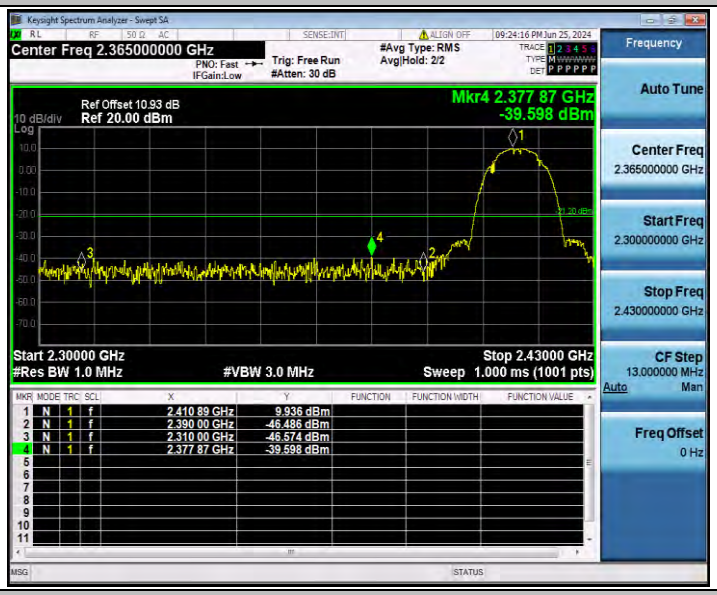
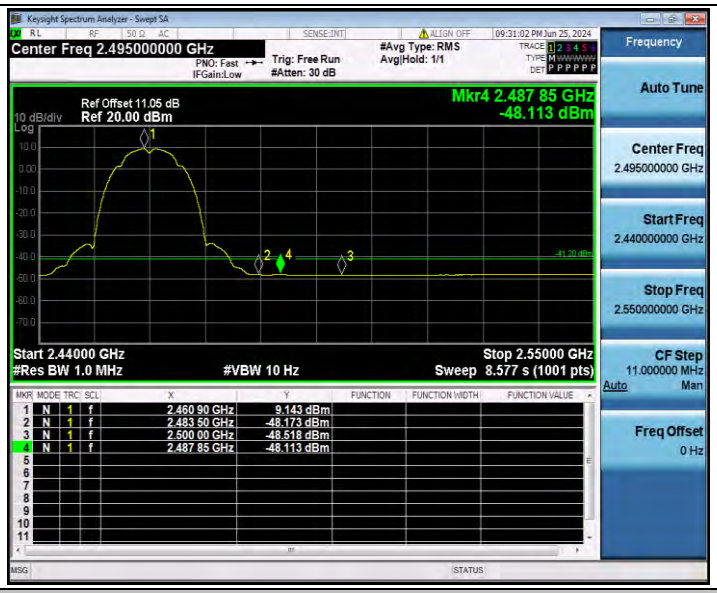
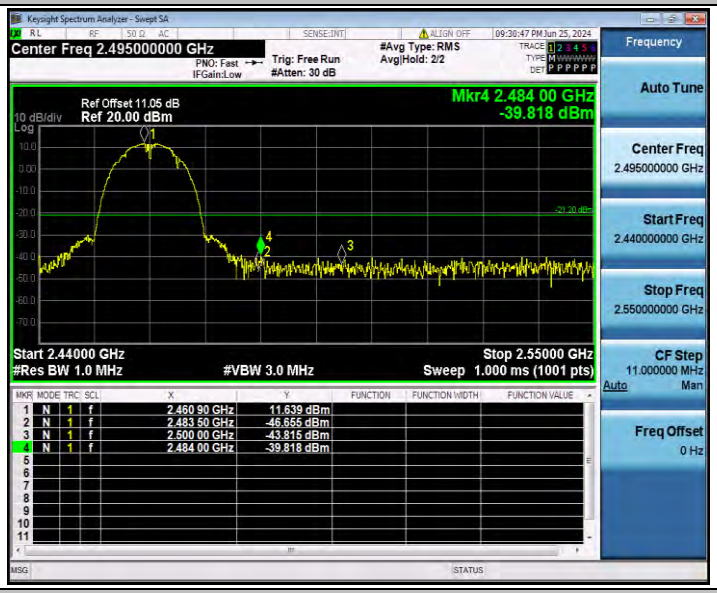


11B_Ant2_High_2462_AV



11B_Ant2_High_2462_Peak



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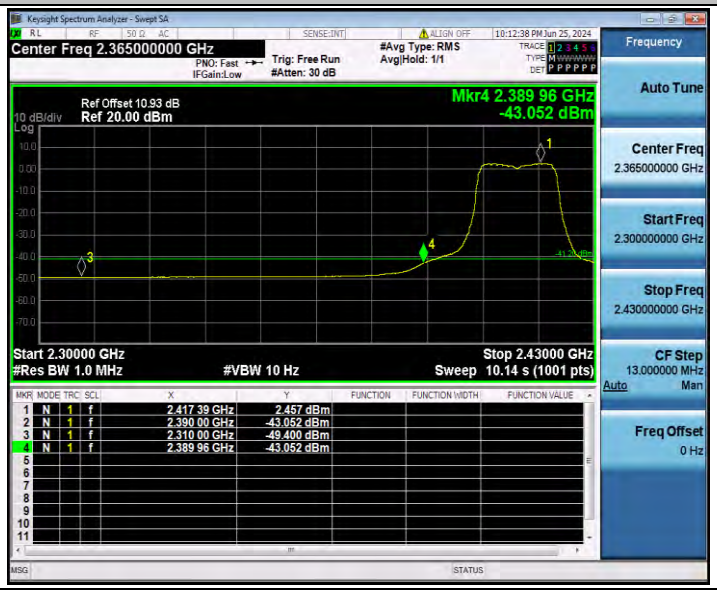

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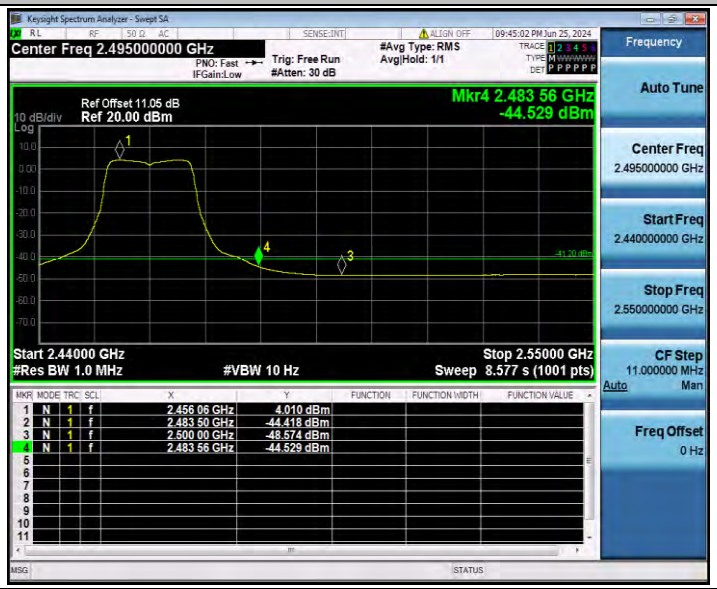
11G_Ant2_High_2462_AV



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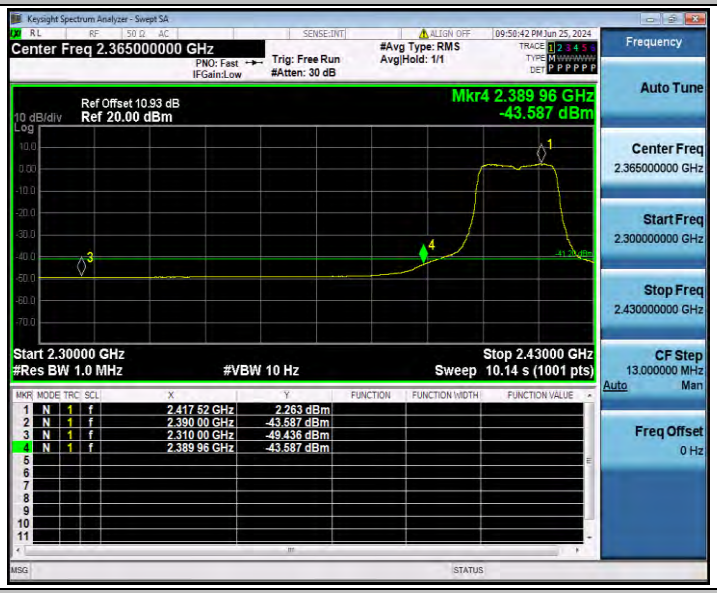

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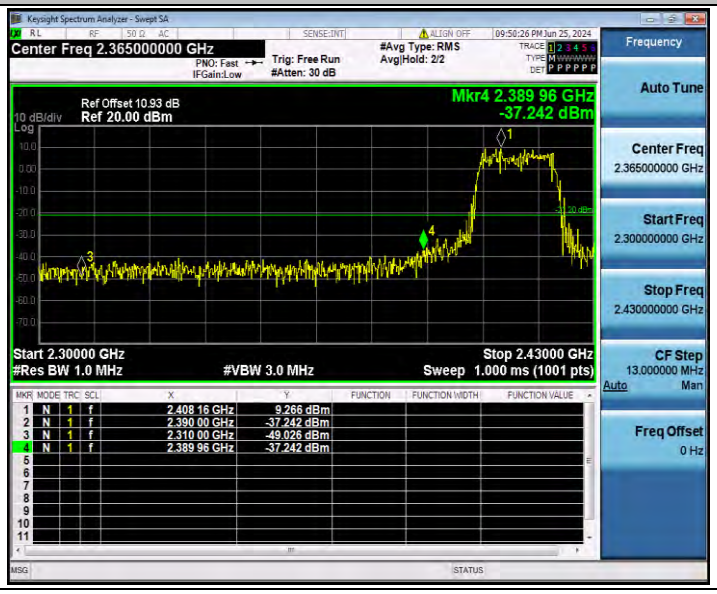

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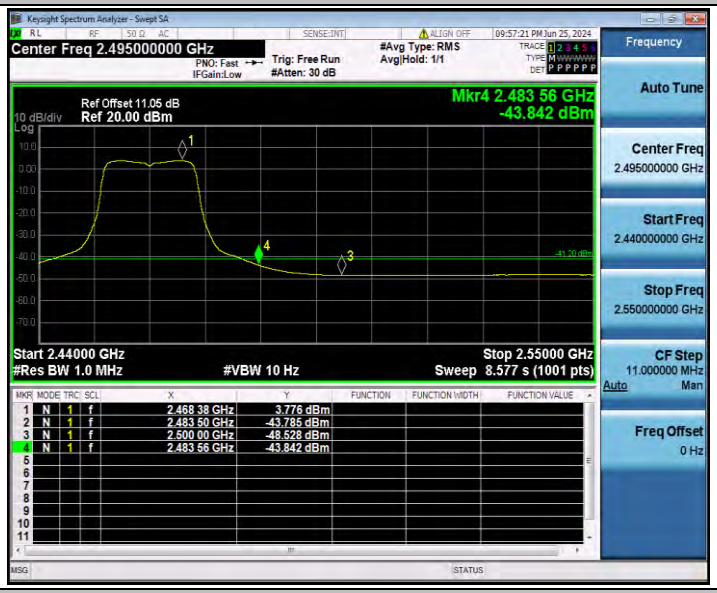
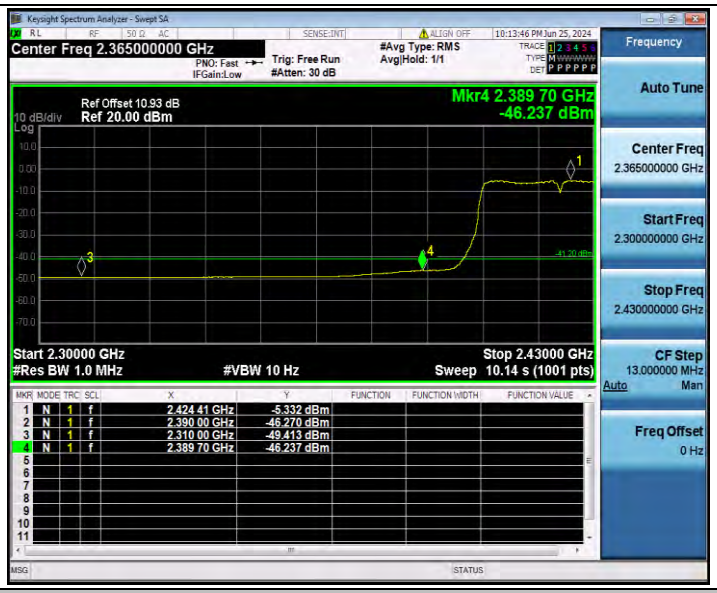


11N20SISO_Ant2_High_2462_Peak

11N40SISO_Ant2_Low_2422_AV



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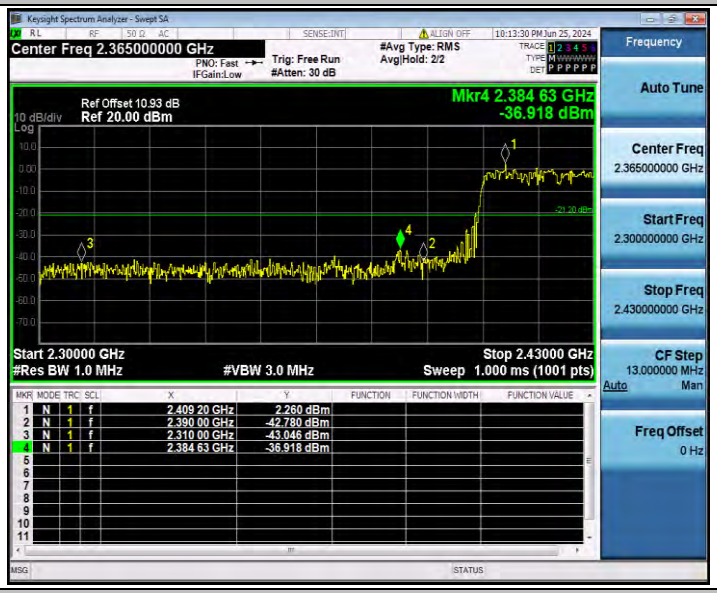

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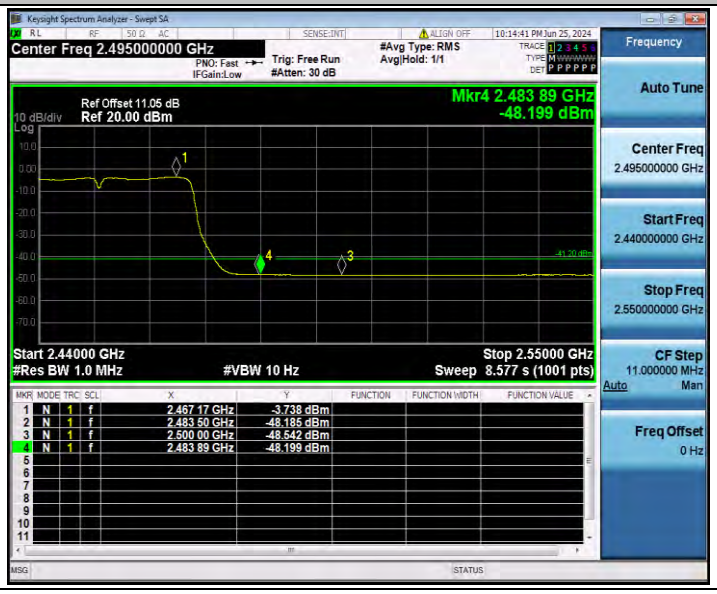
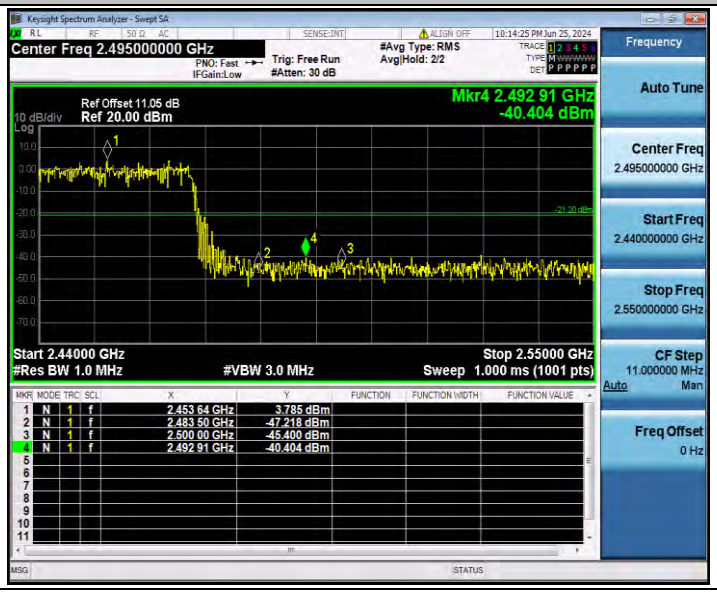
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