Case No. : CTA24061300703	
Ambient Condition: 24 ℃, 59 %RH,	
Test Date: 2024.6.20	**Test Engineer:** Evan ouyang

Appendix C.1: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.080	2407.960	2417.040	0.5	PASS
		2437	10.040	2431.960	2442.000	0.5	PASS
		2462	9.000	2457.480	2466.480	0.5	PASS
11G	Ant1	2412	16.320	2403.840	2420.160	0.5	PASS
		2437	16.080	2428.840	2444.920	0.5	PASS
		2462	13.960	2454.440	2468.400	0.5	PASS
11N20SISO	Ant1	2412	16.000	2404.440	2420.440	0.5	PASS
		2437	15.640	2429.200	2444.840	0.5	PASS
		2462	15.960	2454.200	2470.160	0.5	PASS
11N40SISO	Ant1	2422	35.040	2404.480	2439.520	0.5	PASS
		2437	35.120	2419.480	2454.600	0.5	PASS
		2452	35.120	2434.480	2469.600	0.5	PASS

Test Graphs

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

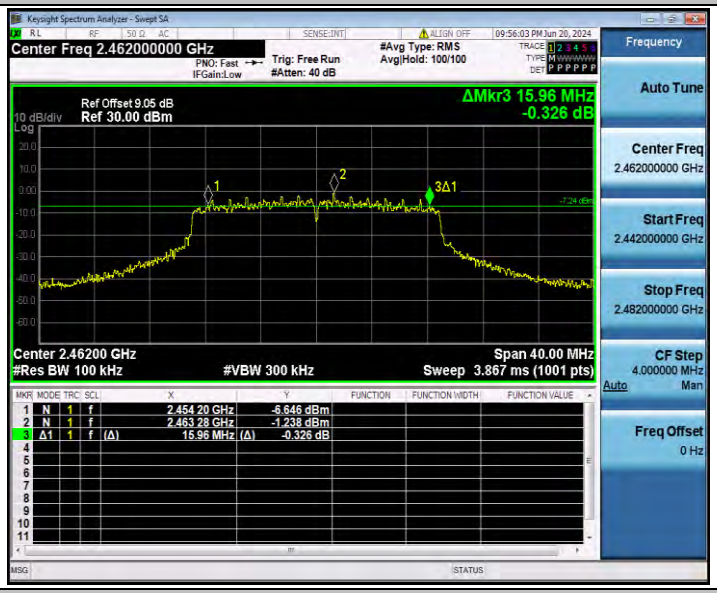
11G_Ant1_2437

11G_Ant1_2462

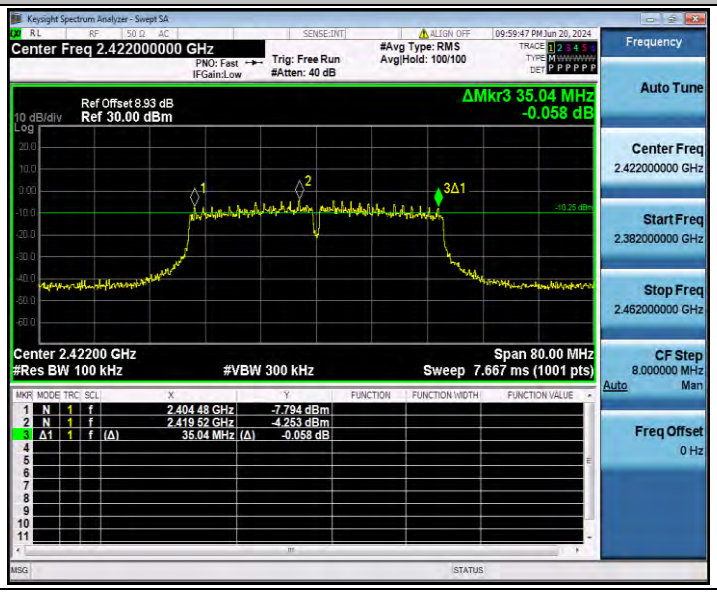
11N20SISO_Ant1_2412

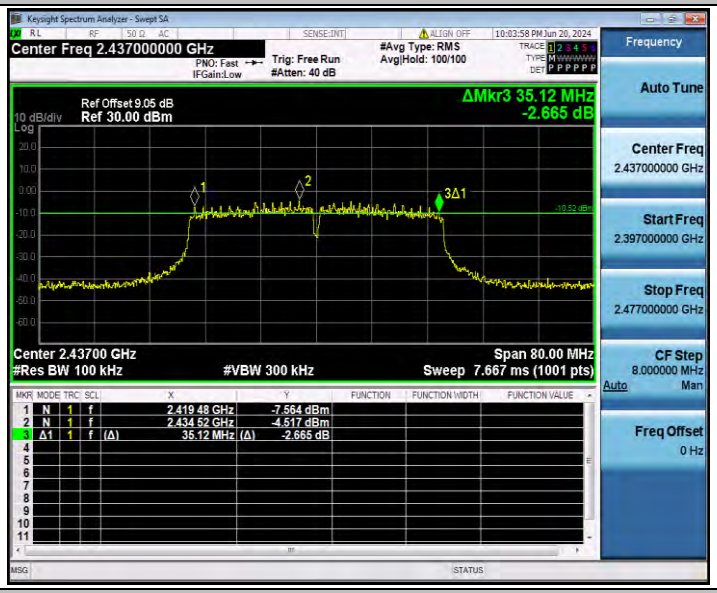
11N20SISO_Ant1_2437

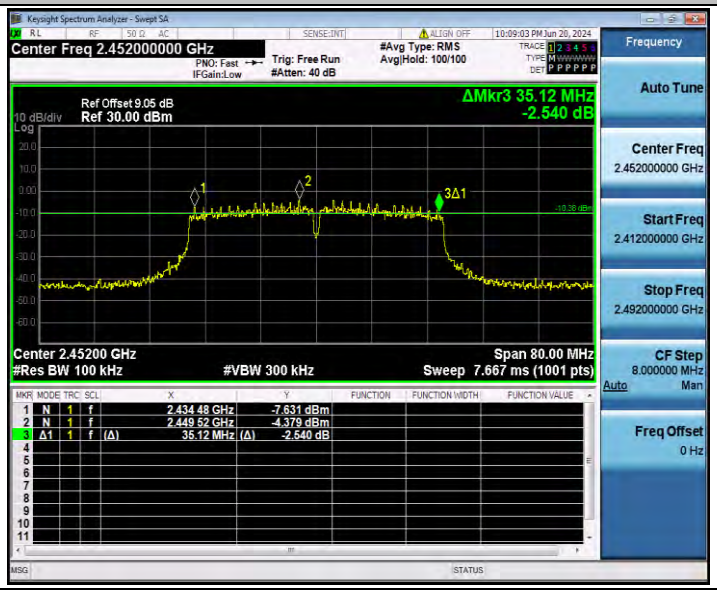
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


Appendix C.2: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]
11B	Ant1	2412	15.052	2404.5782	2419.6302
		2437	15.084	2429.5306	2444.6146
		2462	15.146	2454.4993	2469.6453
11G	Ant1	2412	17.465	2403.3212	2420.7862
		2437	17.614	2428.1769	2445.7909
		2462	17.392	2453.2567	2470.6487
11N20SISO	Ant1	2412	18.079	2402.9844	2421.0634
		2437	18.114	2427.9078	2446.0218
		2462	18.075	2452.9541	2471.0291
11N40SISO	Ant1	2422	36.449	2403.7849	2440.2339
		2437	36.463	2418.7008	2455.1638
		2452	36.517	2433.6735	2470.1905

Test Graphs

11B_Ant1_2412

11B_Ant1_2437

11B_Ant1_2462

11G_Ant1_2412

11G_Ant1_2437

11G_Ant1_2462

11N20SISO_Ant1_2412

11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

11N40SISO_Ant1_2422

11N40SISO_Ant1_2437

11N40SISO_Ant1_2452

Appendix C.3: Maximum conducted output power

Test Mode	Antenna	Frequency[MHz]	Peak power [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	14.43	≤30.00	PASS
		2437	14.87	≤30.00	PASS
		2462	15.46	≤30.00	PASS
11G	Ant1	2412	20.33	≤30.00	PASS
		2437	20.67	≤30.00	PASS
		2462	20.62	≤30.00	PASS
11N20SISO	Ant1	2412	16.02	≤30.00	PASS
		2437	15.96	≤30.00	PASS
		2462	16.08	≤30.00	PASS
11N40SISO	Ant1	2422	15.77	≤30.00	PASS
		2437	15.91	≤30.00	PASS
		2452	15.73	≤30.00	PASS

Appendix C.4: Maximum power spectral density

Test Result

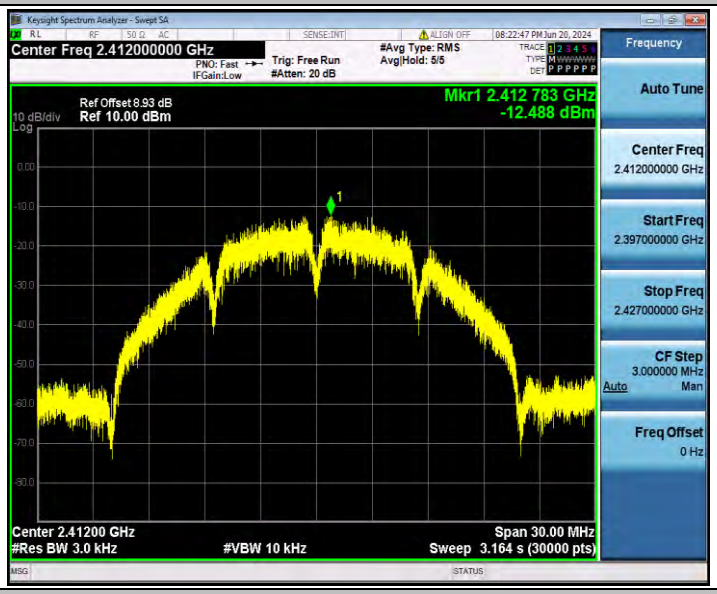
TestMode	Antenna	Frequency[MHz]	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-12.49	≤8.00	PASS
		2437	-11.55	≤8.00	PASS
		2462	-10.51	≤8.00	PASS
11G	Ant1	2412	-12.03	≤8.00	PASS
		2437	-11.51	≤8.00	PASS
		2462	-11.16	≤8.00	PASS
11N20SISO	Ant1	2412	-16.41	≤8.00	PASS
		2437	-16.23	≤8.00	PASS
		2462	-16.21	≤8.00	PASS
11N40SISO	Ant1	2422	-19.03	≤8.00	PASS
		2437	-20.39	≤8.00	PASS
		2452	-20.07	≤8.00	PASS

Note：

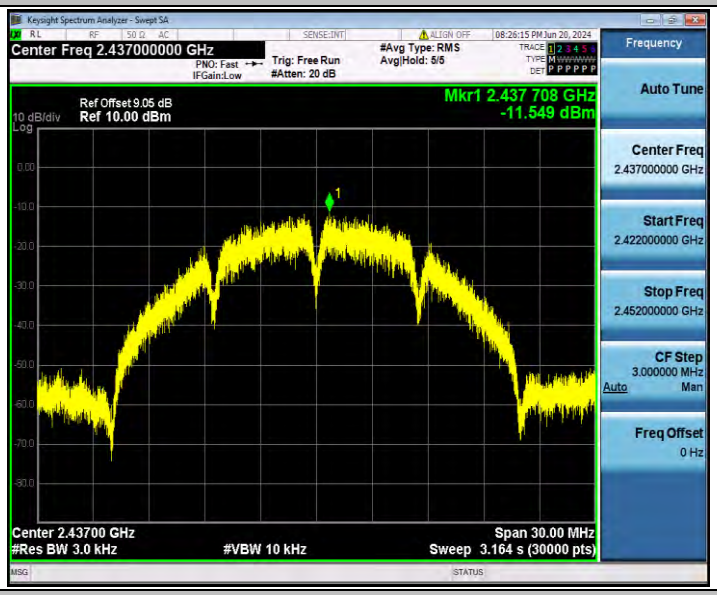
1. The Duty Cycle Factor and RBW Factor is compensated in the graph.

Test Graphs

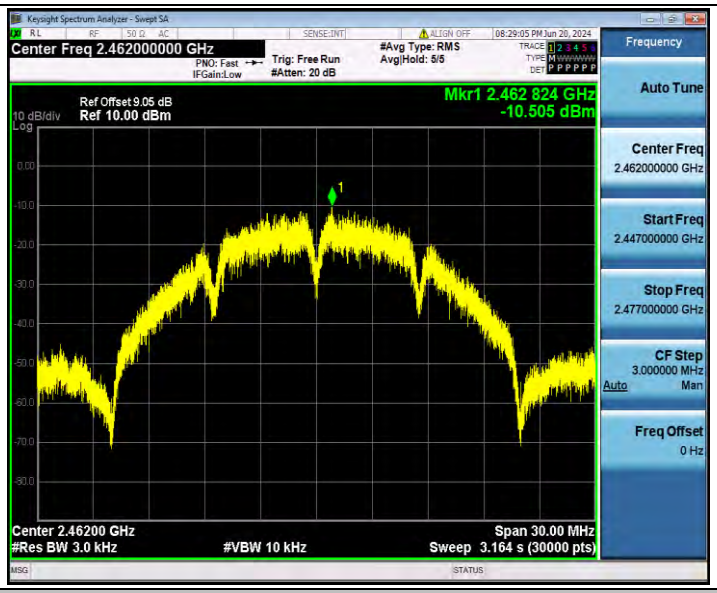
11B_Ant1_2412



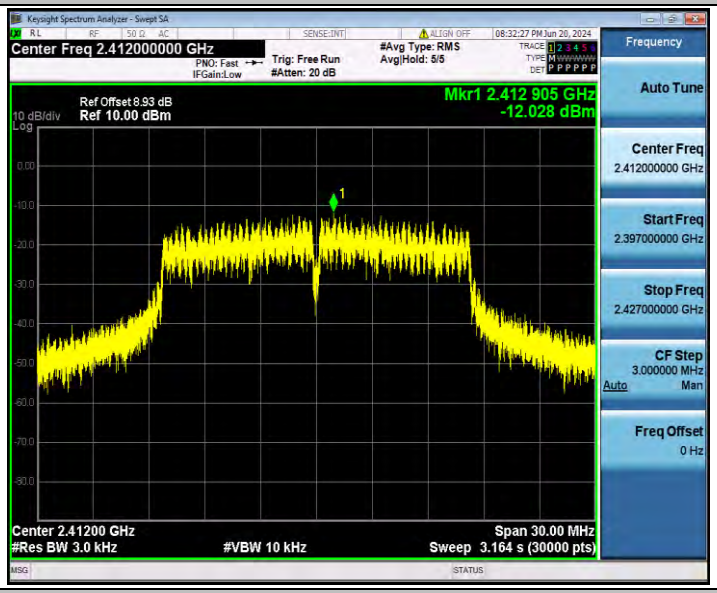
11B_Ant1_2437



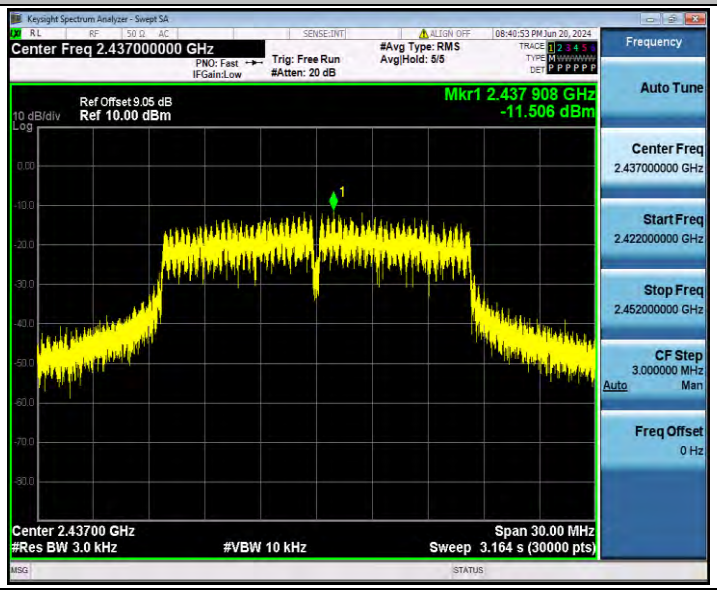
11B_Ant1_2462



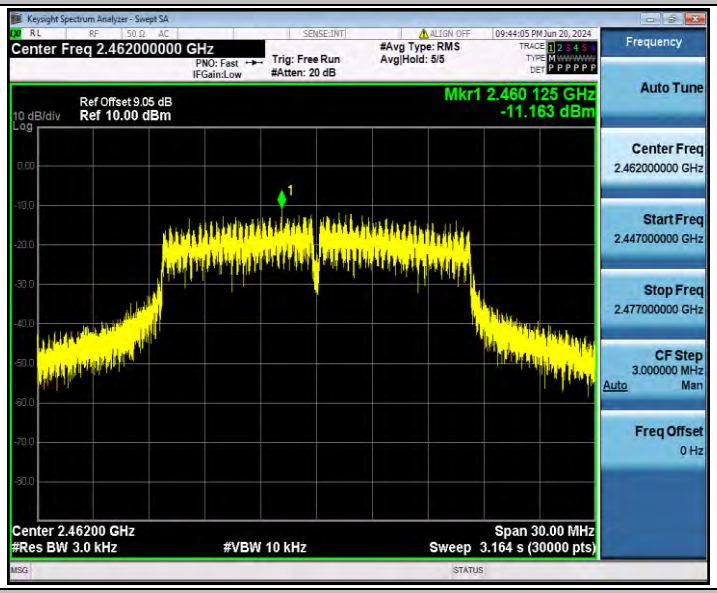
11G_Ant1_2412



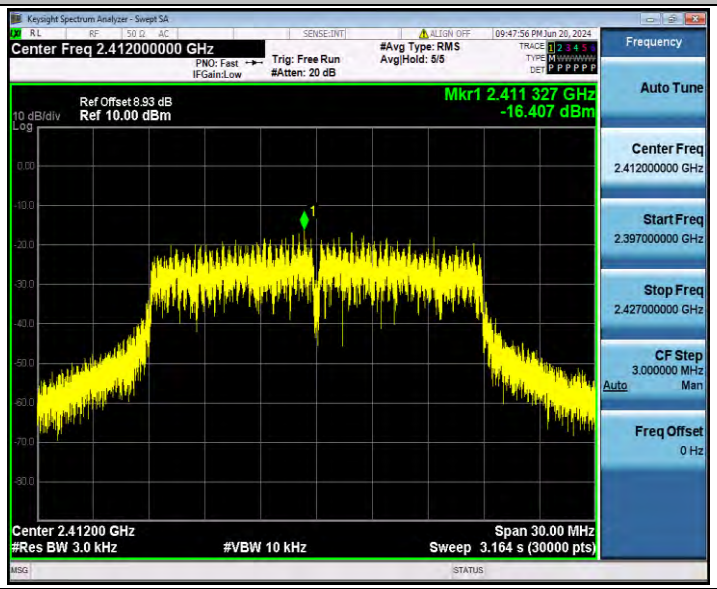
11G_Ant1_2437



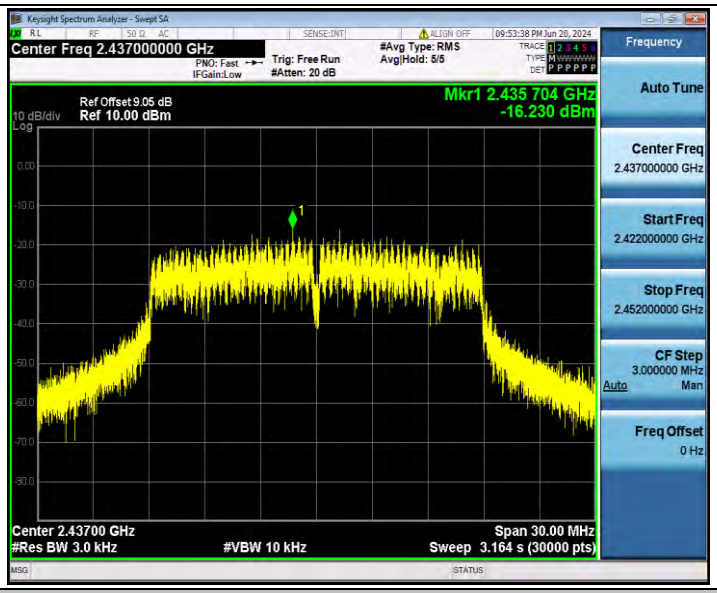
11G_Ant1_2462



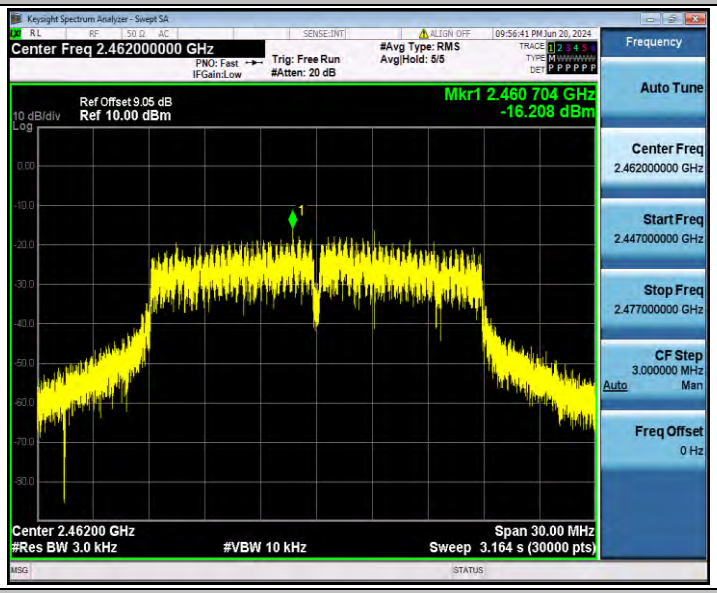
11N20SISO_Ant1_2412



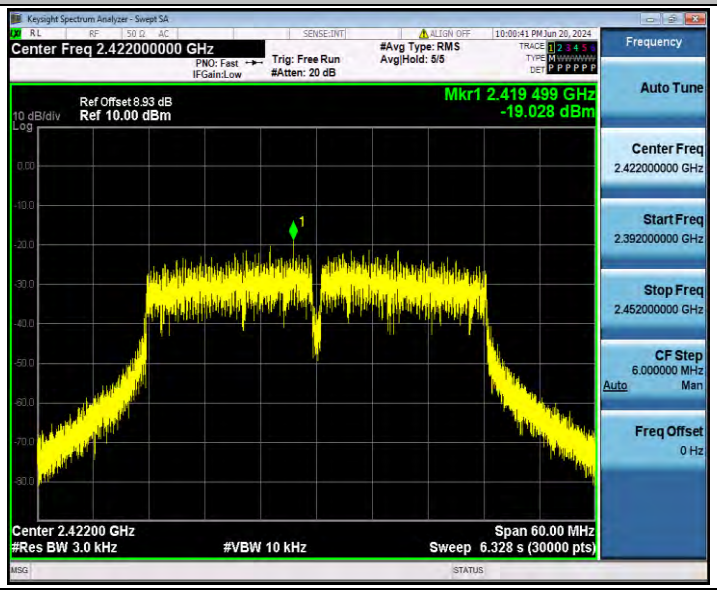
11N20SISO_Ant1_2437

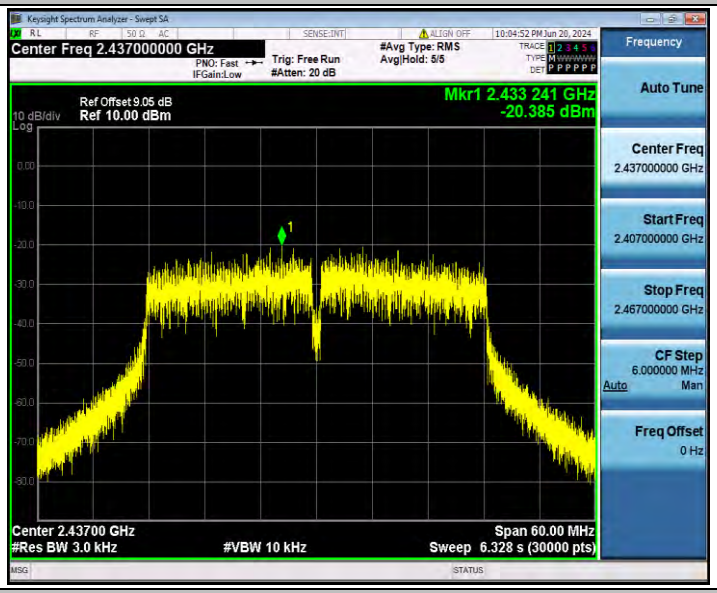


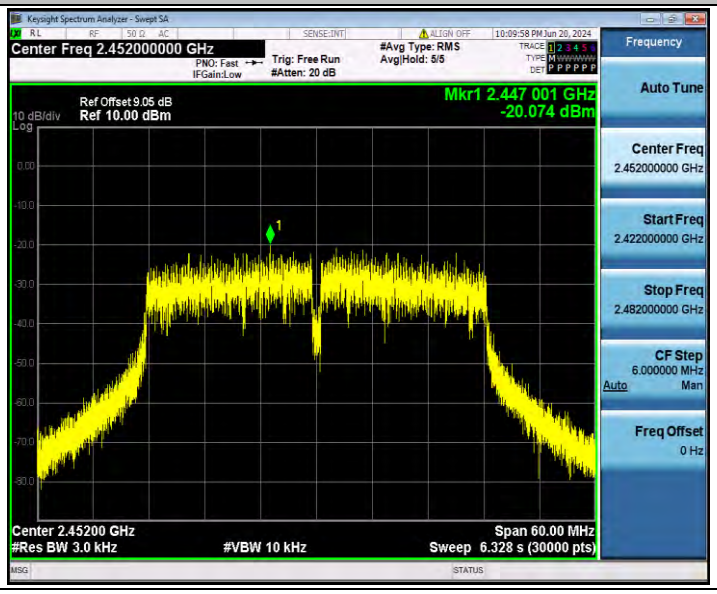
11N20SISO_Ant1_2462



11N40SISO_Ant1_2422



11N40SISO_Ant1_2437


11N40SISO_Ant1_2452


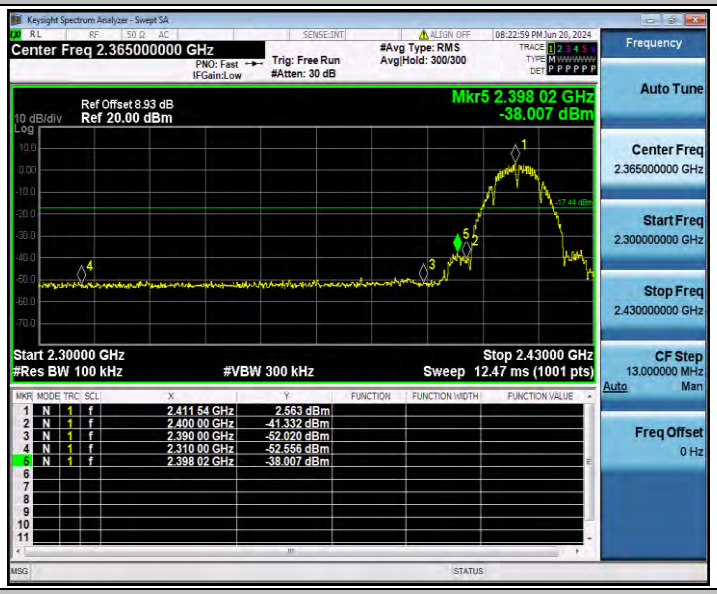
Appendix C.5: Band edge measurements

Test Result

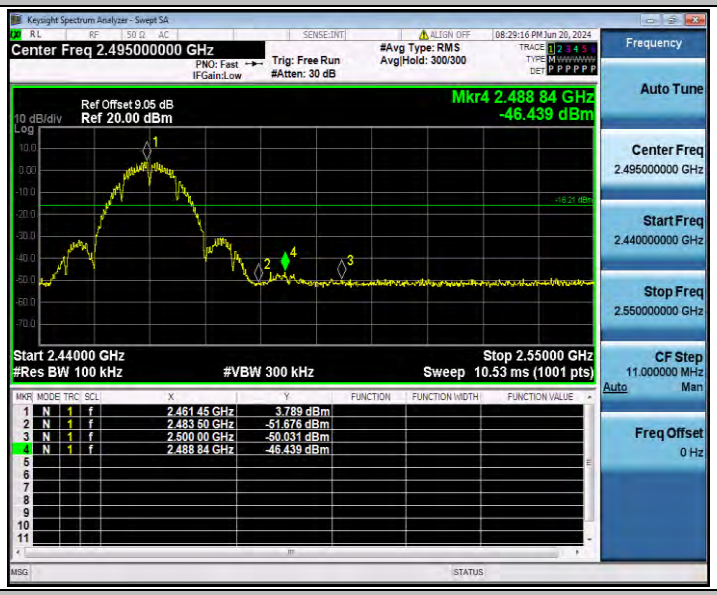
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	2.56	-38.01	≤-17.44	PASS
		High	2462	3.79	-46.44	≤-16.21	PASS
11G	Ant1	Low	2412	3.09	-24.45	≤-16.91	PASS
		High	2462	2.93	-35.15	≤-17.07	PASS
11N20SISO	Ant1	Low	2412	-1.28	-32.19	≤-21.28	PASS
		High	2462	-1.20	-46.37	≤-21.2	PASS
11N40SISO	Ant1	Low	2422	-4.32	-36.89	≤-24.32	PASS
		High	2452	-4.39	-45.98	≤-24.39	PASS

Test Graphs

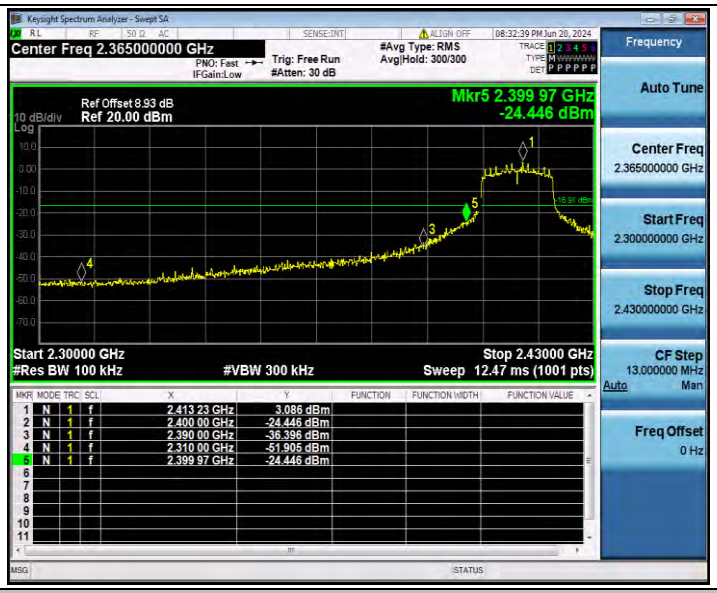
11B_Ant1_Low_2412



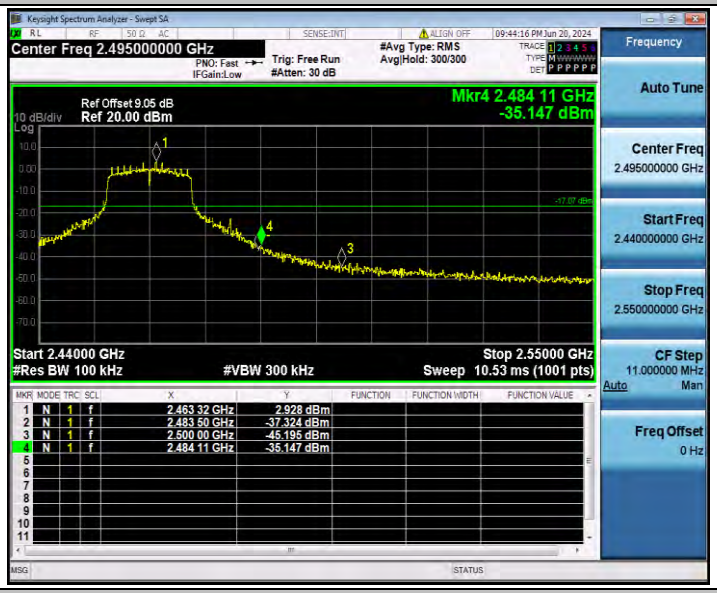
11B_Ant1_High_2462



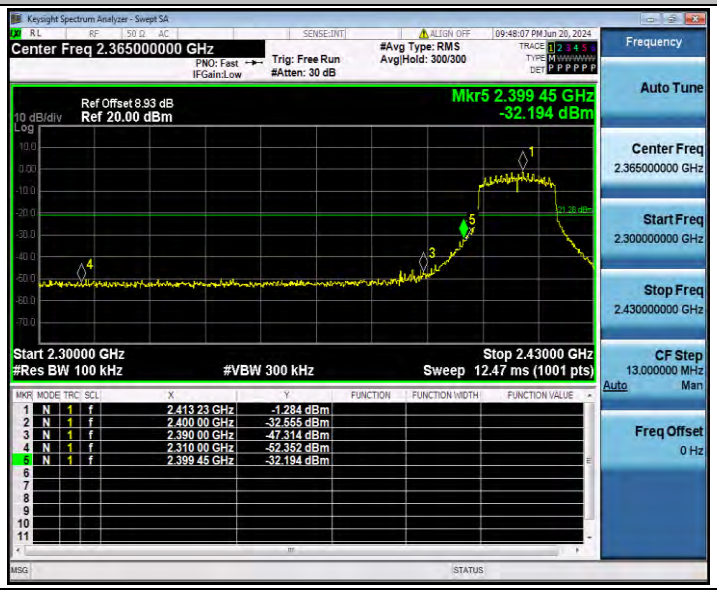
11G_Ant1_Low_2412



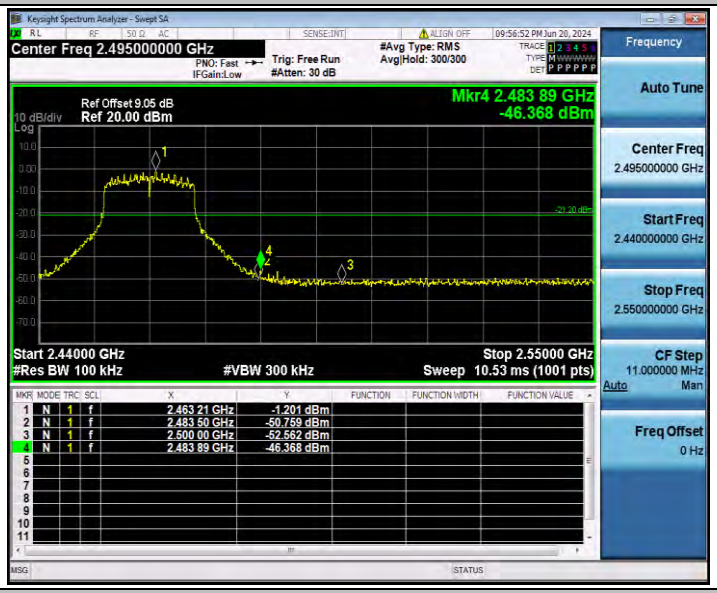
11G_Ant1_High_2462



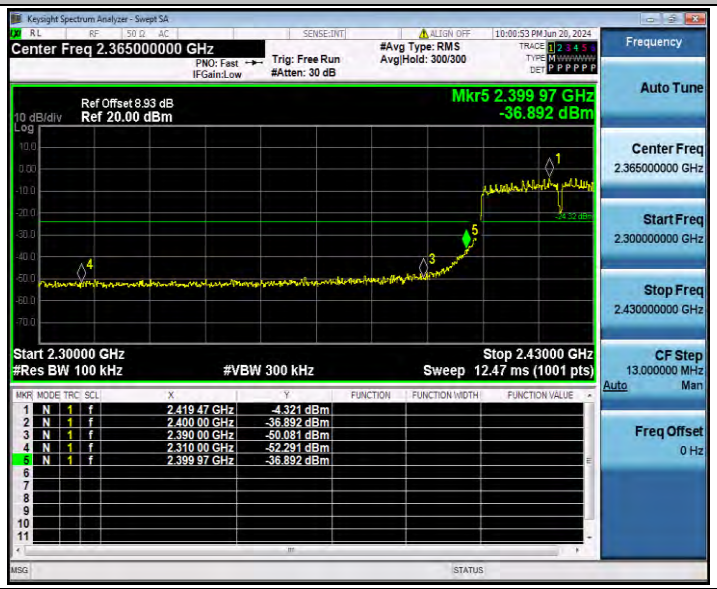
11N20SISO_Ant1_Low_2412



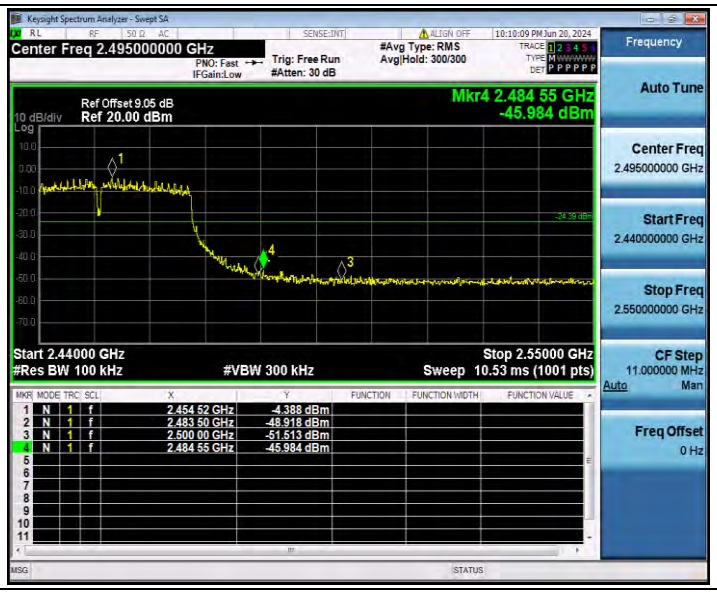
11N20SISO_Ant1_High_2462



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
10:10:09 PM Jun 20, 2024
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
Ref Offset 9.05 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.484 55 GHz
-45.984 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 -4.388 dBm
2 N 1 f 2.483 50 GHz -48.918 dBm
3 N 1 f 2.500 00 GHz -51.513 dBm
4 N 1 f 2.484 55 GHz -45.984 dBm

Appendix C.6: Conducted Spurious Emission

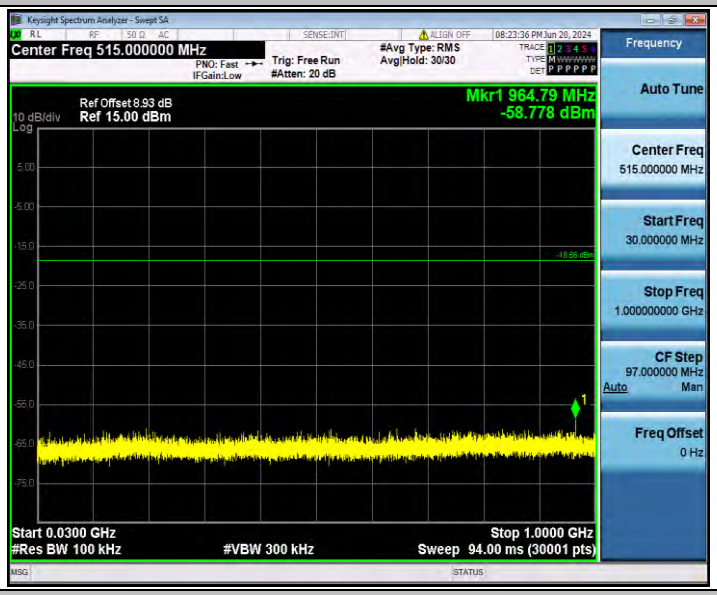
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	1.34	1.34	---	PASS
			30~1000	1.34	-58.78	≤-18.66	PASS
			1000~26500	1.34	-48.09	≤-18.66	PASS
		2437	Reference	2.65	2.65	---	PASS
			30~1000	2.65	-59.62	≤-17.35	PASS
			1000~26500	2.65	-48.08	≤-17.35	PASS
		2462	Reference	1.50	1.50	---	PASS
			30~1000	1.50	-59.2	≤-18.5	PASS
			1000~26500	1.50	-47.87	≤-18.5	PASS
11G	Ant1	2412	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-61.29	≤-20.78	PASS
			1000~26500	-0.78	-47.67	≤-20.78	PASS
		2437	Reference	1.22	1.22	---	PASS
			30~1000	1.22	-60.79	≤-18.78	PASS
			1000~26500	1.22	-47.6	≤-18.78	PASS
		2462	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-51.95	≤-16.73	PASS
			1000~26500	3.27	-47.68	≤-16.73	PASS
11N20SISO	Ant1	2412	Reference	-2.57	-2.57	---	PASS
			30~1000	-2.57	-60.64	≤-22.57	PASS
			1000~26500	-2.57	-48.26	≤-22.57	PASS
		2437	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-59.48	≤-23.95	PASS
			1000~26500	-3.95	-47.26	≤-23.95	PASS
		2462	Reference	-2.65	-2.65	---	PASS
			30~1000	-2.65	-60.42	≤-22.65	PASS
			1000~26500	-2.65	-47.52	≤-22.65	PASS
11N40SISO	Ant1	2422	Reference	-4.76	-4.76	---	PASS
			30~1000	-4.76	-60.48	≤-24.76	PASS
			1000~26500	-4.76	-47.97	≤-24.76	PASS
		2437	Reference	-4.99	-4.99	---	PASS
			30~1000	-4.99	-60.31	≤-24.99	PASS
			1000~26500	-4.99	-47.66	≤-24.99	PASS
		2452	Reference	-6.17	-6.17	---	PASS
			30~1000	-6.17	-60.22	≤-26.17	PASS
			1000~26500	-6.17	-47.49	≤-26.17	PASS

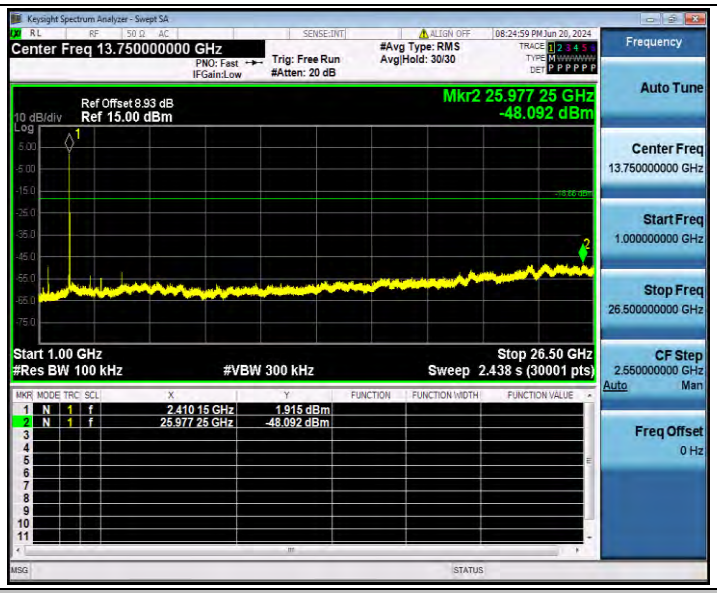
Test Graphs

11B_Ant1_2412_0~Reference

11B_Ant1_2412_30~1000

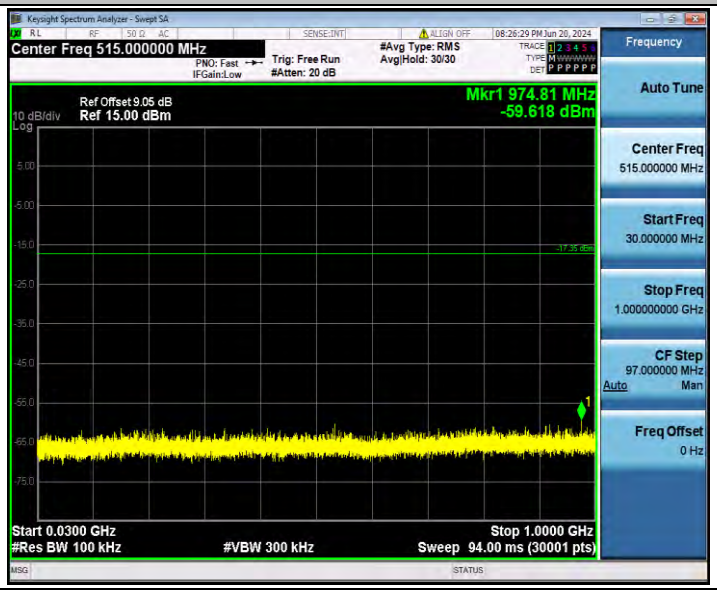


11B_Ant1_2412_1000~26500

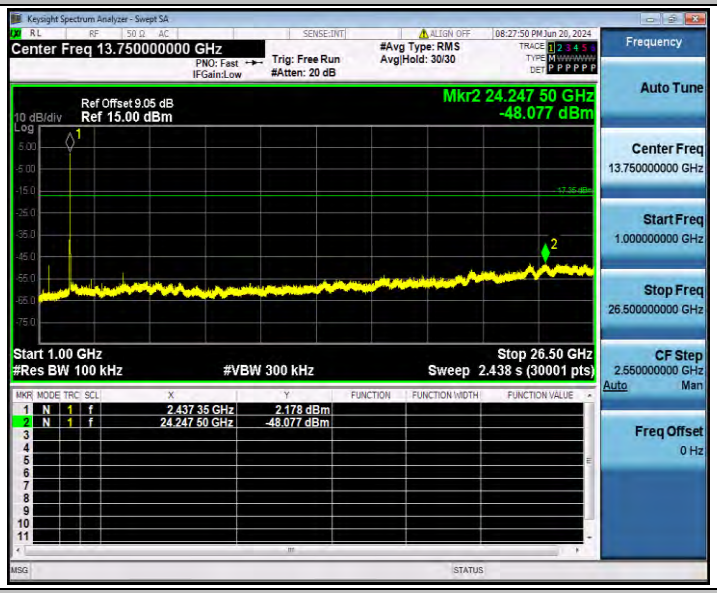


11B_Ant1_2437_0~Reference

11B_Ant1_2437_30~1000

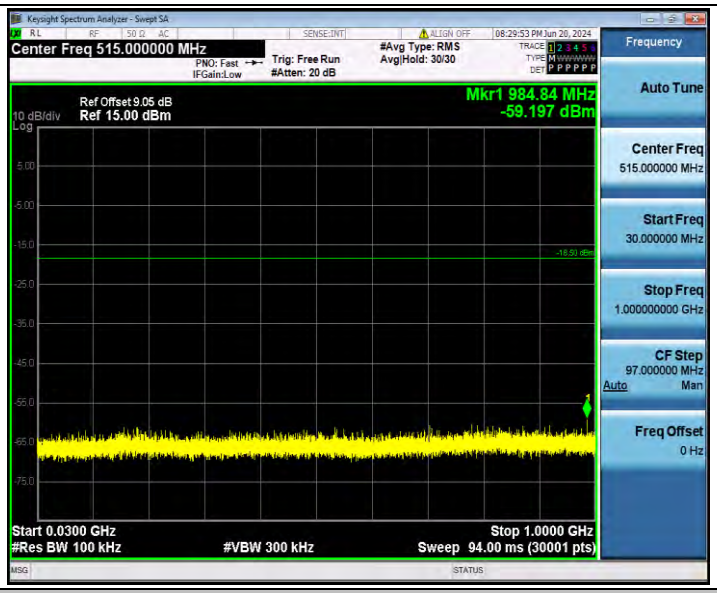


11B_Ant1_2437_1000~26500

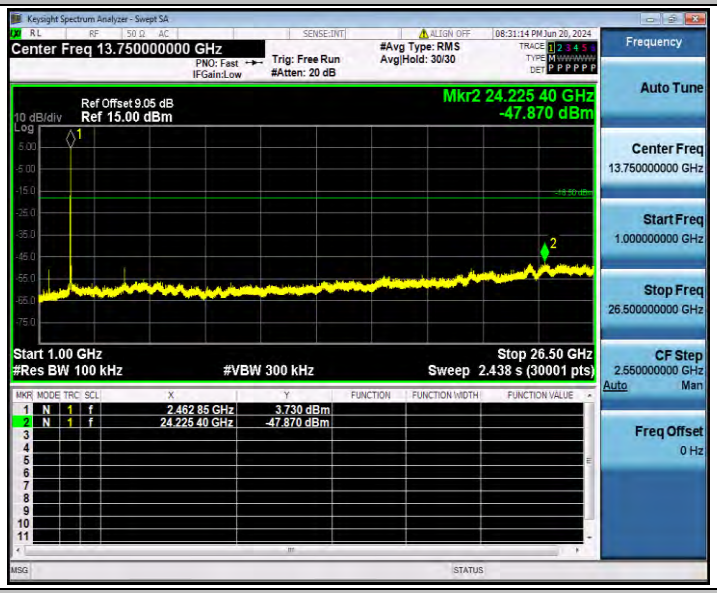


11B_Ant1_2462_0~Reference

11B_Ant1_2462_30~1000

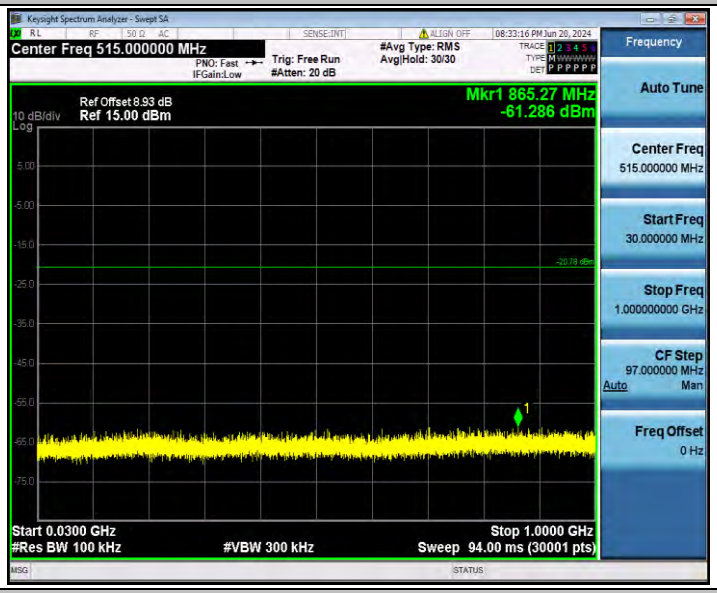


11B_Ant1_2462_1000~26500

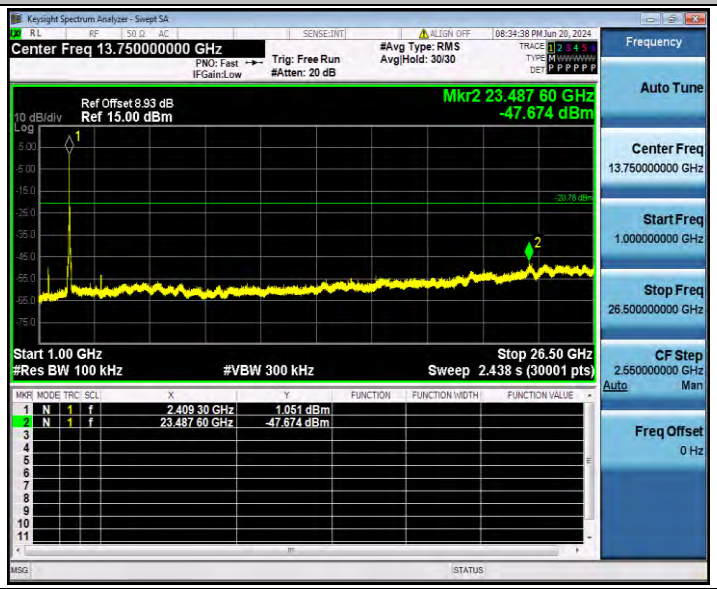


11G_Ant1_2412_0~Reference

11G_Ant1_2412_30~1000

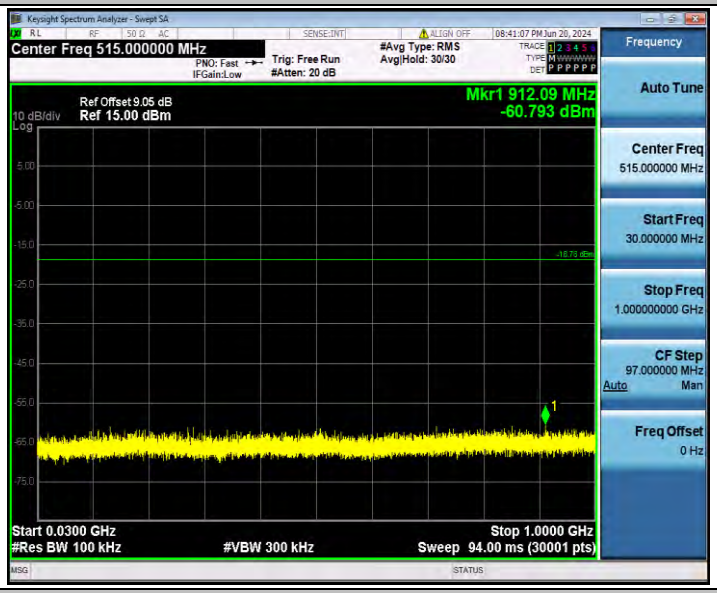


11G_Ant1_2412_1000~26500



11G_Ant1_2437_0~Reference

11G_Ant1_2437_30~1000



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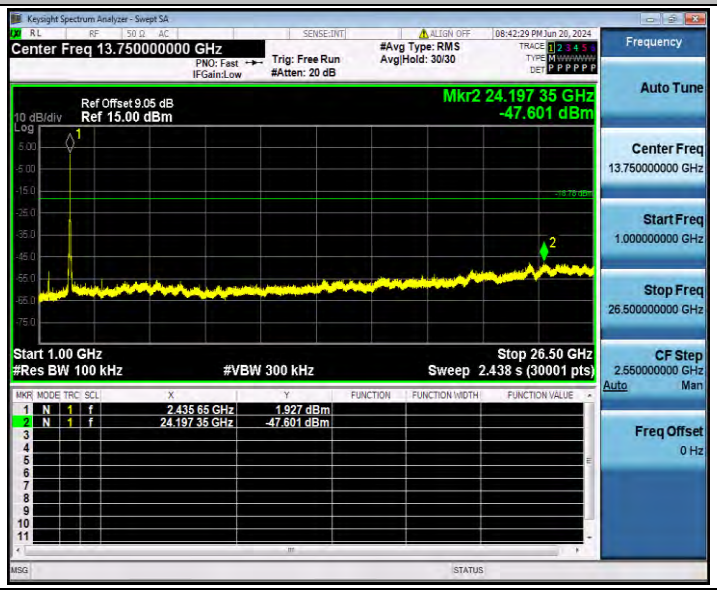

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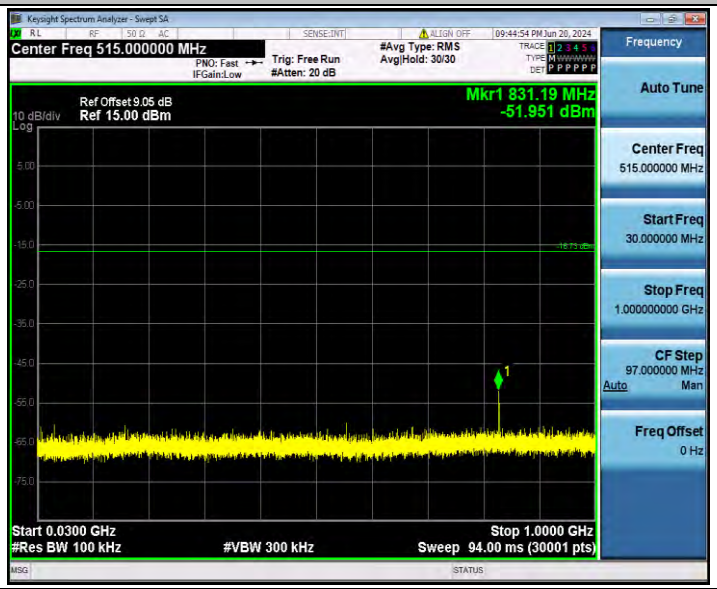

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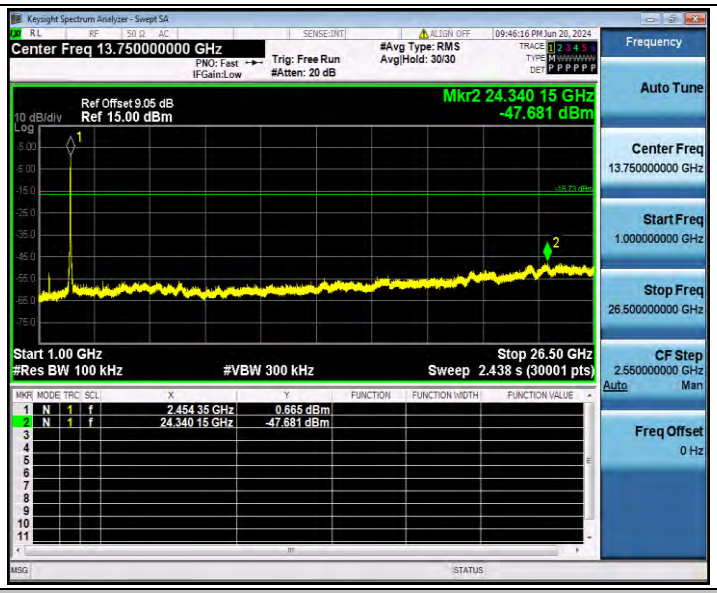

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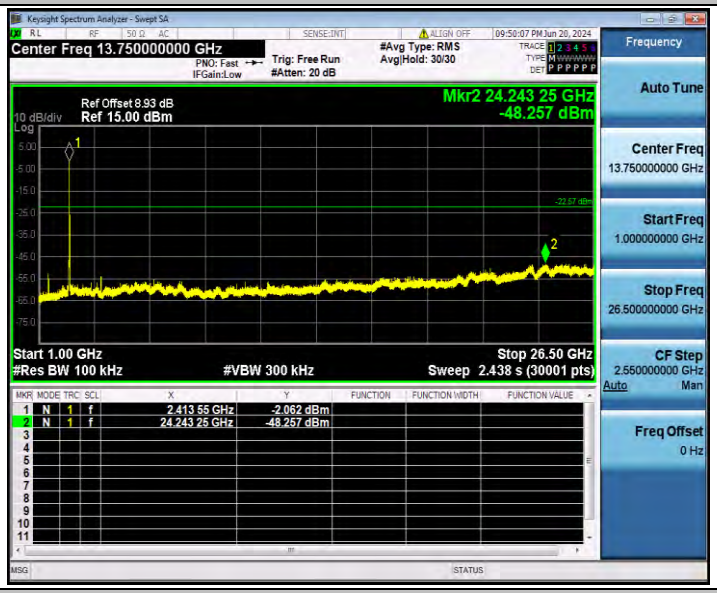

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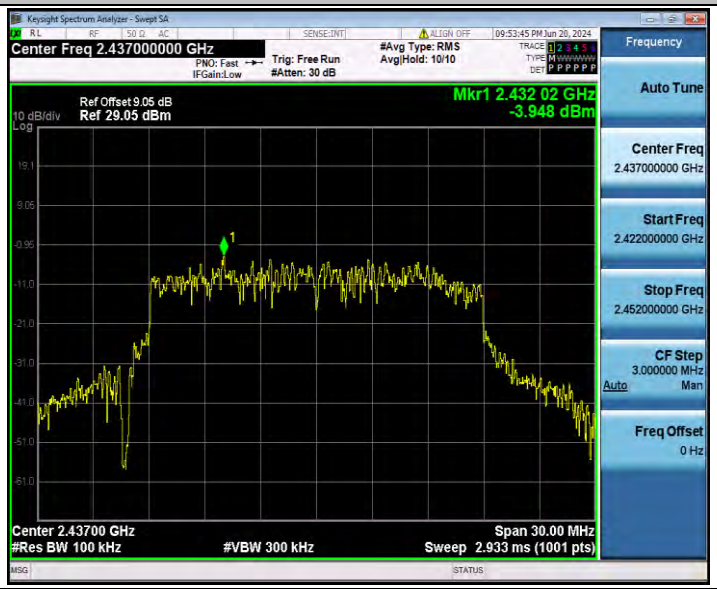

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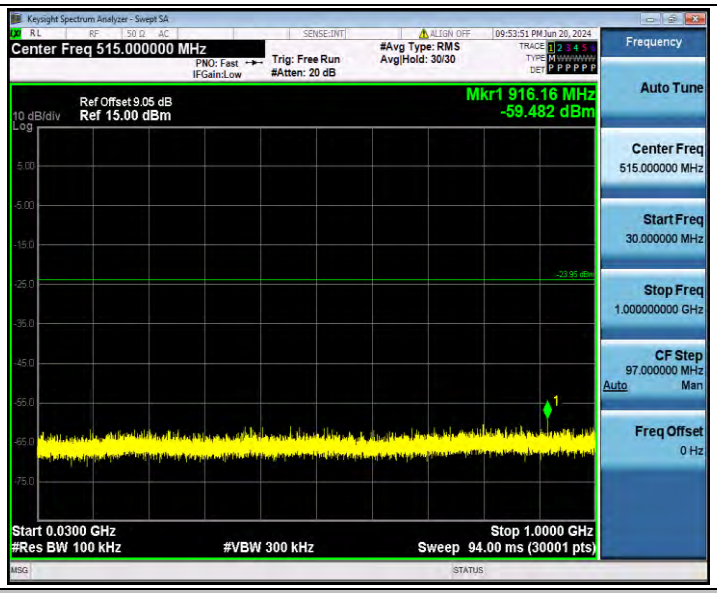

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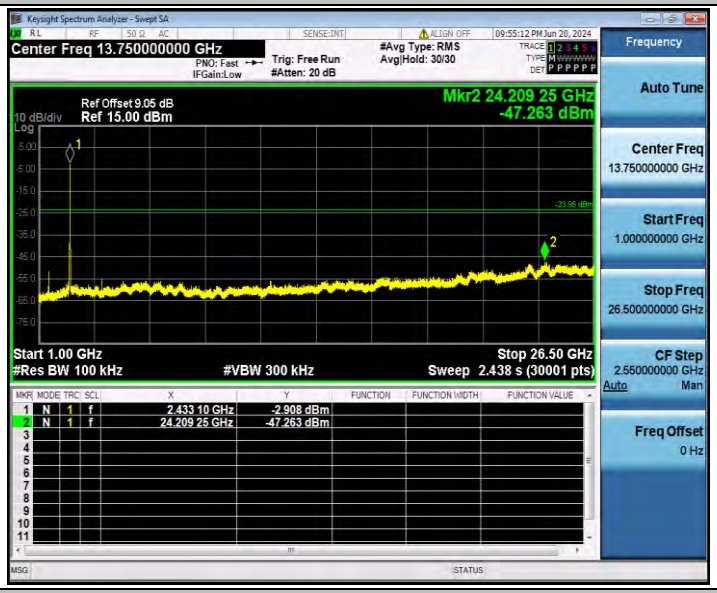

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11N20SISO_Ant1_2462_30~1000

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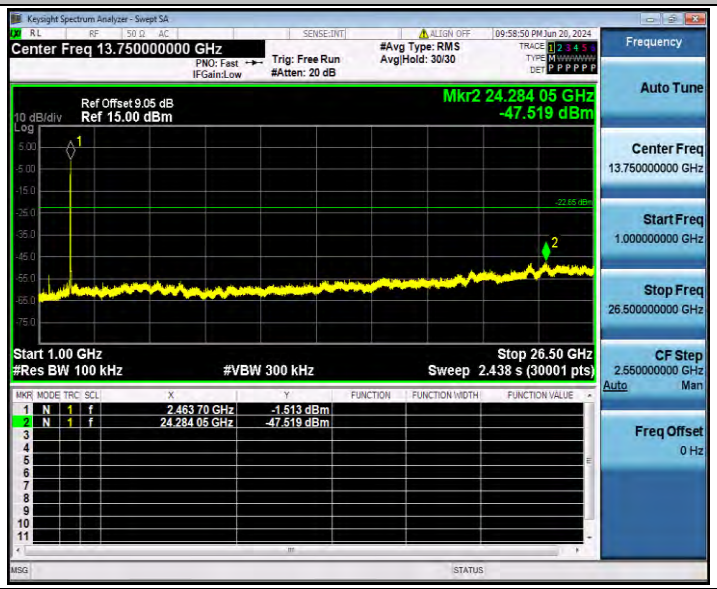

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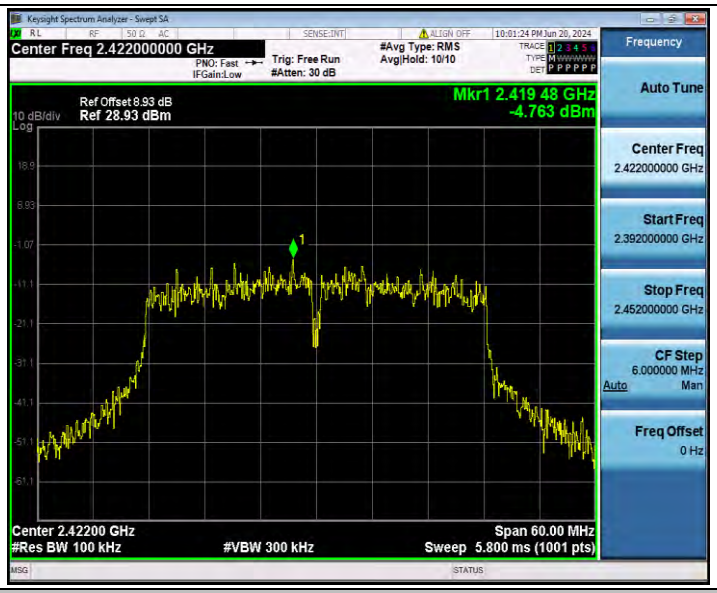

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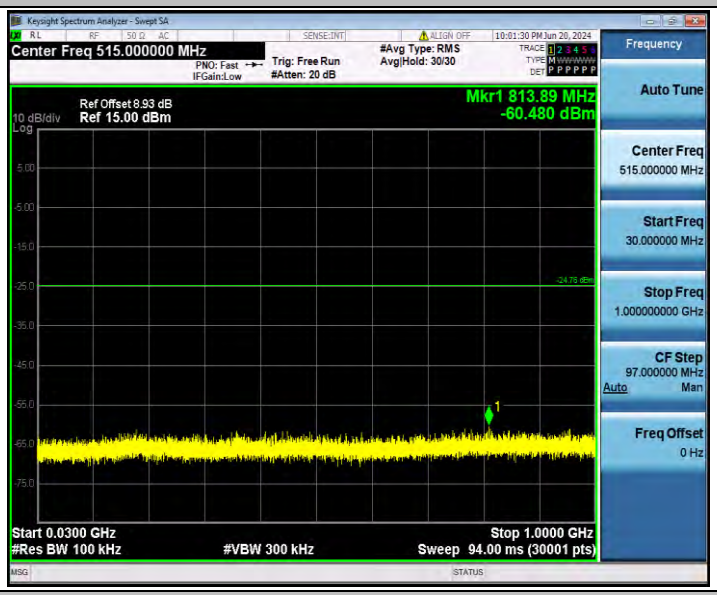

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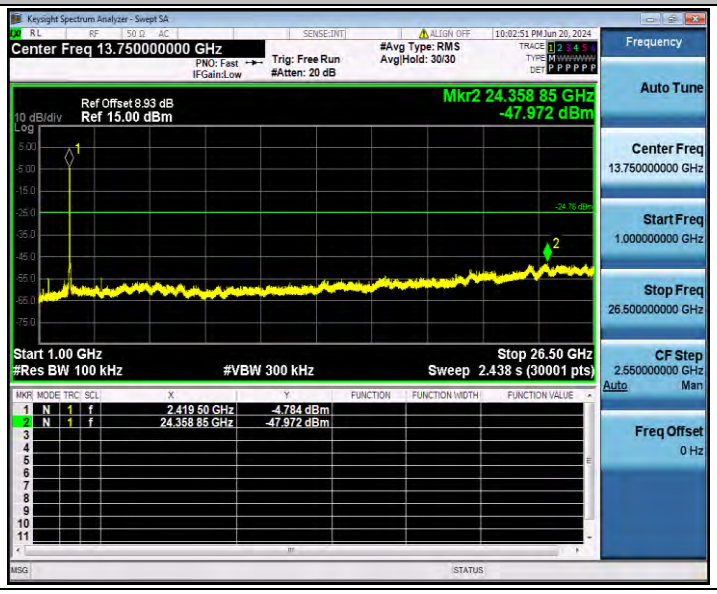

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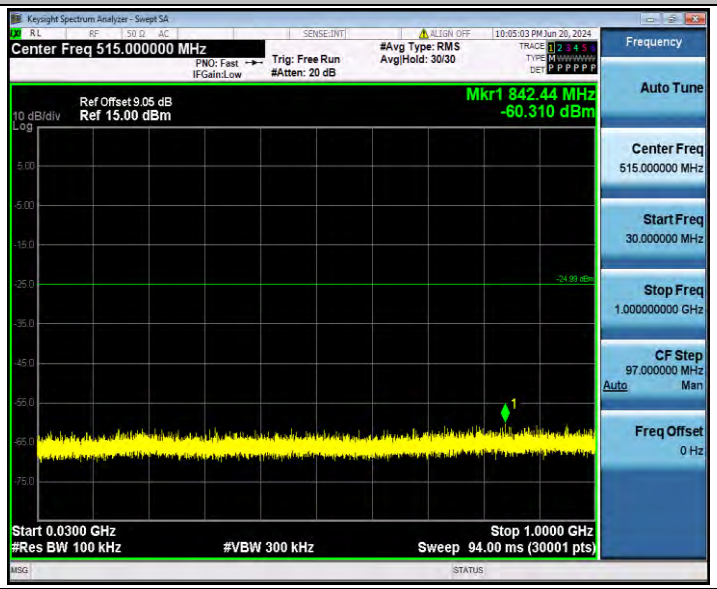
11N40SISO_Ant1_2437_30~1000



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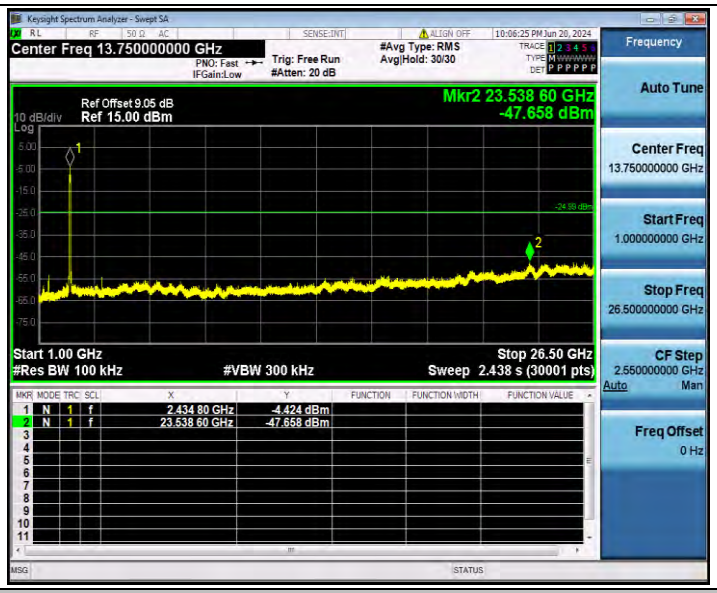

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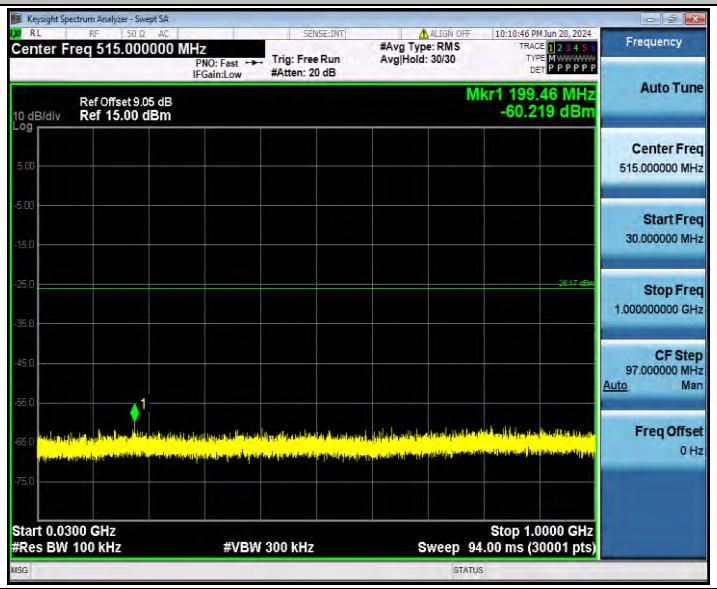
11N40SISO_Ant1_2452_30~1000



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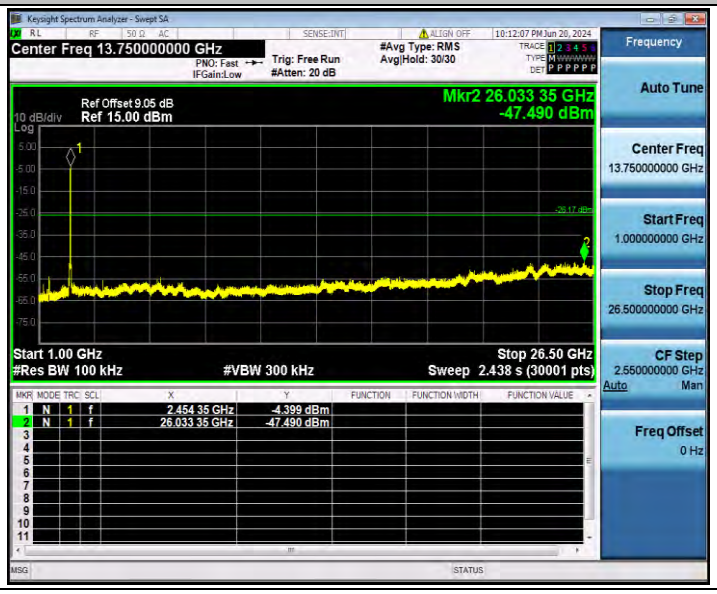


Appendix C.7: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11B	Ant1	Low	2412	AV	2310.000	-49.52	≤-41.20	45.68	≤54	PASS
				AV	2386.060	-47.18	≤-41.20	48.02	≤54	PASS
				AV	2390.000	-48.81	≤-41.20	46.39	≤54	PASS
				Peak	2310.000	-42.64	≤-21.20	52.56	≤74	PASS
				Peak	2389.960	-37.12	≤-21.20	58.08	≤74	PASS
				Peak	2390.000	-37.12	≤-21.20	58.08	≤74	PASS
		High	2462	AV	2483.500	-44.69	≤-41.20	50.51	≤54	PASS
				AV	2487.630	-44.9	≤-41.20	50.30	≤54	PASS
				AV	2500.000	-47.91	≤-41.20	47.29	≤54	PASS
				Peak	2483.500	-45.97	≤-21.20	49.23	≤74	PASS
				Peak	2486.970	-37.88	≤-21.20	57.32	≤74	PASS
				Peak	2500.000	-47.46	≤-21.20	47.74	≤74	PASS
11G	Ant1	Low	2412	AV	2310.000	-49.29	≤-41.20	45.91	≤54	PASS
				AV	2389.960	-46.1	≤-41.20	49.10	≤54	PASS
				AV	2390.000	-46.1	≤-41.20	49.10	≤54	PASS
				Peak	2310.000	-44.05	≤-21.20	51.15	≤74	PASS
				Peak	2387.620	-24.53	≤-21.20	70.67	≤74	PASS
				Peak	2390.000	-38.33	≤-21.20	56.87	≤74	PASS
		High	2462	AV	2483.500	-45.79	≤-41.20	49.41	≤54	PASS
				AV	2483.560	-45.87	≤-41.20	49.33	≤54	PASS
				AV	2500.000	-48.35	≤-41.20	46.85	≤54	PASS
				Peak	2483.500	-28.11	≤-21.20	67.09	≤74	PASS
				Peak	2483.560	-24.93	≤-21.20	70.27	≤74	PASS
				Peak	2500.000	-42.57	≤-21.20	52.63	≤74	PASS
11N20SISO	Ant1	Low	2412	AV	2310.000	-49.5	≤-41.20	45.70	≤54	PASS
				AV	2389.960	-47.19	≤-41.20	48.01	≤54	PASS
				AV	2390.000	-47.19	≤-41.20	48.01	≤54	PASS
				Peak	2310.000	-47.85	≤-21.20	47.35	≤74	PASS
				Peak	2385.670	-35.73	≤-21.20	59.47	≤74	PASS
				Peak	2390.000	-41.64	≤-21.20	53.56	≤74	PASS
		High	2462	AV	2483.500	-46.93	≤-41.20	48.27	≤54	PASS
				AV	2483.560	-47.02	≤-41.20	48.18	≤54	PASS
				AV	2500.000	-48.64	≤-41.20	46.56	≤54	PASS
				Peak	2483.500	-48.92	≤-21.20	46.28	≤74	PASS

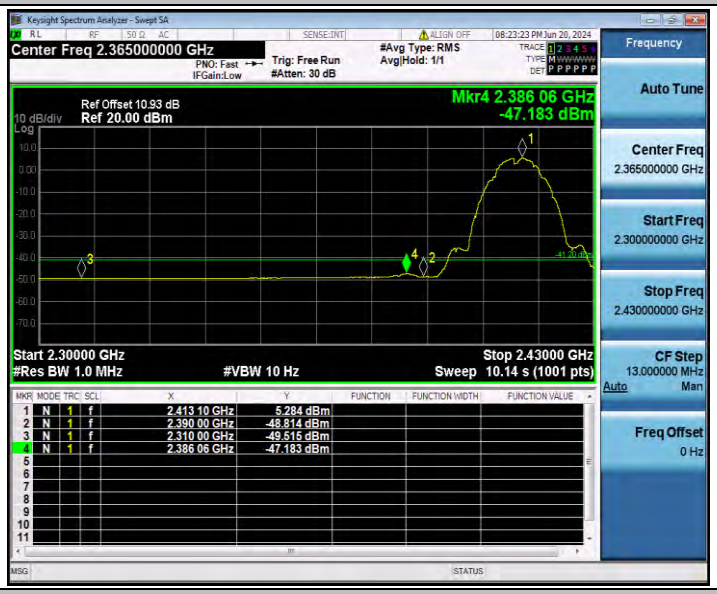
				Peak	2498.740	-40.17	≤-21.20	55.03	≤74	PASS
				Peak	2500.000	-46.38	≤-21.20	48.82	≤74	PASS
11N40SISO	Ant1	Low	2422	AV	2310.000	-49.57	≤-41.20	45.63	≤54	PASS
				AV	2389.570	-47.78	≤-41.20	47.42	≤54	PASS
				AV	2390.000	-47.84	≤-41.20	47.36	≤54	PASS
				Peak	2310.000	-49.5	≤-21.20	45.70	≤74	PASS
				Peak	2378.390	-33.66	≤-21.20	61.54	≤74	PASS
				Peak	2390.000	-47.32	≤-21.20	47.88	≤74	PASS
		High	2452	AV	2483.500	-47.26	≤-41.20	47.94	≤54	PASS
				AV	2483.560	-47.34	≤-41.20	47.86	≤54	PASS
				AV	2500.000	-48.43	≤-41.20	46.77	≤54	PASS
				Peak	2483.500	-42.92	≤-21.20	52.28	≤74	PASS
				Peak	2489.280	-36.88	≤-21.20	58.32	≤74	PASS
				Peak	2500.000	-44.95	≤-21.20	50.25	≤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



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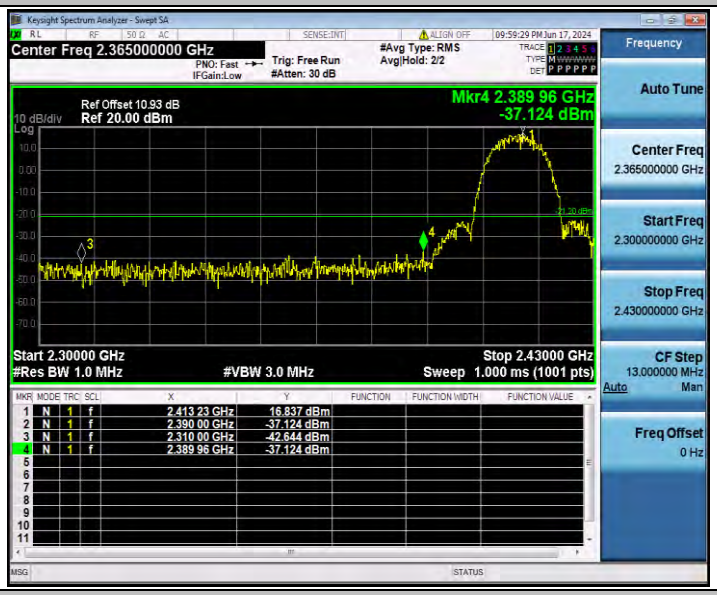
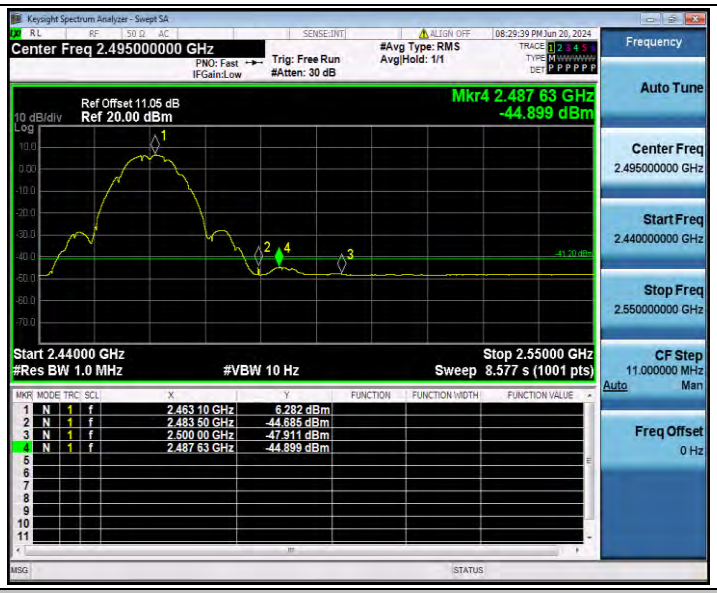


11B_Ant1_High_2462_AV



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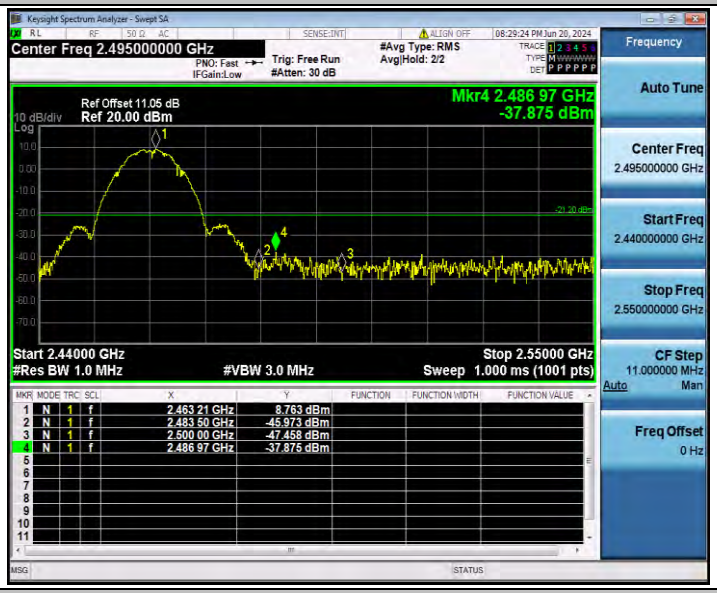

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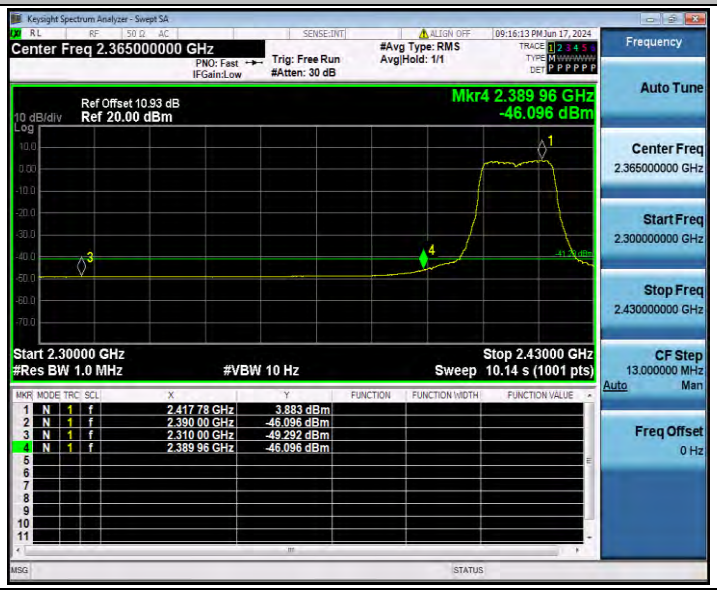

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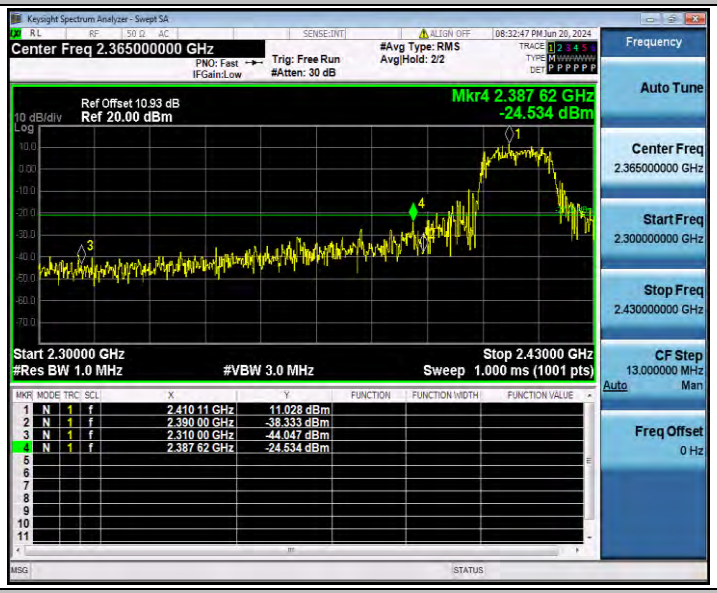

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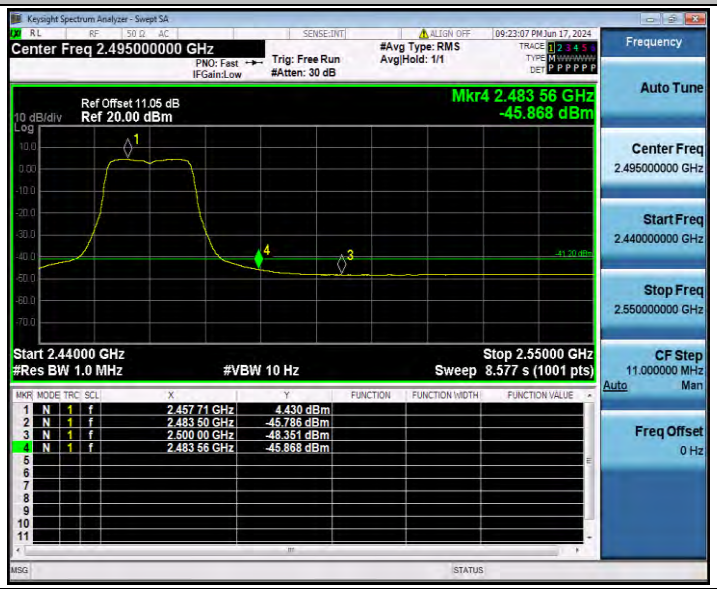

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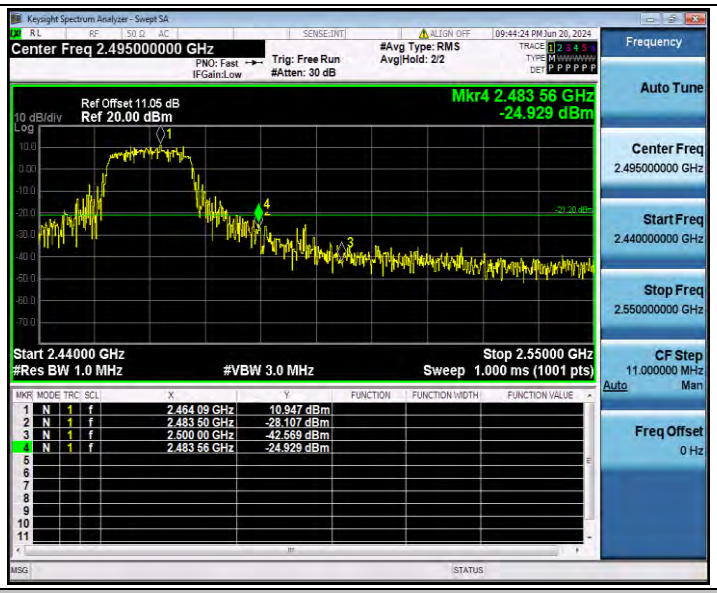

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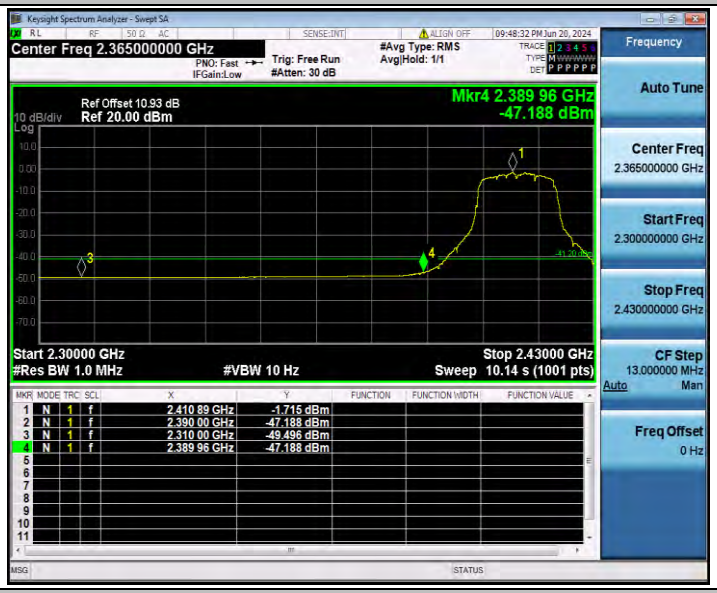

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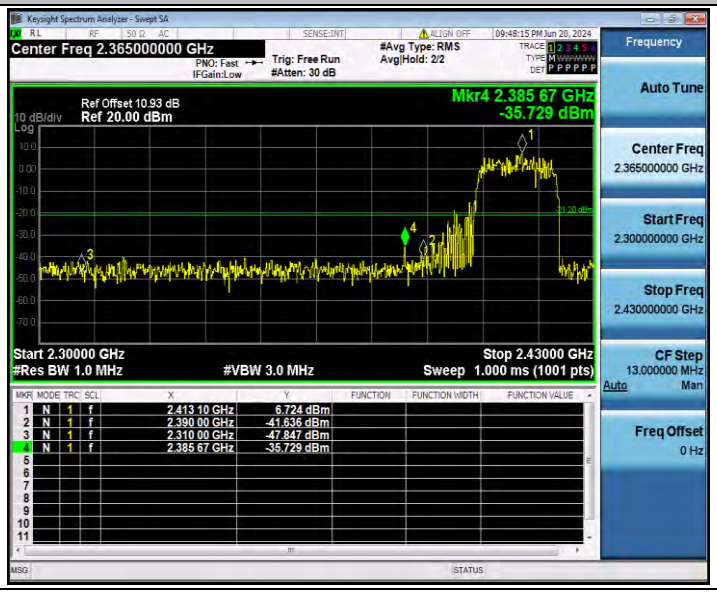

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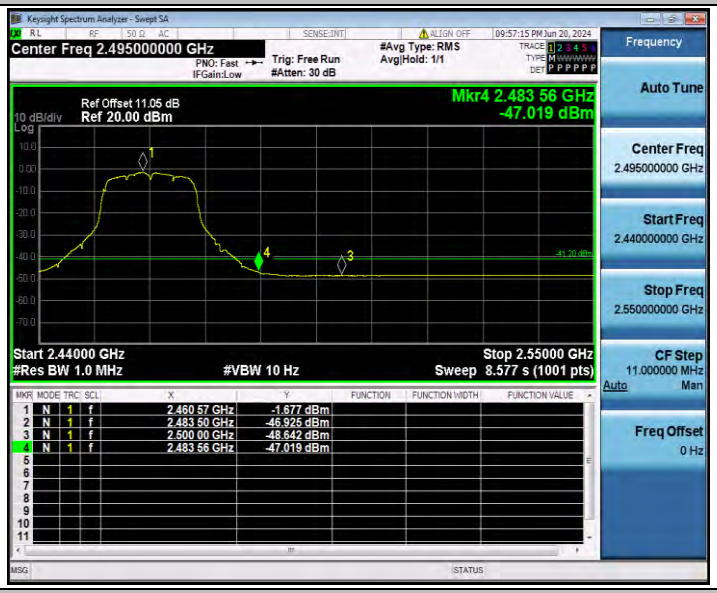

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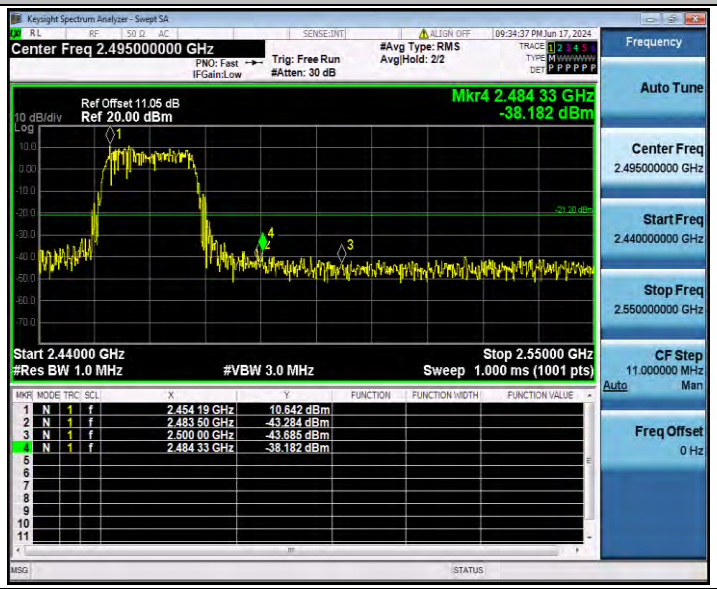

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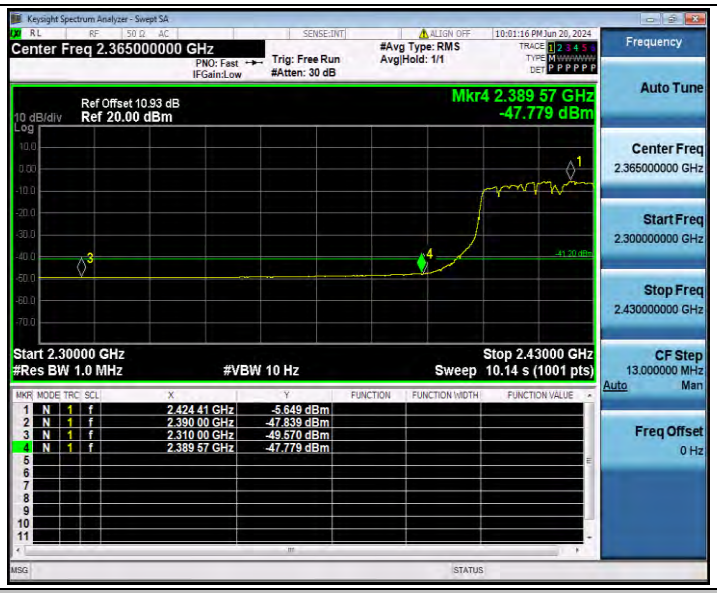

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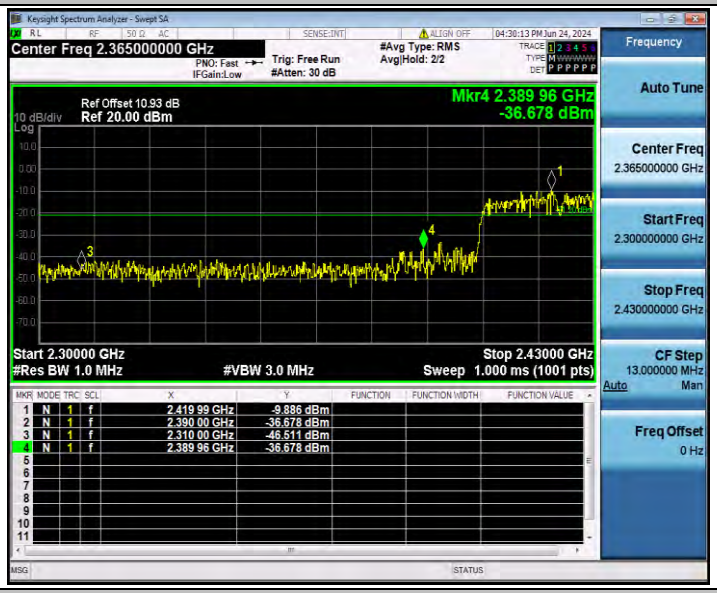

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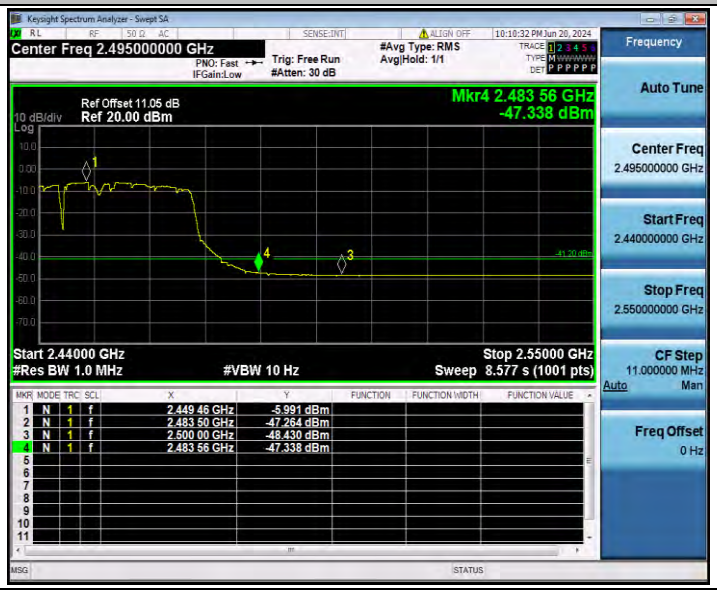
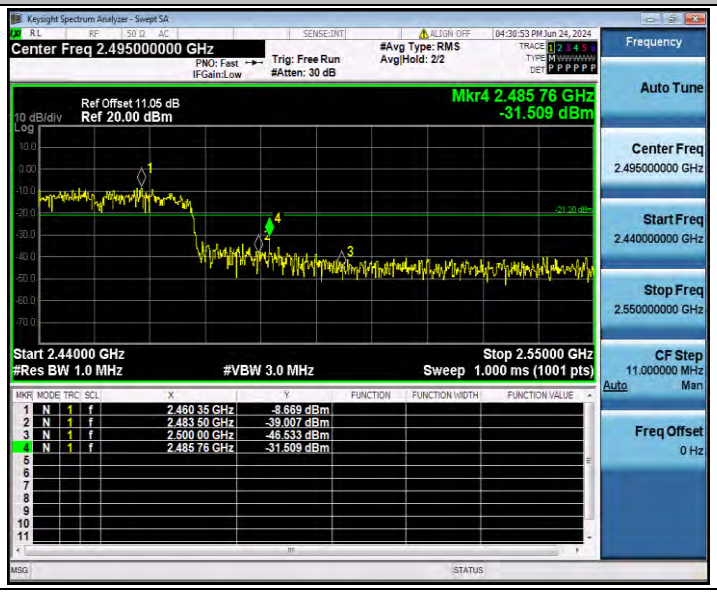
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