RF Test Data for 2.4G Wi-Fi (Conducted Measurements)

General Description of EUT	
Product Name:	**ORBIT RECAST**
Test Model:	**ORBIT RECAST/KR1518**
Sample ID:	**HC-C-202408-0199-02-01**
Environmental Conditions	
Temperature:	**24.6℃**
Relative Humidity:	**52.3%RH**
Test Voltage:	**DC 3.8V**
Test Engineer:	**Jolin.Lee**
Note: For a more detailed features description, please refer to the report TBR-C-202408-0199-5	

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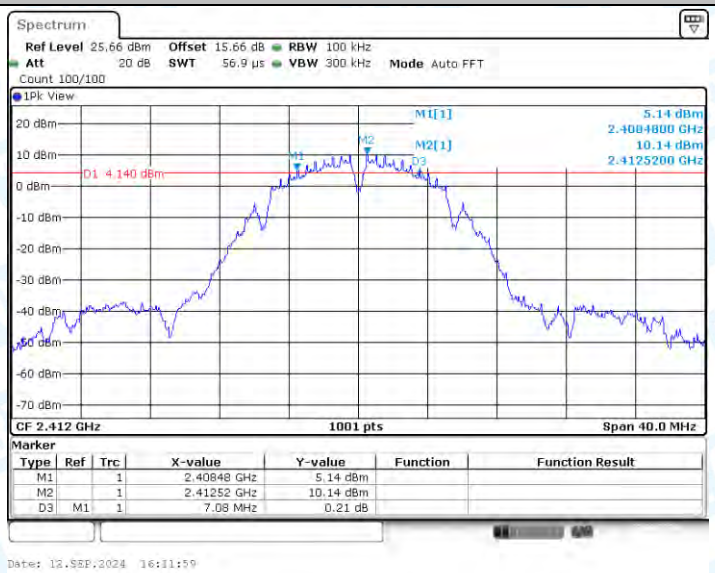
1. DTS Bandwidth

1.1.Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	7.08	2408.48	2415.56	0.5	PASS
	Ant2	2412	7.08	2408.48	2415.56	0.5	PASS
	Ant1	2437	7.08	2433.48	2440.56	0.5	PASS
	Ant2	2437	7.08	2433.48	2440.56	0.5	PASS
	Ant1	2462	8.04	2458.00	2466.04	0.5	PASS
	Ant2	2462	8.04	2458.00	2466.04	0.5	PASS
11G-CDD	Ant1	2412	16.32	2403.88	2420.20	0.5	PASS
	Ant2	2412	16.36	2403.84	2420.20	0.5	PASS
	Ant1	2437	16.36	2428.84	2445.20	0.5	PASS
	Ant2	2437	16.32	2428.88	2445.20	0.5	PASS
	Ant1	2462	16.32	2453.88	2470.20	0.5	PASS
	Ant2	2462	16.32	2453.88	2470.20	0.5	PASS
11N20MIMO	Ant1	2412	17.56	2403.24	2420.80	0.5	PASS
	Ant2	2412	17.60	2403.24	2420.84	0.5	PASS
	Ant1	2437	17.56	2428.24	2445.80	0.5	PASS
	Ant2	2437	17.60	2428.24	2445.84	0.5	PASS
	Ant1	2462	17.64	2453.20	2470.84	0.5	PASS
	Ant2	2462	17.56	2453.24	2470.80	0.5	PASS
11AX20MIMO	Ant1	2412	18.16	2403.20	2421.36	0.5	PASS
	Ant2	2412	18.28	2402.76	2421.04	0.5	PASS
	Ant1	2437	17.76	2428.36	2446.12	0.5	PASS
	Ant2	2437	18.52	2427.72	2446.24	0.5	PASS
	Ant1	2462	18.56	2452.96	2471.52	0.5	PASS
	Ant2	2462	17.52	2453.92	2471.44	0.5	PASS

1.2.Test Graphs

11B-CDD_Ant1_2412



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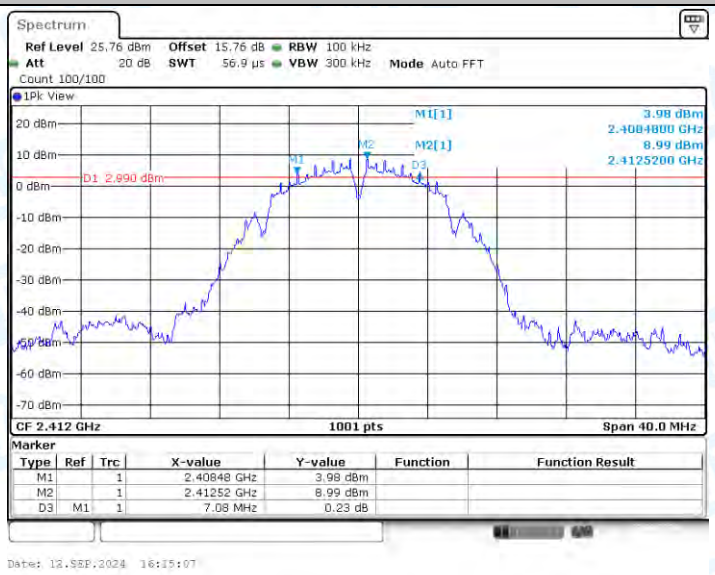

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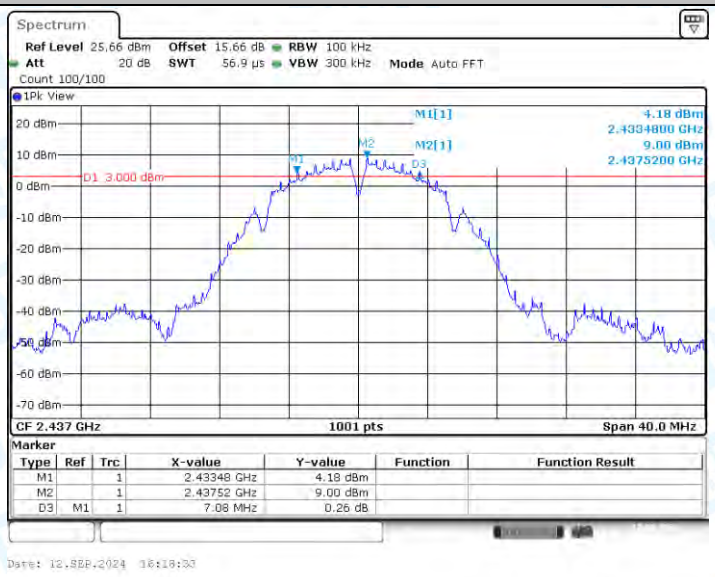

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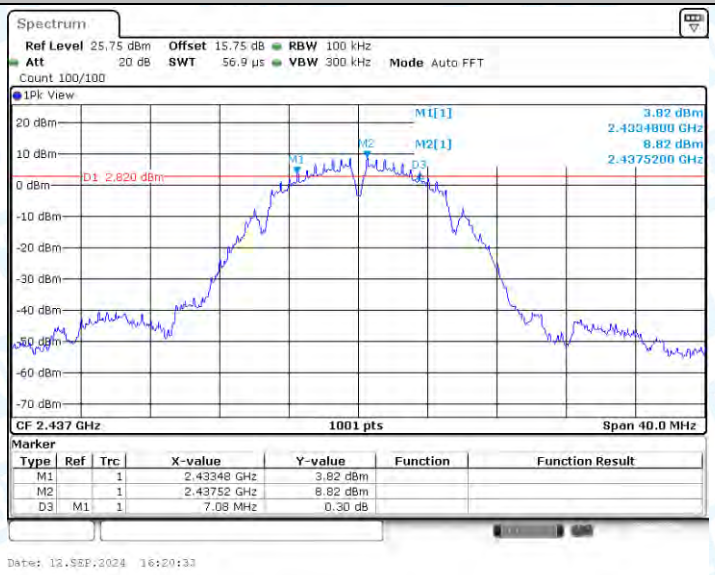

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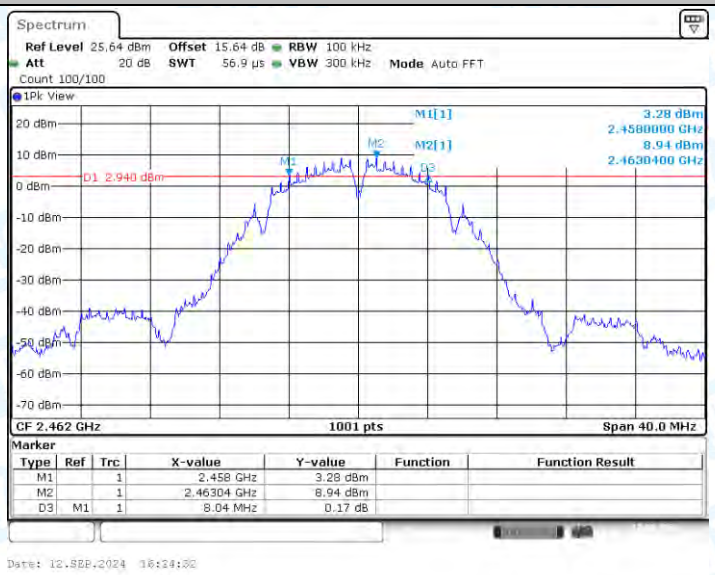

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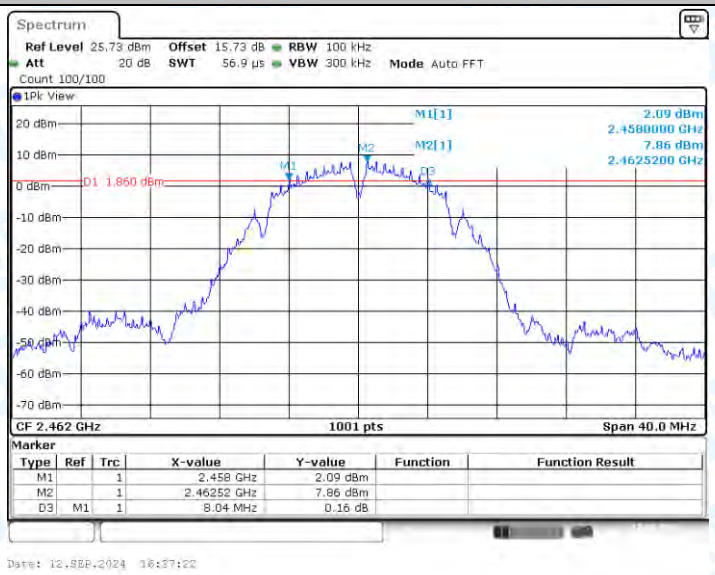

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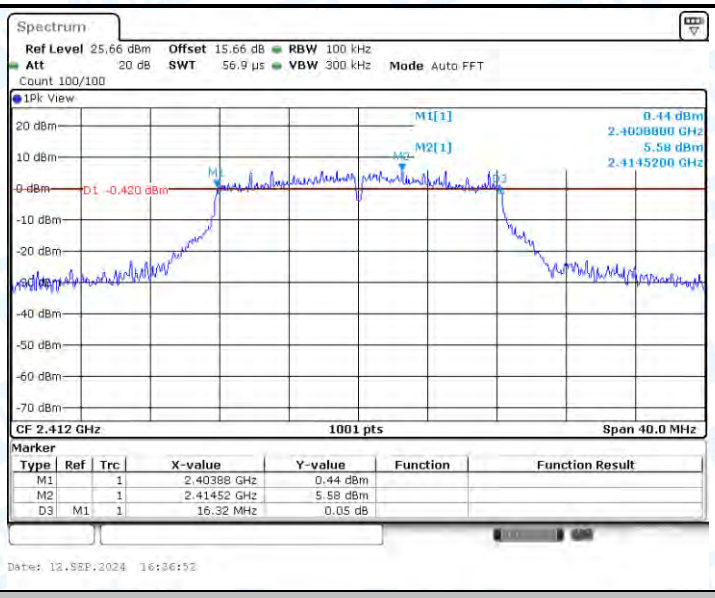

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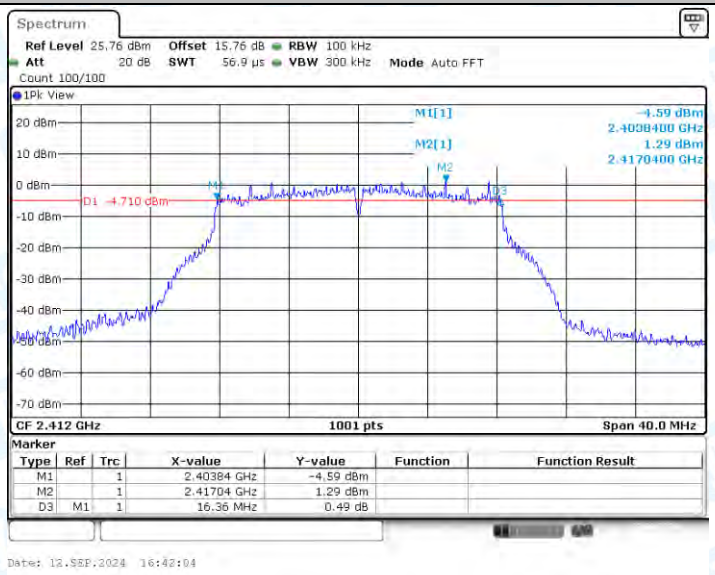

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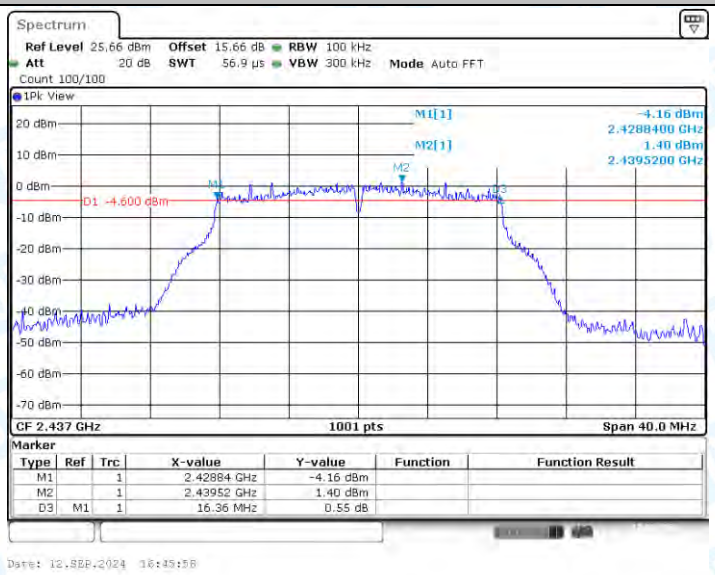

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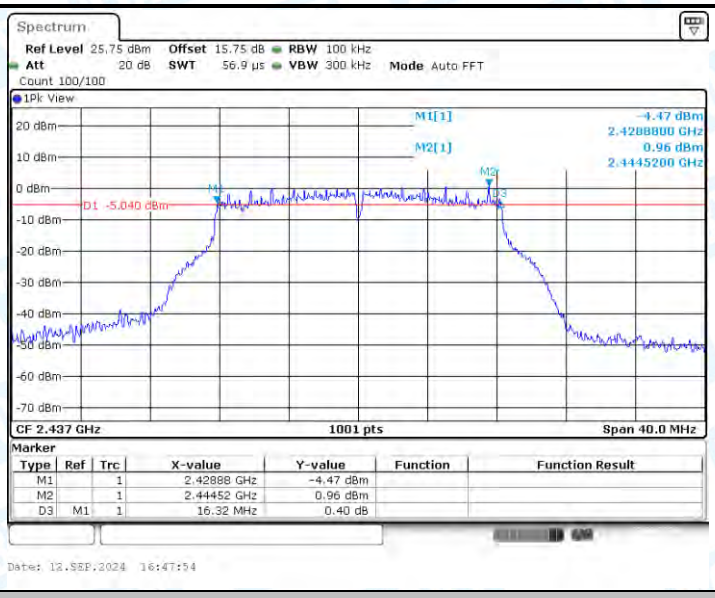

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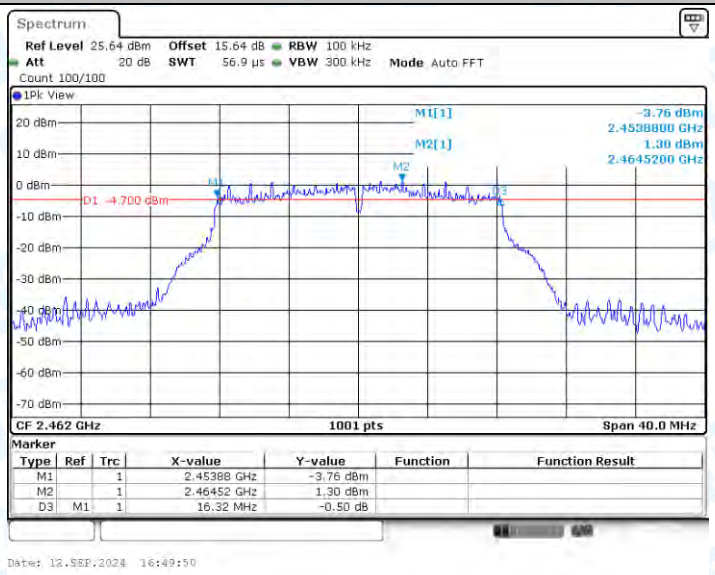

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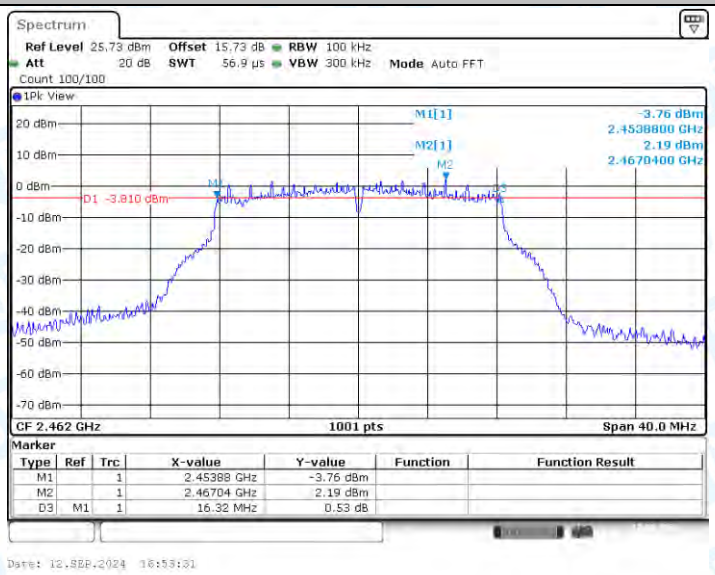

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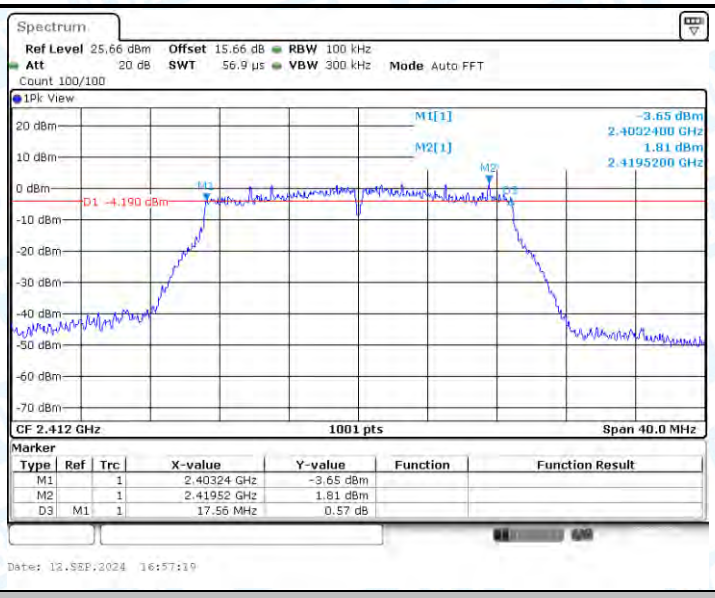

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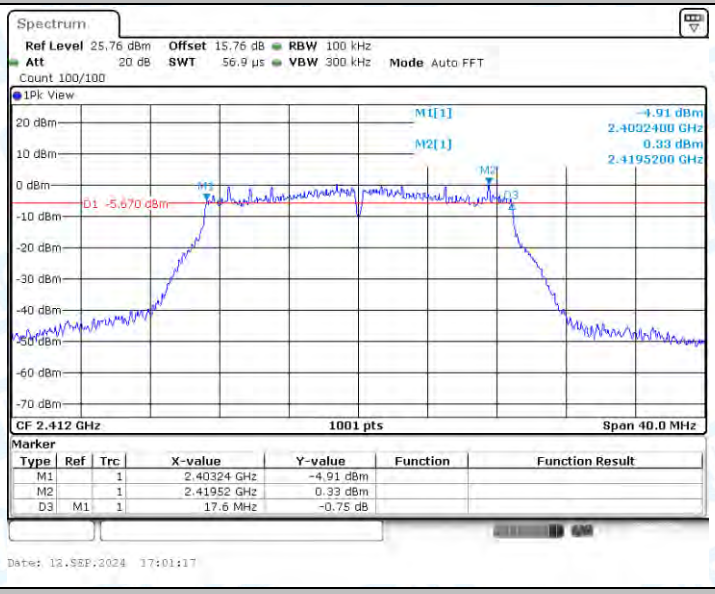

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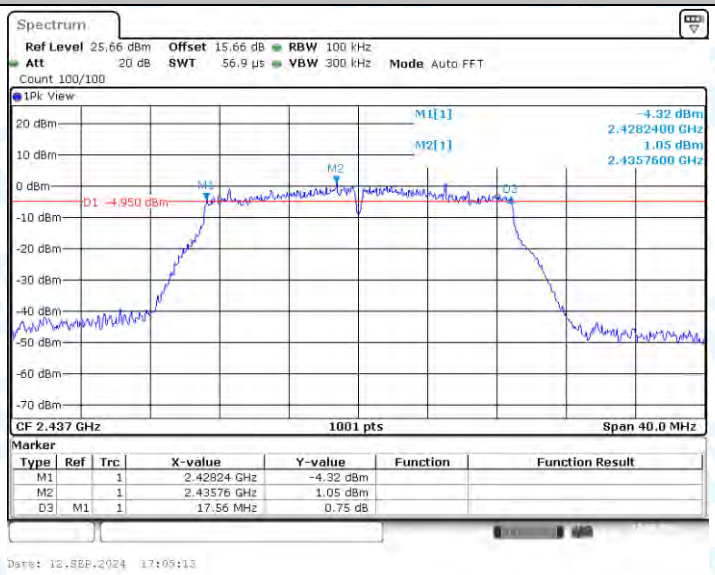

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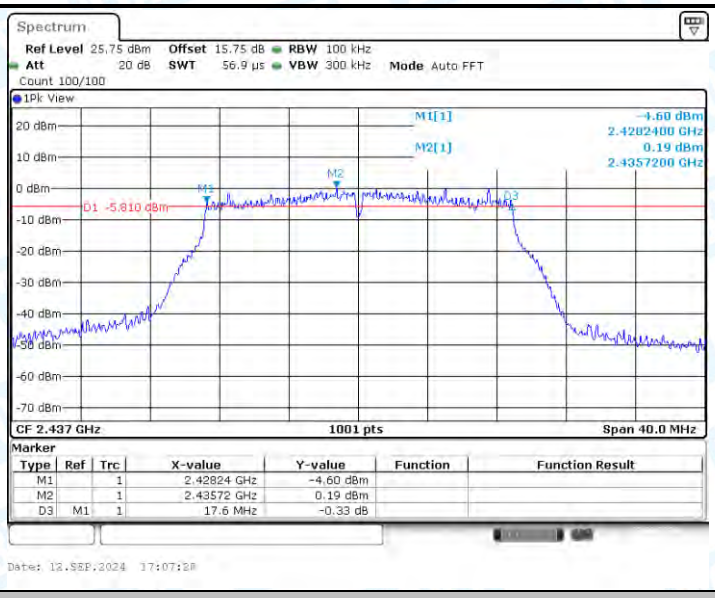

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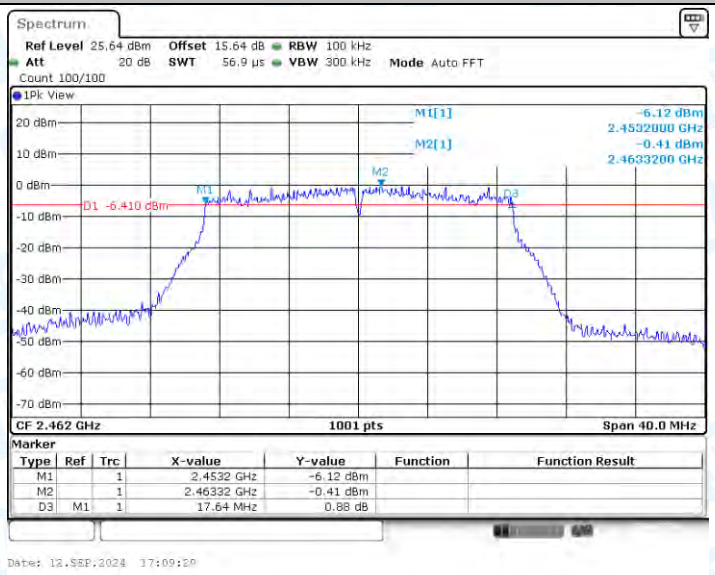

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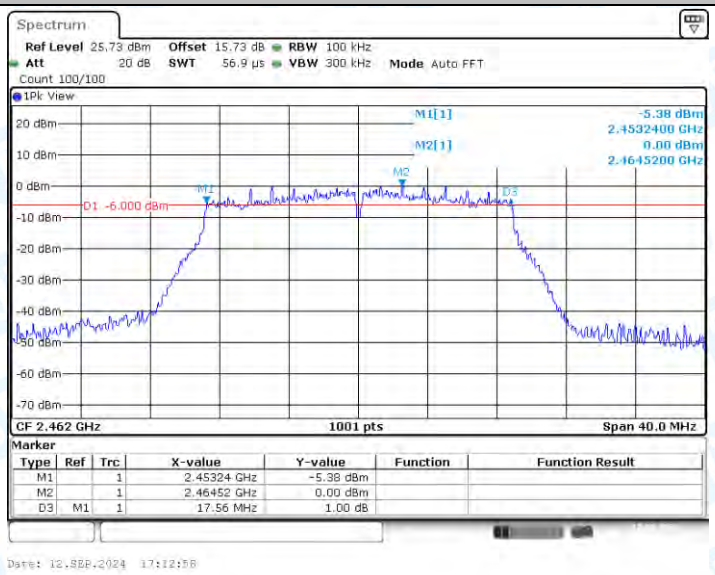

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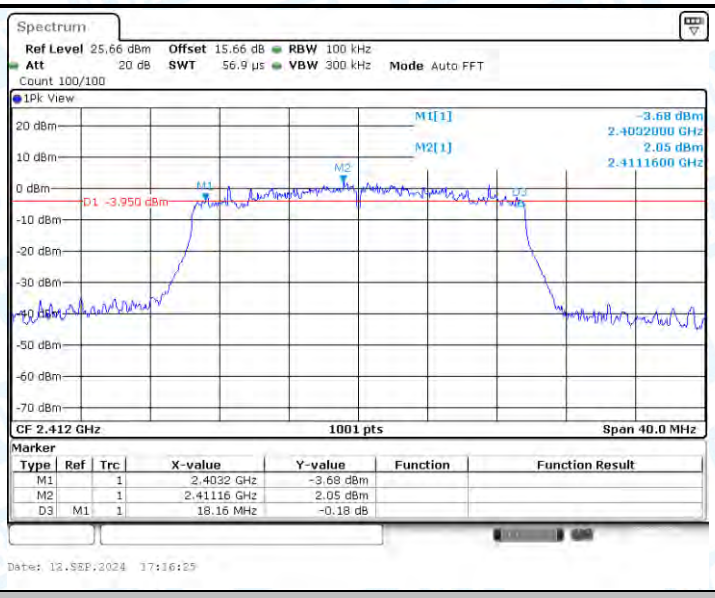

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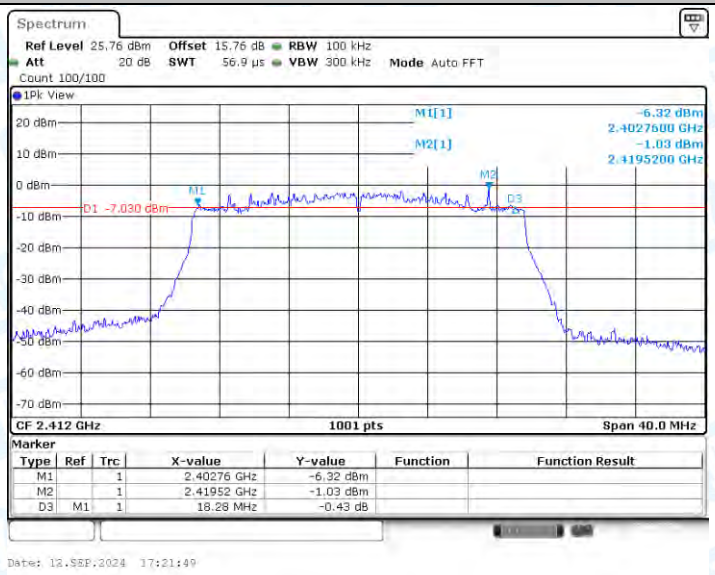

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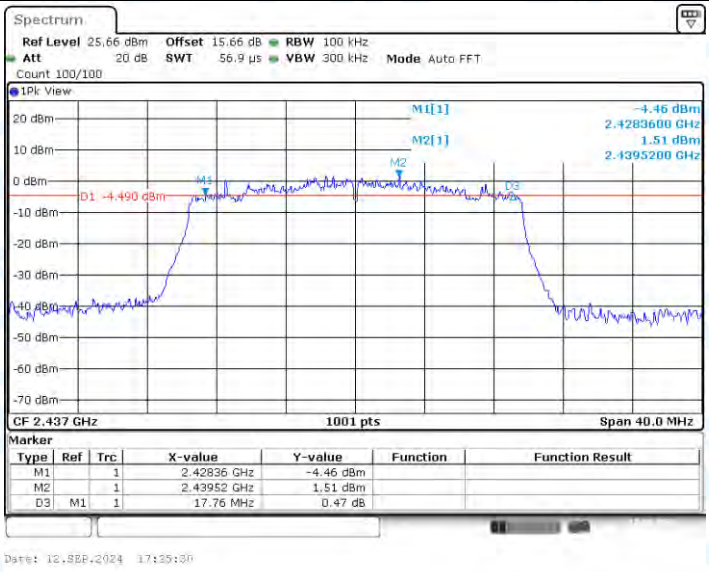

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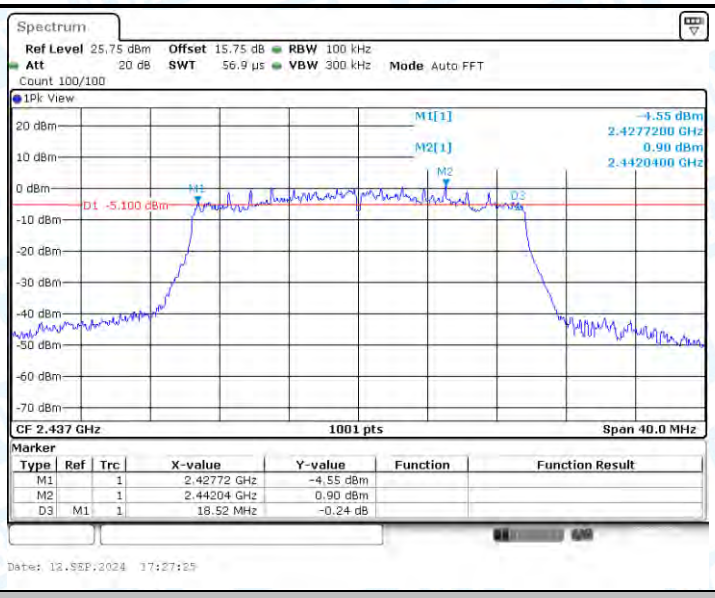

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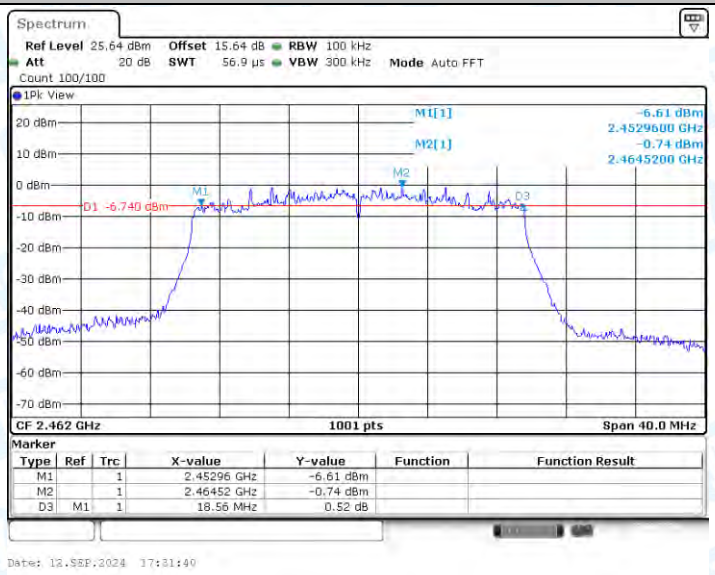

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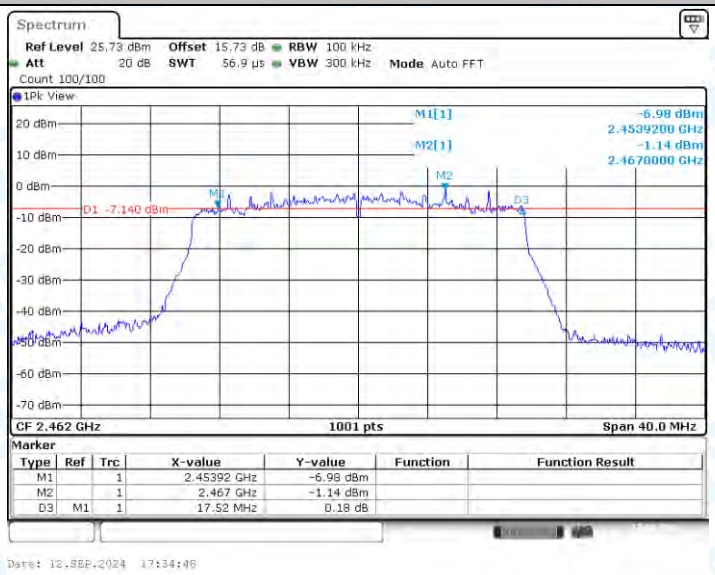


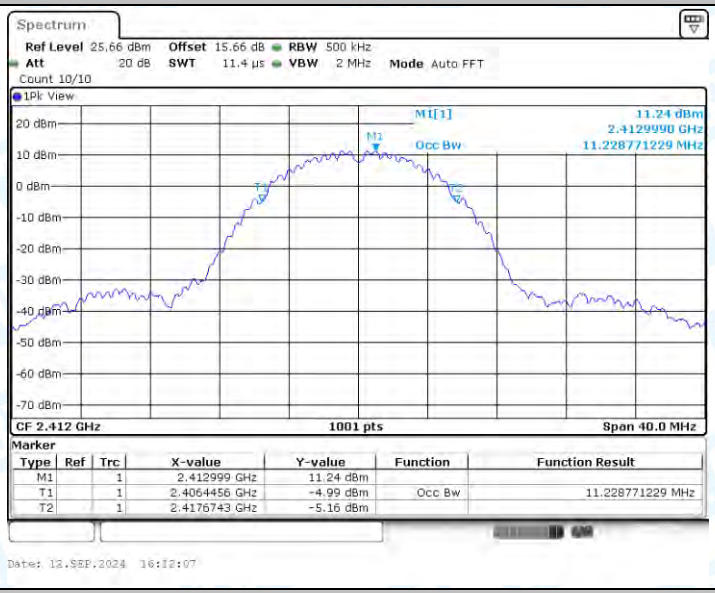
2. Occupied Channel Bandwidth

2.1.Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	11.229	2406.4456	2417.6743	---	---
	Ant2	2412	11.189	2406.4456	2417.6344	---	---
	Ant1	2437	11.349	2431.3656	2442.7143	---	---
	Ant2	2437	11.229	2431.4456	2442.6743	---	---
	Ant1	2462	11.349	2456.3656	2467.7143	---	---
	Ant2	2462	11.149	2456.4855	2467.6344	---	---
11G-CDD	Ant1	2412	17.223	2403.4486	2420.6713	---	---
	Ant2	2412	17.383	2403.5285	2420.9111	---	---
	Ant1	2437	16.983	2428.5684	2445.5514	---	---
	Ant2	2437	17.063	2428.4086	2445.4715	---	---
	Ant1	2462	17.383	2453.3686	2470.7512	---	---
	Ant2	2462	16.943	2453.5285	2470.4715	---	---
11N20MIMO	Ant1	2412	18.262	2402.7692	2421.0310	---	---
	Ant2	2412	18.422	2402.7293	2421.1508	---	---
	Ant1	2437	18.501	2427.9690	2446.4705	---	---
	Ant2	2437	18.302	2427.8492	2446.1508	---	---
	Ant1	2462	18.661	2452.7293	2471.3906	---	---
	Ant2	2462	18.142	2453.0889	2471.2308	---	---
11AX20MIMO	Ant1	2412	19.261	2402.4895	2421.7502	---	---
	Ant2	2412	18.941	2402.5295	2421.4705	---	---
	Ant1	2437	19.221	2427.3696	2446.5904	---	---
	Ant2	2437	19.021	2427.5694	2446.5904	---	---
	Ant1	2462	18.901	2452.5694	2471.4705	---	---
	Ant2	2462	19.061	2452.5694	2471.6304	---	---

2.2.Test Graphs

11B-CDD_Ant1_2412



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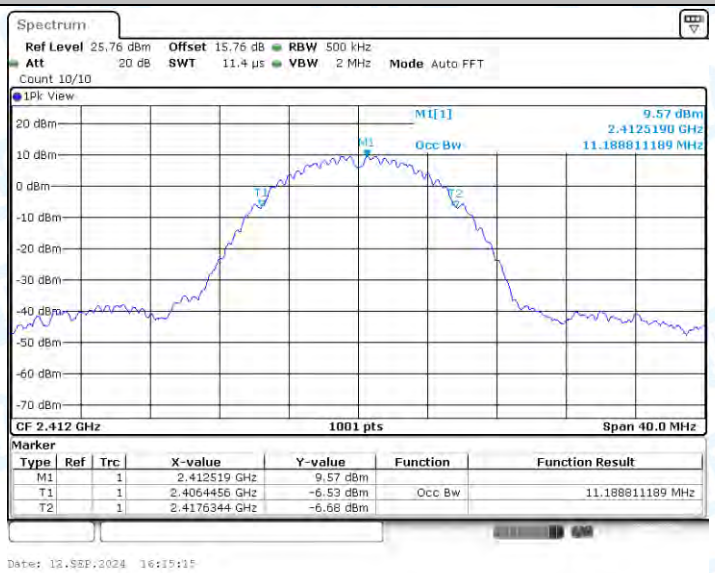

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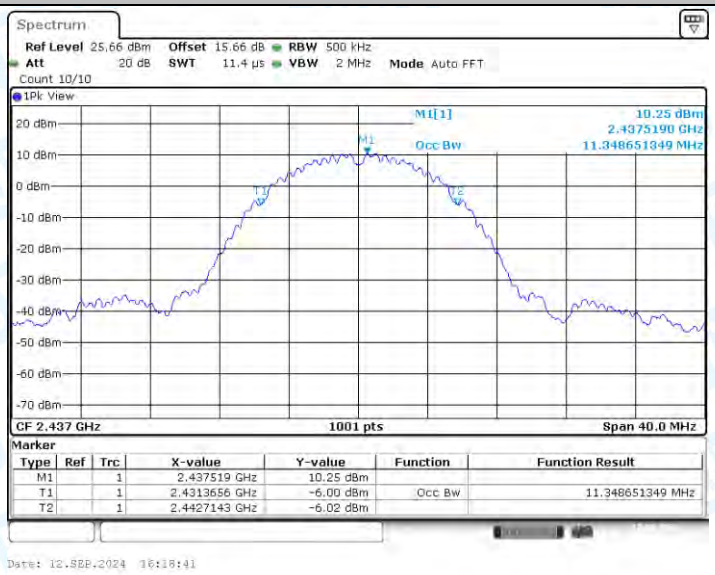

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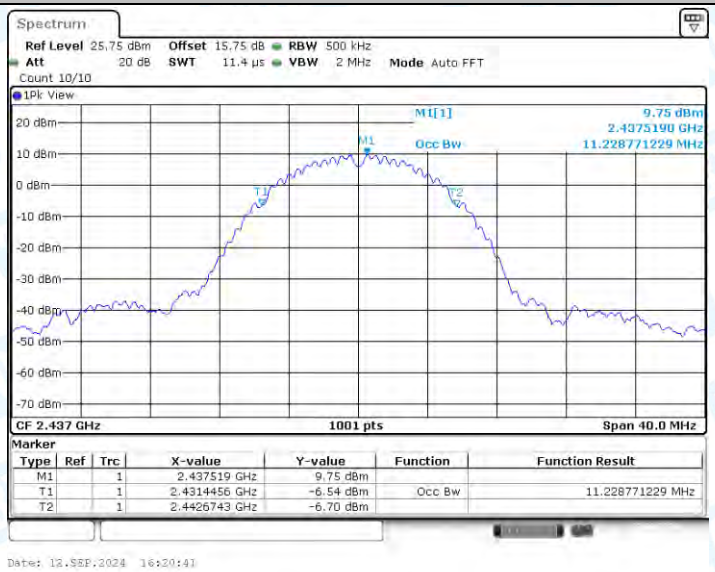

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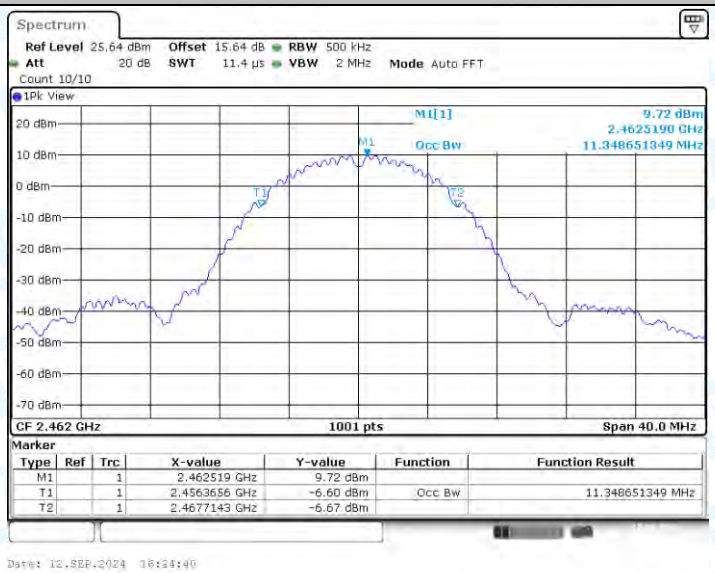

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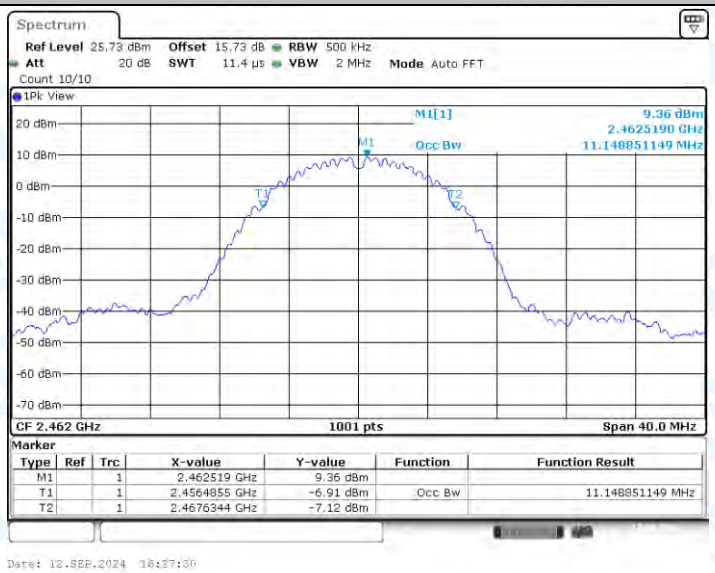

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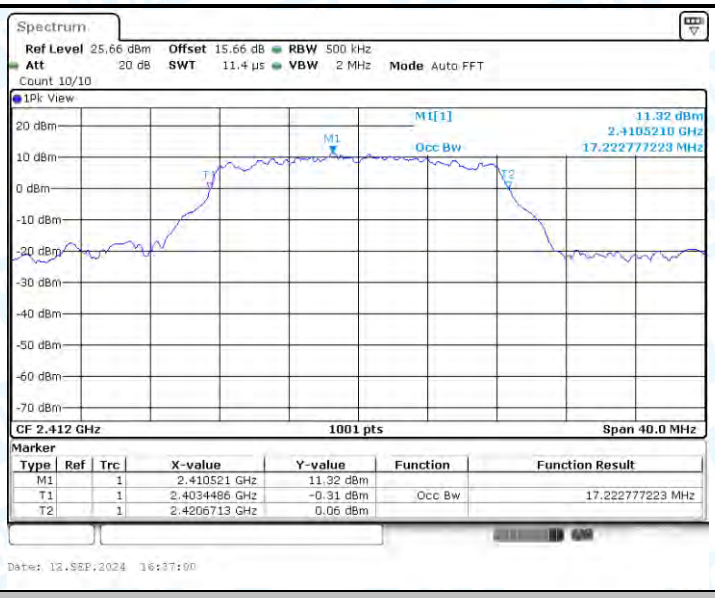

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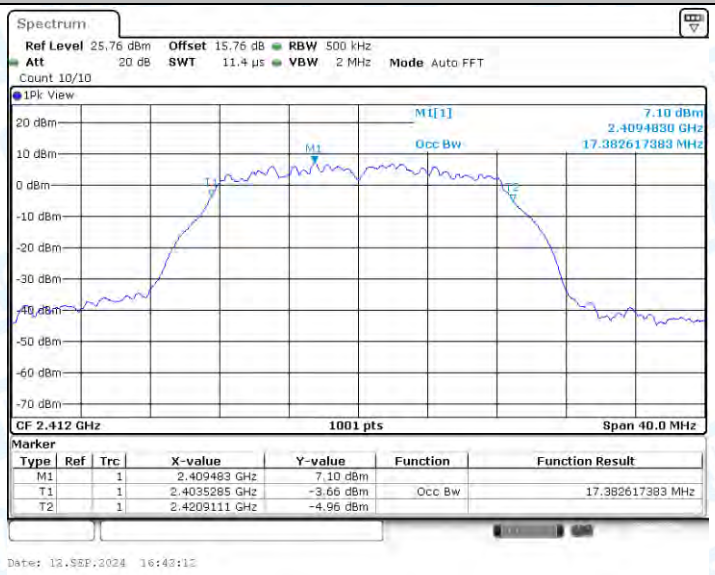

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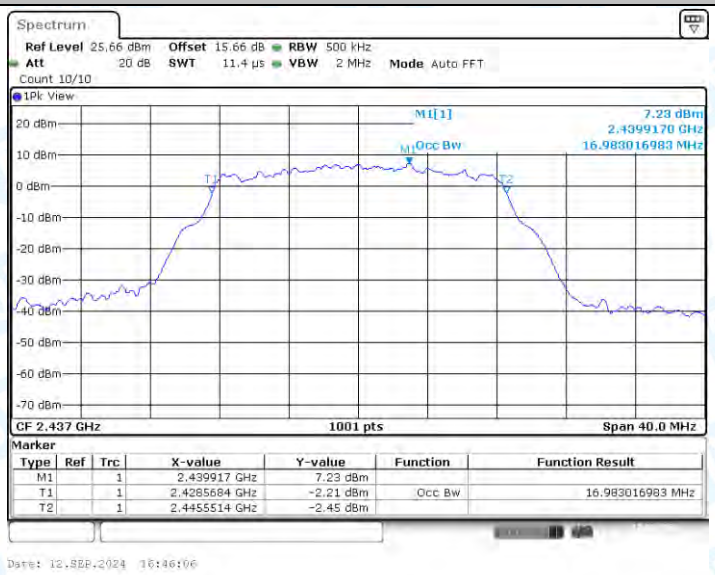

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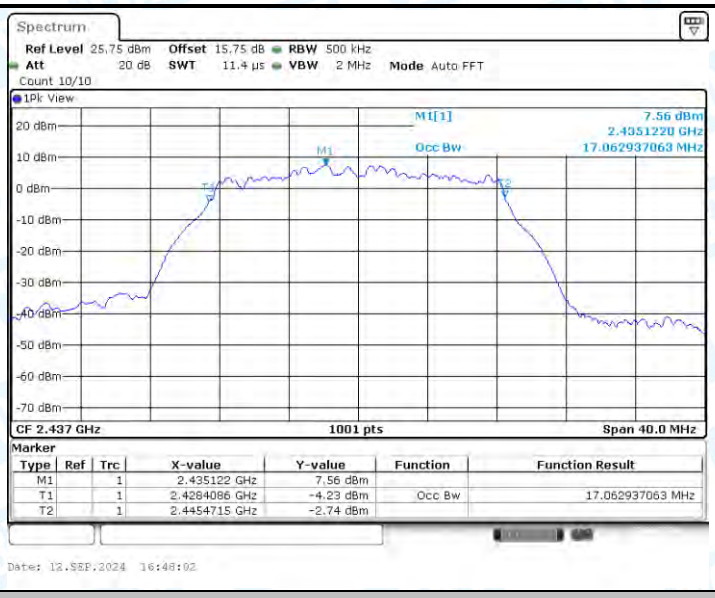

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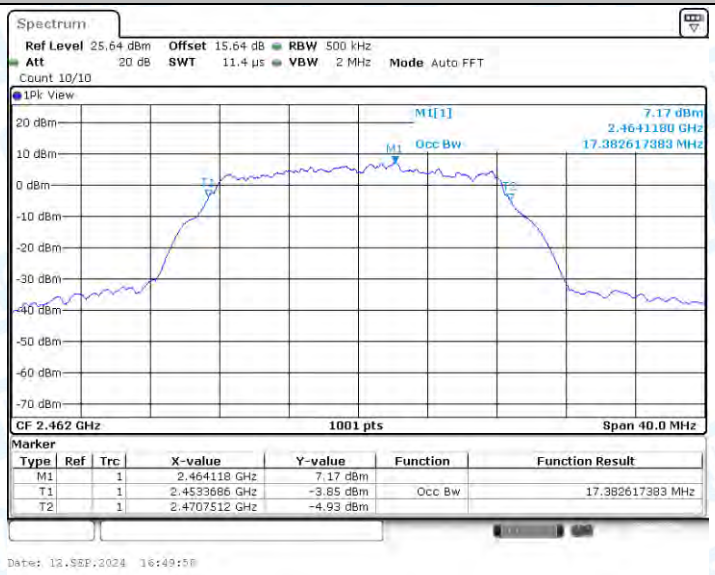

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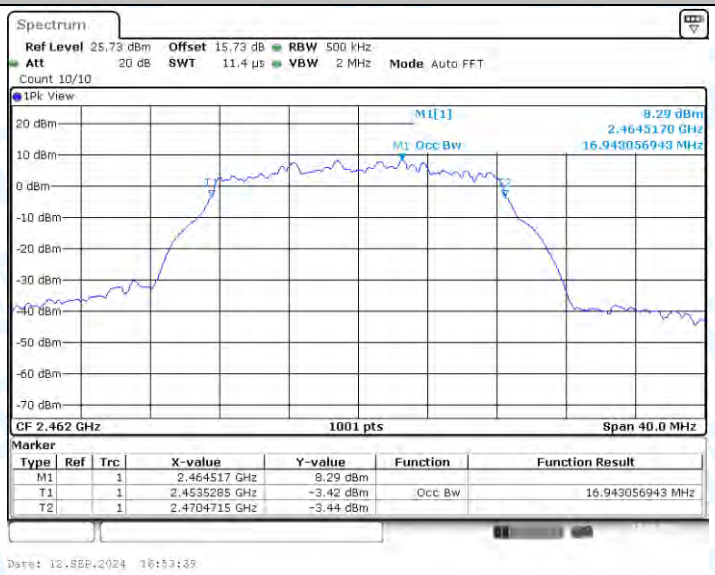

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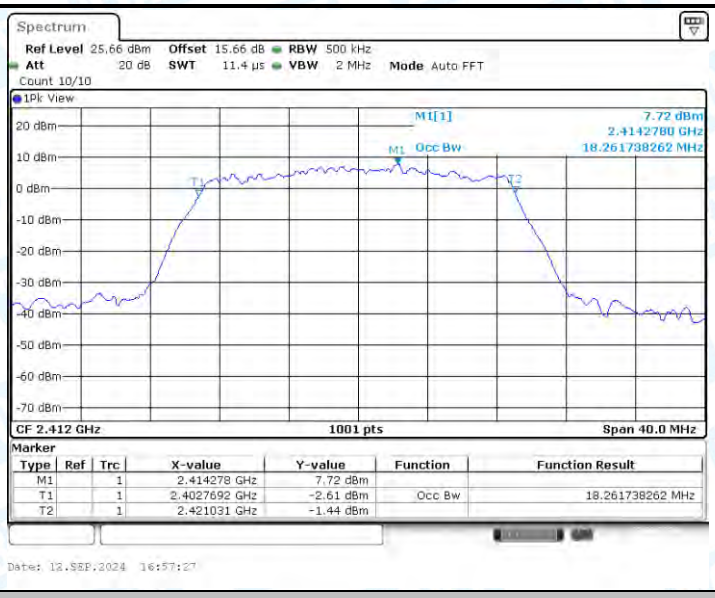

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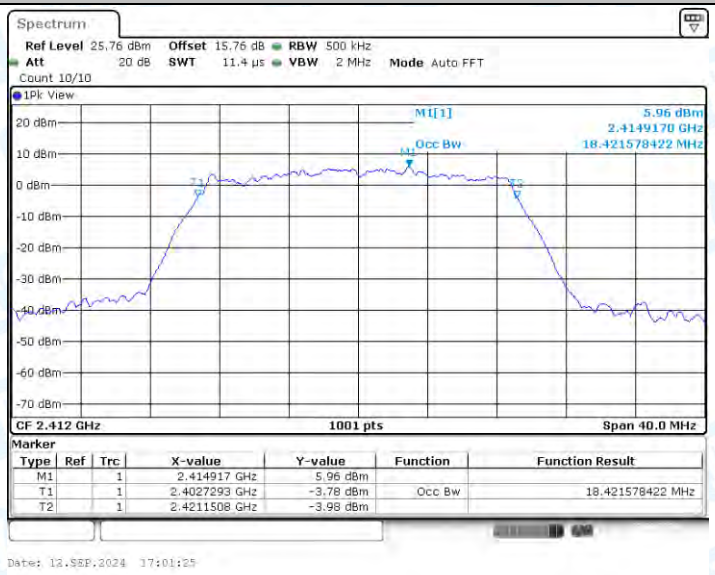

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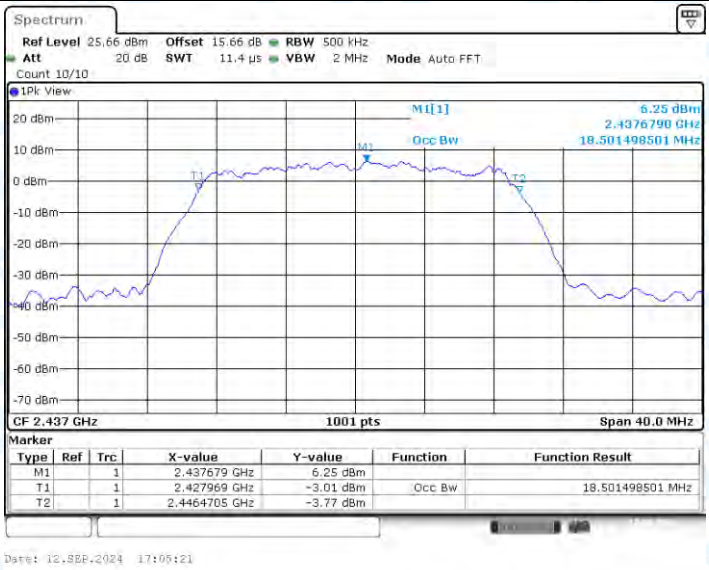

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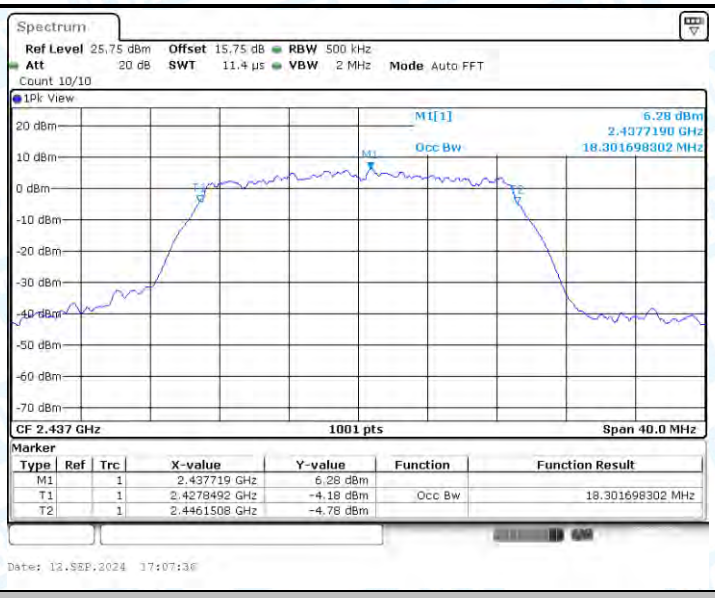
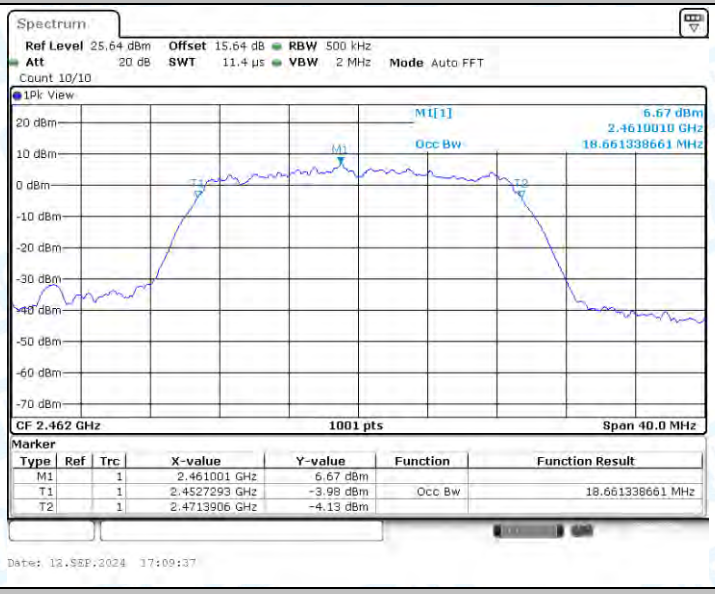
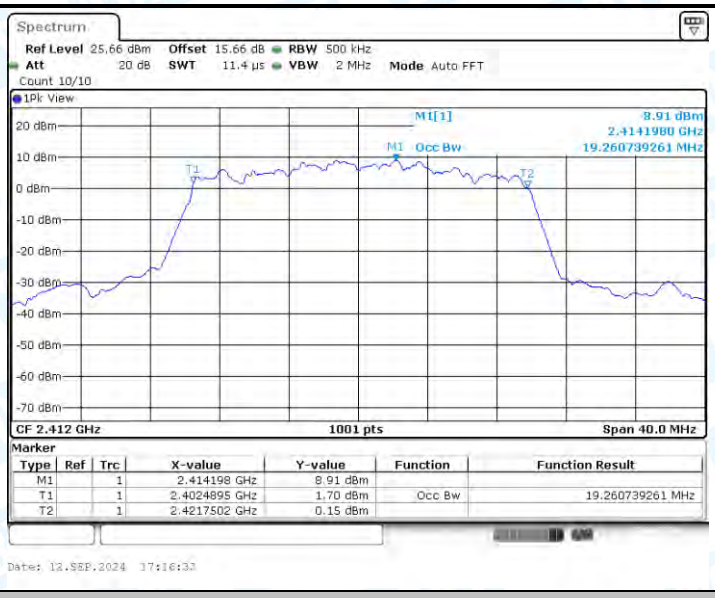


11N20MIMO_Ant1_2462

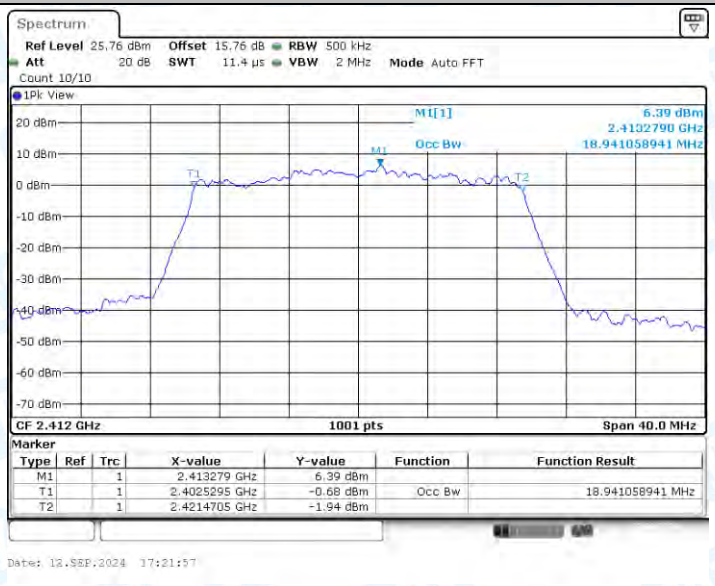


11N20MIMO_Ant2_2462

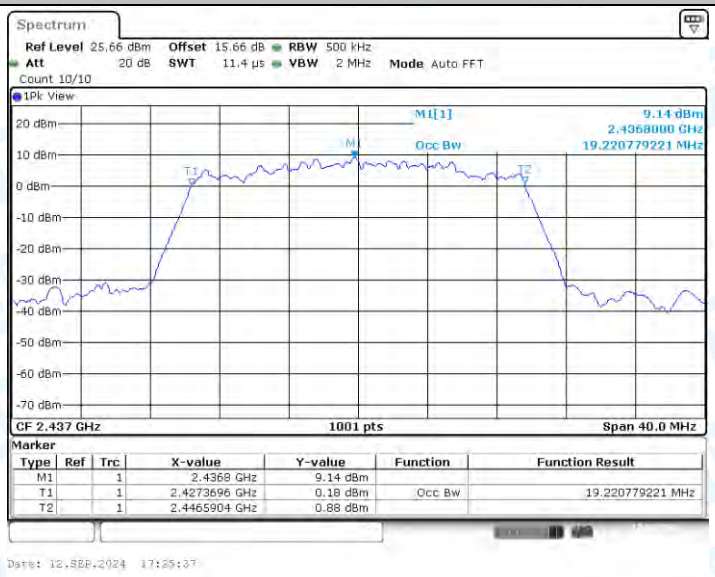
11AX20MIMO_Ant1_2412



11AX20MIMO_Ant2_2412



11AX20MIMO_Ant1_2437



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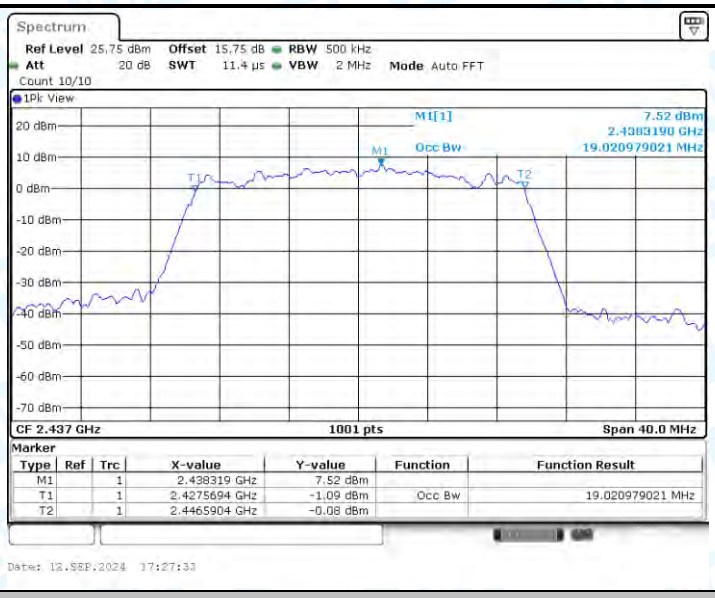

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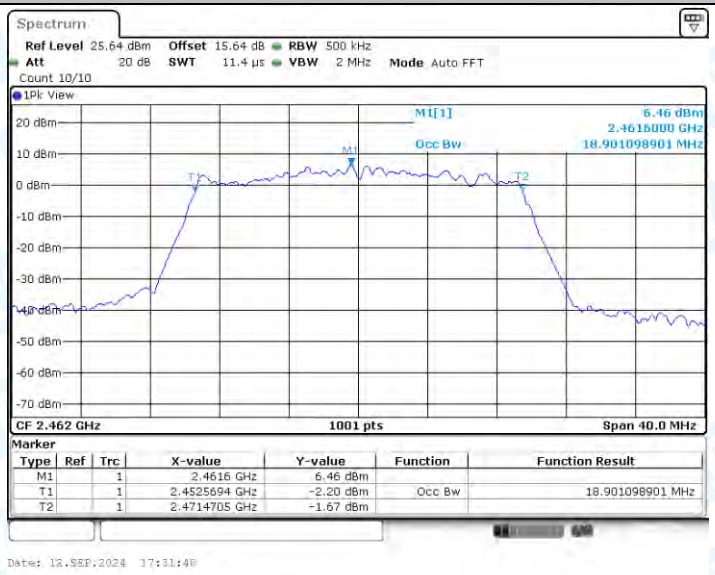
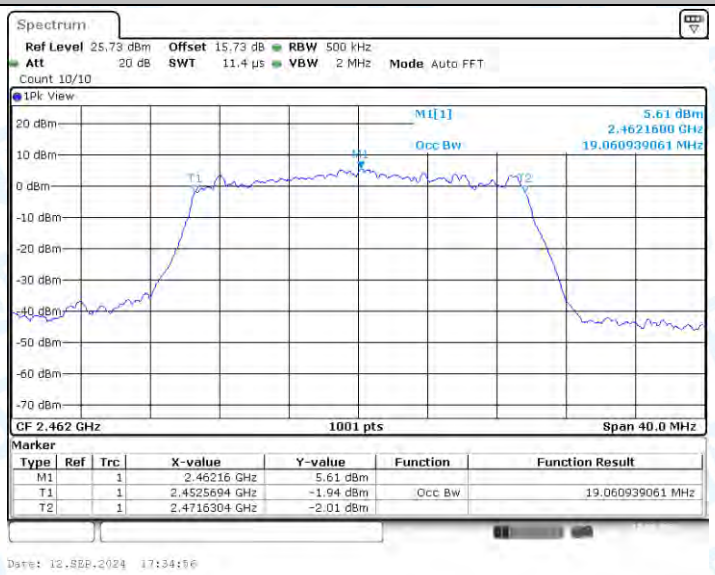


11AX20MIMO_Ant2_2462



3. Maximum conducted output power

3.1.Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B-CDD	Ant1	2412	15.98	≤30.00	PASS
	Ant2	2412	14.27	≤30.00	PASS
	total	2412	18.22	≤30.00	PASS
	Ant1	2437	16.97	≤30.00	PASS
	Ant2	2437	16.45	≤30.00	PASS
	total	2437	19.73	≤30.00	PASS
	Ant1	2462	16.58	≤30.00	PASS
	Ant2	2462	13.94	≤30.00	PASS
	total	2462	18.47	≤30.00	PASS
11G-CDD	Ant1	2412	14.08	≤30.00	PASS
	Ant2	2412	13.05	≤30.00	PASS
	total	2412	16.61	≤30.00	PASS
	Ant1	2437	13.80	≤30.00	PASS
	Ant2	2437	12.81	≤30.00	PASS
	total	2437	16.34	≤30.00	PASS
	Ant1	2462	14.26	≤30.00	PASS
	Ant2	2462	13.87	≤30.00	PASS
	total	2462	17.08	≤30.00	PASS
11N20MIMO	Ant1	2412	13.98	≤30.00	PASS
	Ant2	2412	12.97	≤30.00	PASS
	total	2412	16.51	≤30.00	PASS
	Ant1	2437	13.39	≤30.00	PASS
	Ant2	2437	12.81	≤30.00	PASS
	total	2437	16.12	≤30.00	PASS
	Ant1	2462	13.10	≤30.00	PASS
	Ant2	2462	12.58	≤30.00	PASS
	total	2462	15.86	≤30.00	PASS
11AX20MIMO	Ant1	2412	12.59	≤30.00	PASS
	Ant2	2412	11.62	≤30.00	PASS
	total	2412	15.14	≤30.00	PASS
	Ant1	2437	13.16	≤30.00	PASS
	Ant2	2437	12.20	≤30.00	PASS
	total	2437	15.72	≤30.00	PASS
	Ant1	2462	11.69	≤30.00	PASS
	Ant2	2462	11.26	≤30.00	PASS
	total	2462	14.49	≤30.00	PASS

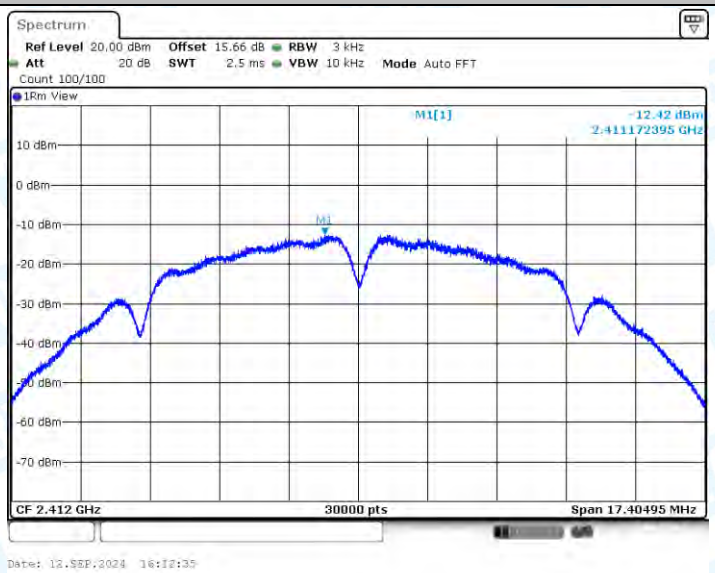
4. Maximum power spectral density

4.1.Test Result

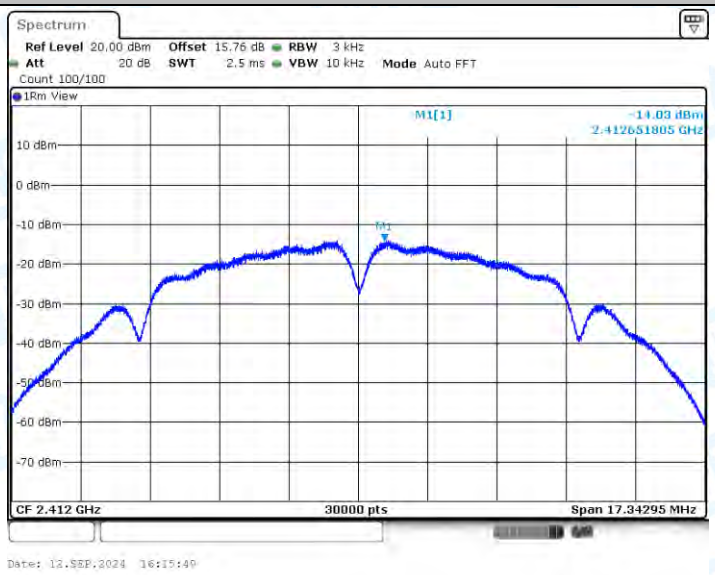
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B-CDD	Ant1	2412	-12.37	≤8.00	PASS
	Ant2	2412	-13.99	≤8.00	PASS
	total	2412	-10.09	≤8.00	PASS
	Ant1	2437	-13.30	≤8.00	PASS
	Ant2	2437	-14.04	≤8.00	PASS
	total	2437	-10.64	≤8.00	PASS
	Ant1	2462	-13.65	≤8.00	PASS
	Ant2	2462	-14.08	≤8.00	PASS
	total	2462	-10.85	≤8.00	PASS
11G-CDD	Ant1	2412	-15.51	≤8.00	PASS
	Ant2	2412	-17.37	≤8.00	PASS
	total	2412	-13.33	≤8.00	PASS
	Ant1	2437	-16.61	≤8.00	PASS
	Ant2	2437	-18.04	≤8.00	PASS
	total	2437	-14.26	≤8.00	PASS
	Ant1	2462	-16.11	≤8.00	PASS
	Ant2	2462	-16.67	≤8.00	PASS
	total	2462	-13.37	≤8.00	PASS
11N20MIMO	Ant1	2412	-19.04	≤8.00	PASS
	Ant2	2412	-20.39	≤8.00	PASS
	total	2412	-16.65	≤8.00	PASS
	Ant1	2437	-19.46	≤8.00	PASS
	Ant2	2437	-20.38	≤8.00	PASS
	total	2437	-16.89	≤8.00	PASS
	Ant1	2462	-20.14	≤8.00	PASS
	Ant2	2462	-20.57	≤8.00	PASS
	total	2462	-17.34	≤8.00	PASS
11AX20MIMO	Ant1	2412	-19.57	≤8.00	PASS
	Ant2	2412	-20.74	≤8.00	PASS
	total	2412	-17.11	≤8.00	PASS
	Ant1	2437	-19.14	≤8.00	PASS
	Ant2	2437	-19.81	≤8.00	PASS
	total	2437	-16.45	≤8.00	PASS
	Ant1	2462	-21.03	≤8.00	PASS
	Ant2	2462	-20.20	≤8.00	PASS
	total	2462	-17.58	≤8.00	PASS

4.2.Test Graphs

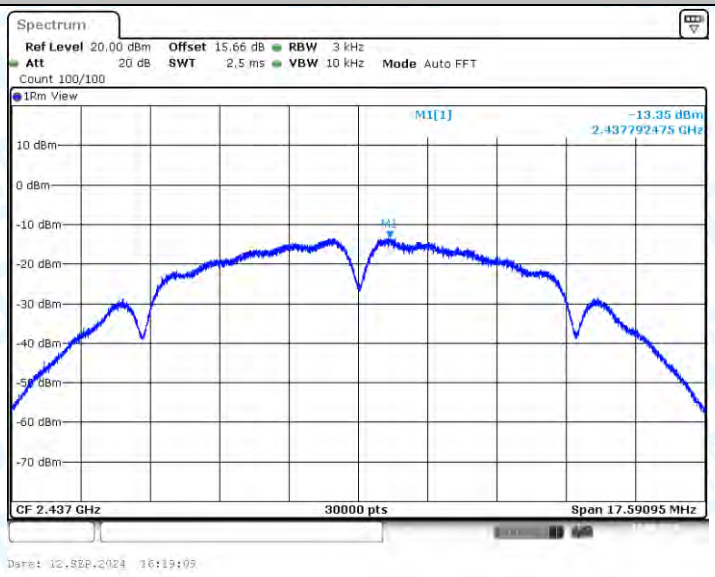
11B-CDD_Ant1_2412



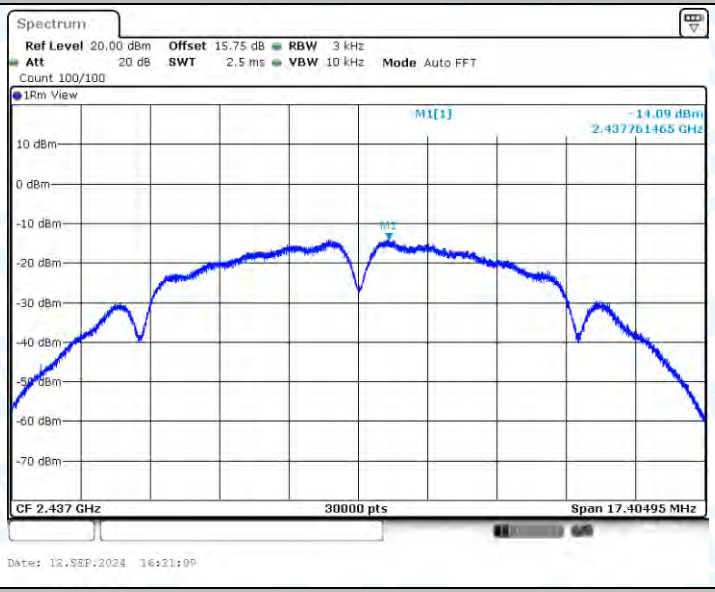
11B-CDD_Ant2_2412



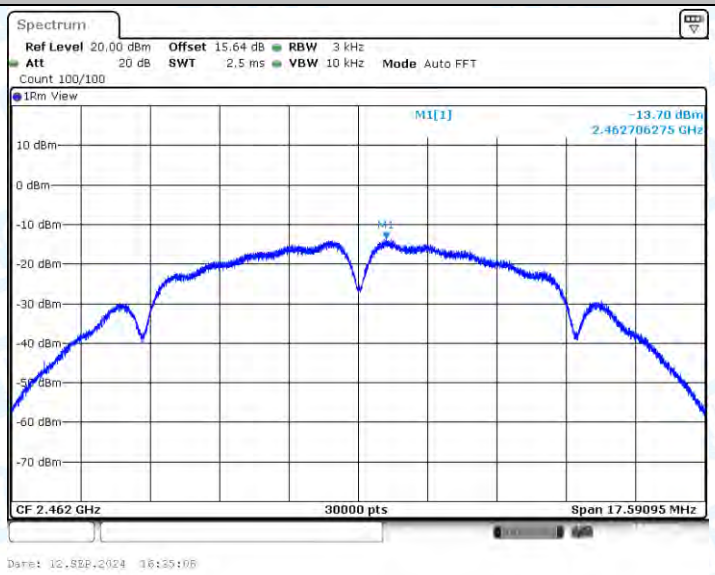
11B-CDD_Ant1_2437



11B-CDD_Ant2_2437



11B-CDD_Ant1_2462



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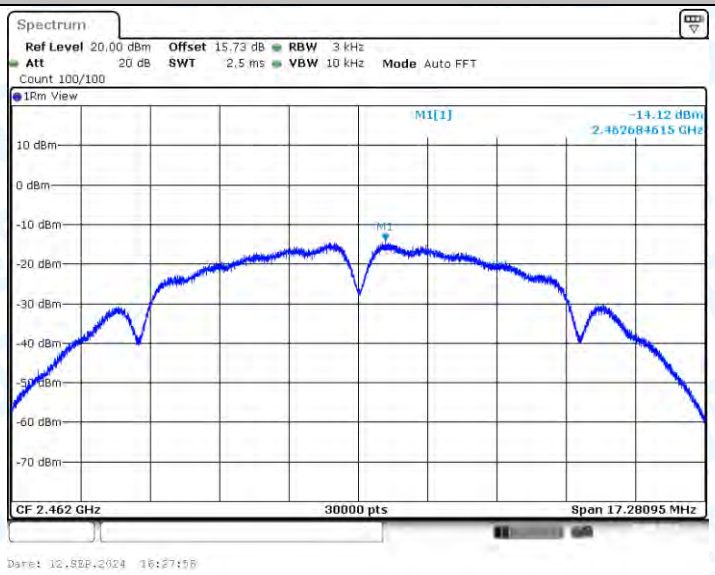
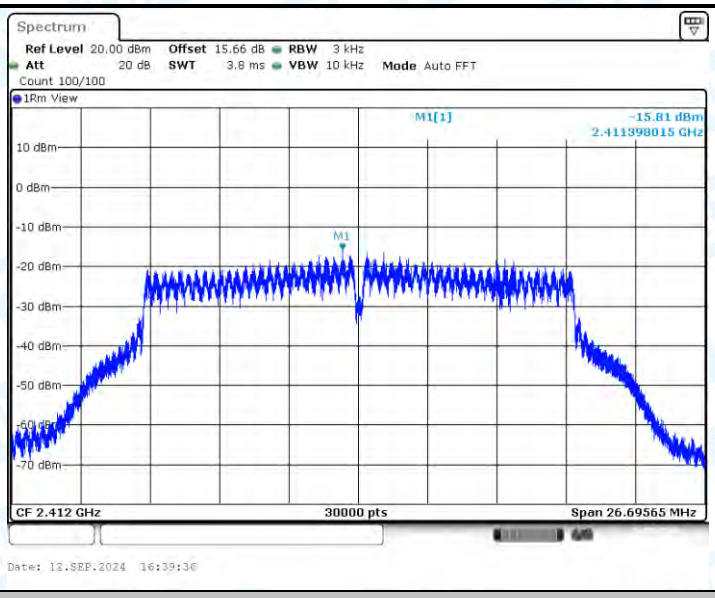
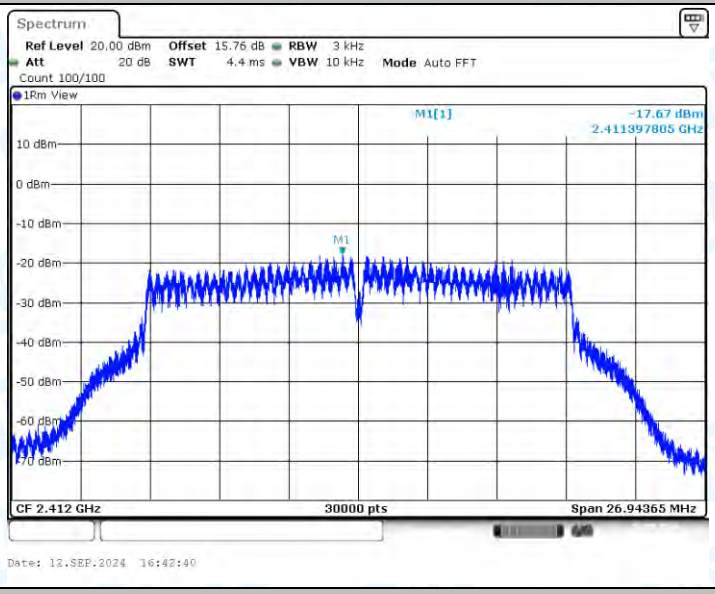


11G-CDD_Ant1_2412



11G-CDD_Ant2_2412



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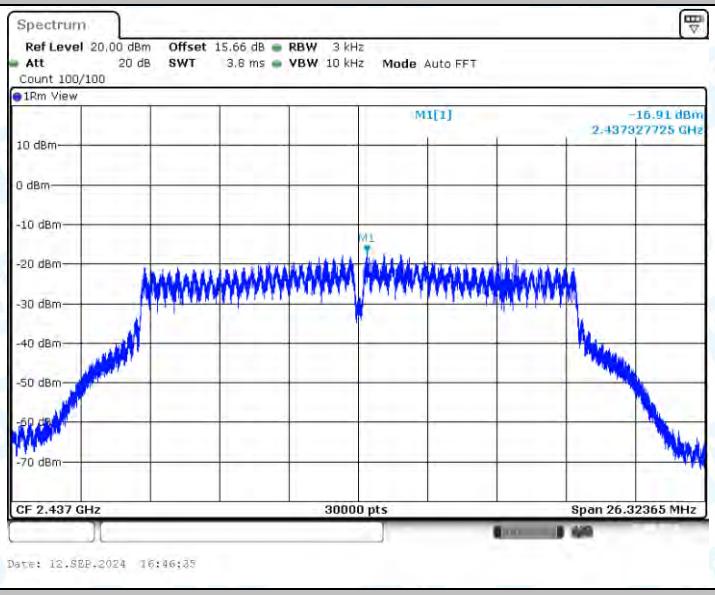

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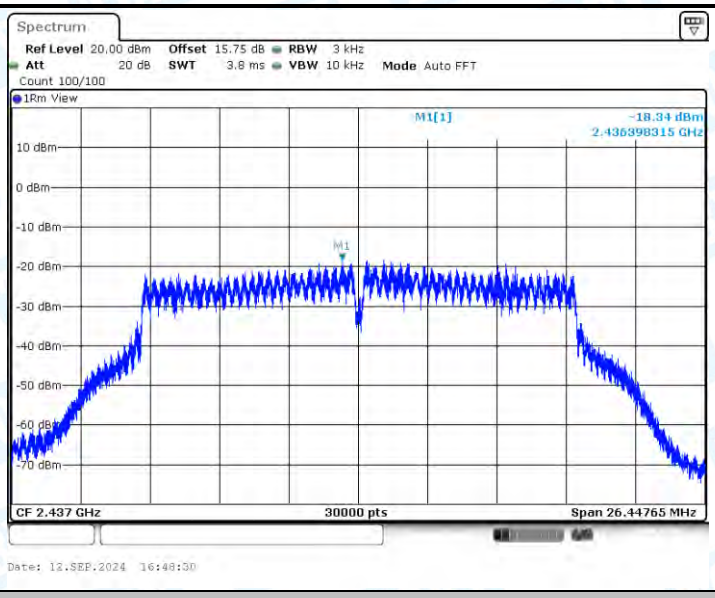
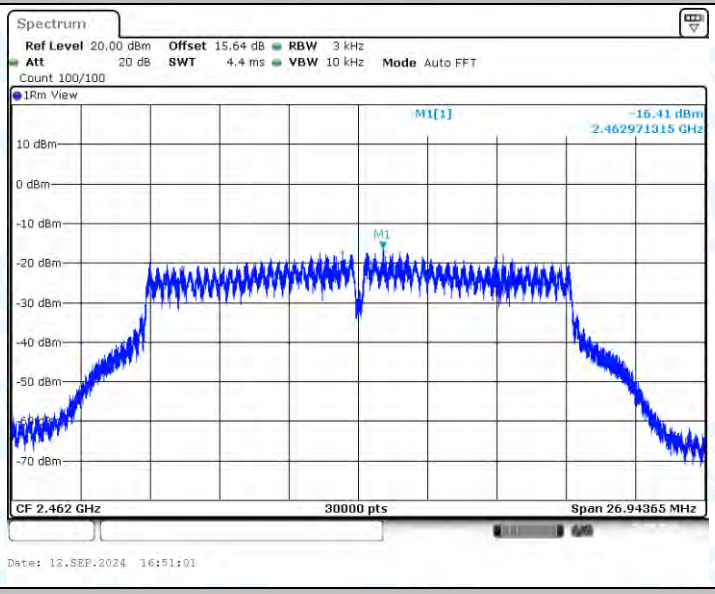
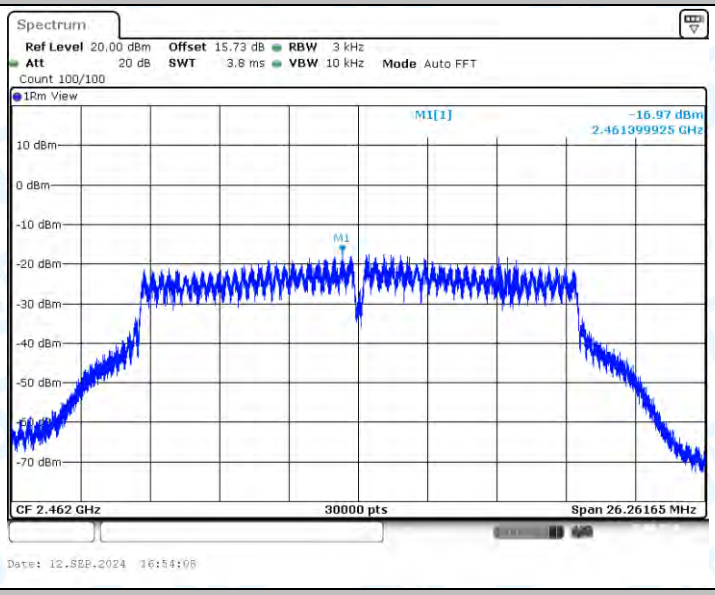


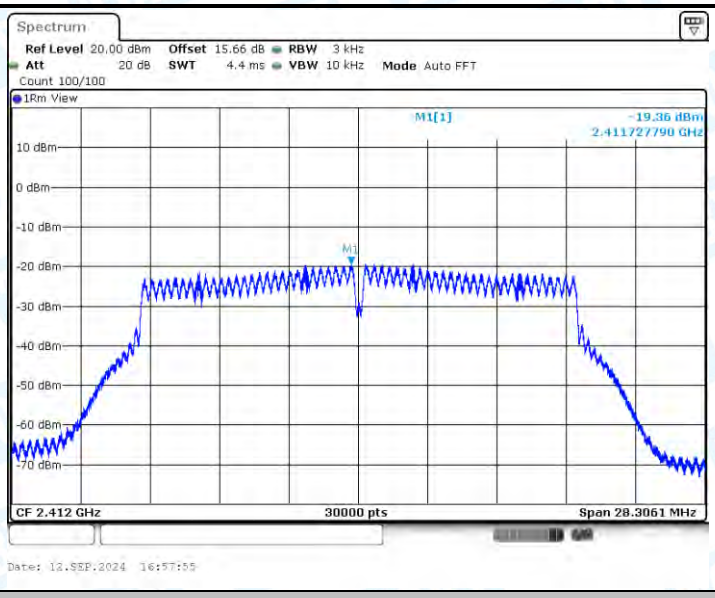
11G-CDD_Ant1_2462



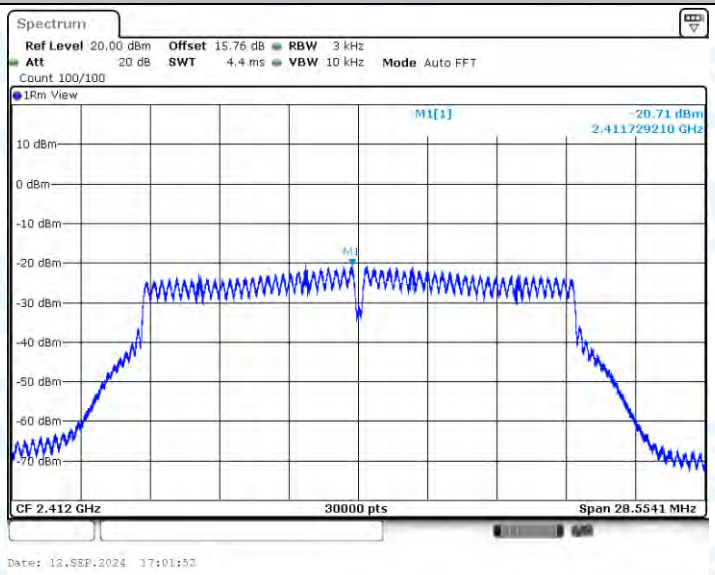
11G-CDD_Ant2_2462



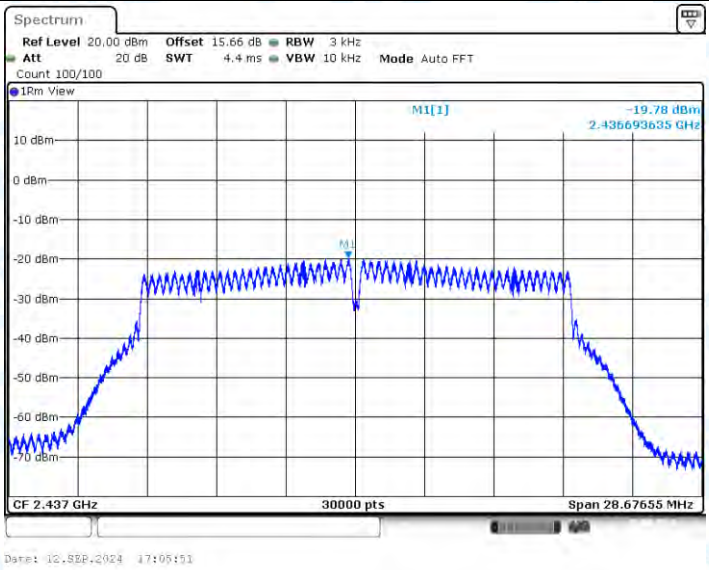
11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2437



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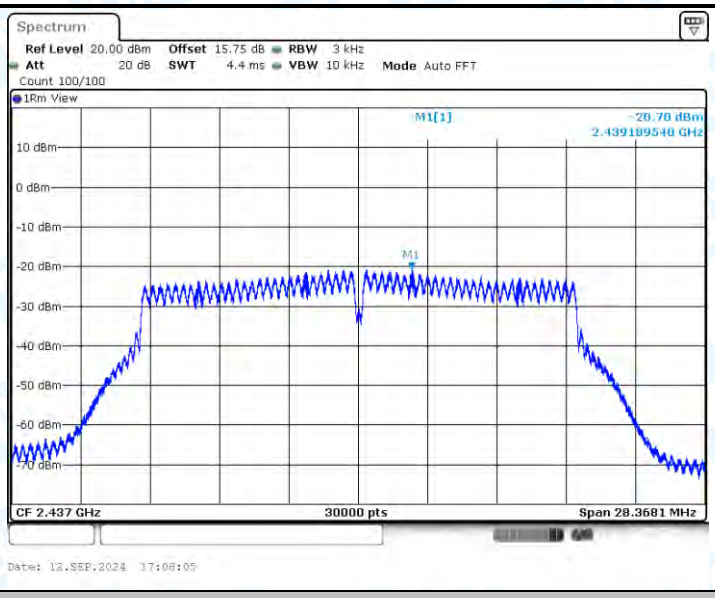
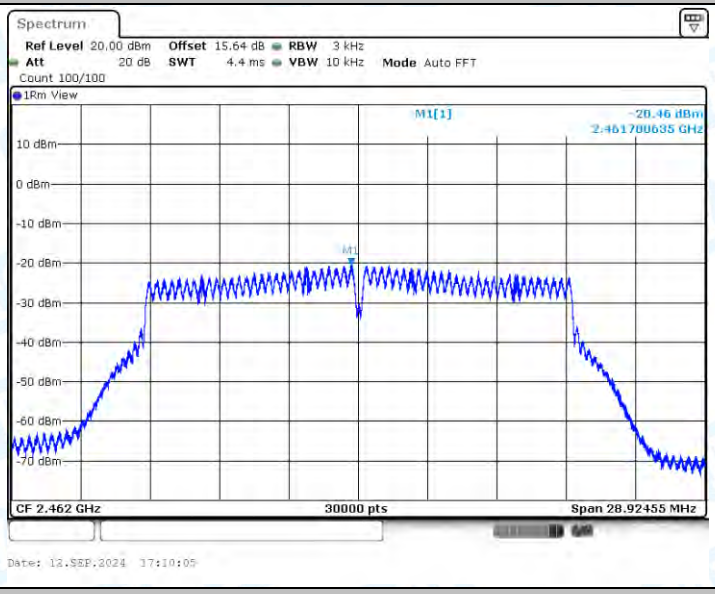


11N20MIMO_Ant1_2462



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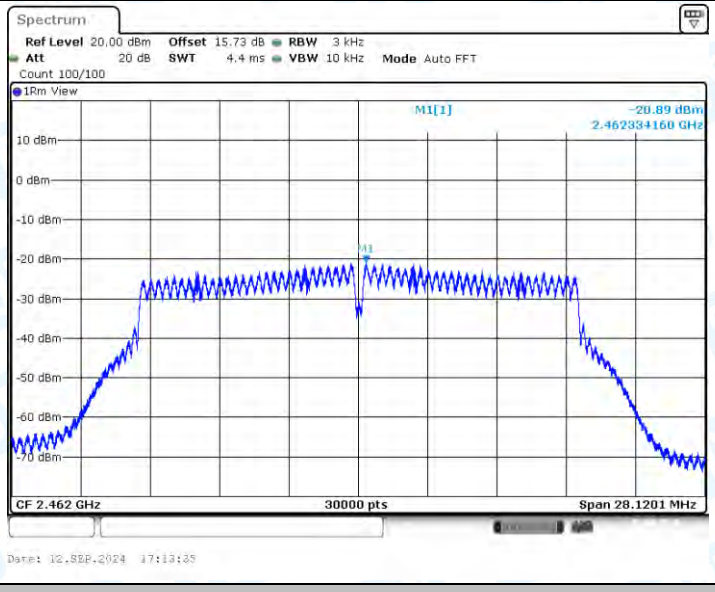
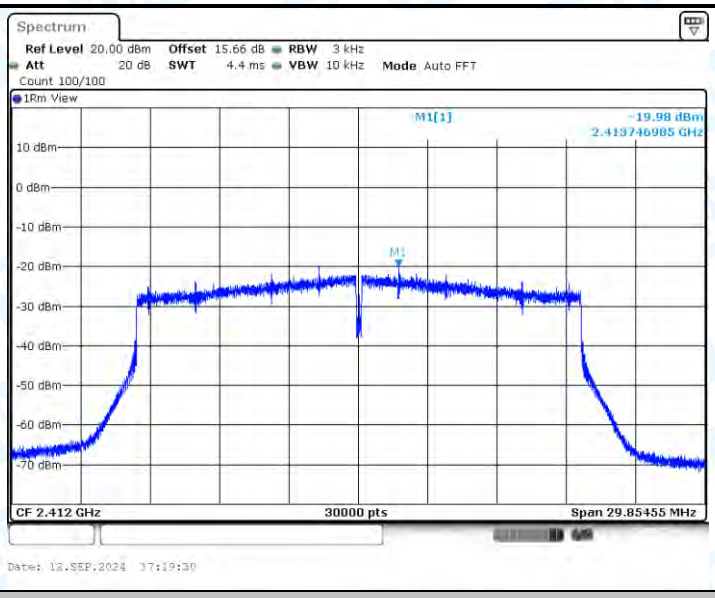
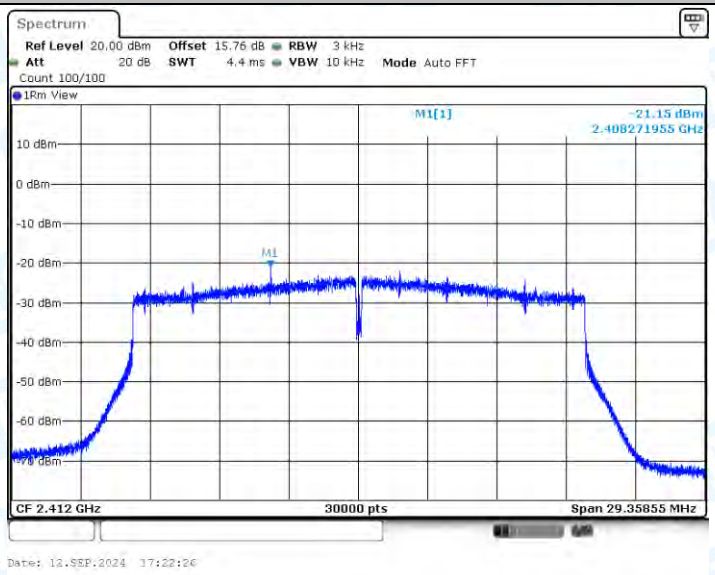


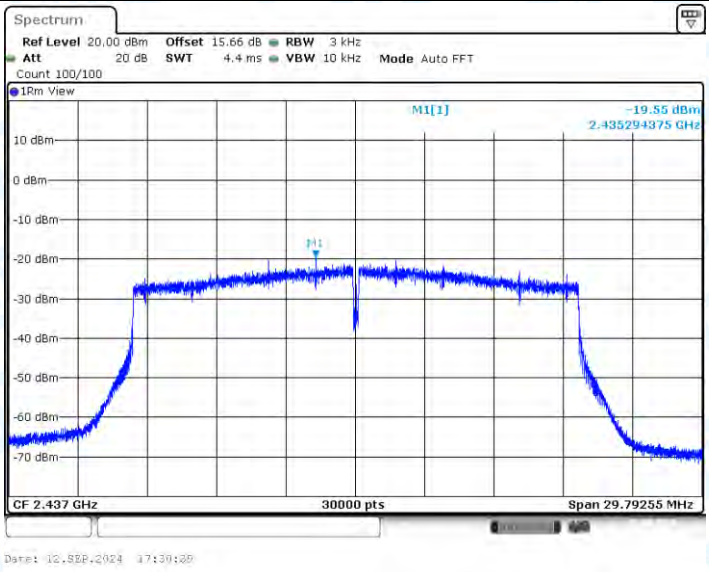
11AX20MIMO_Ant1_2412



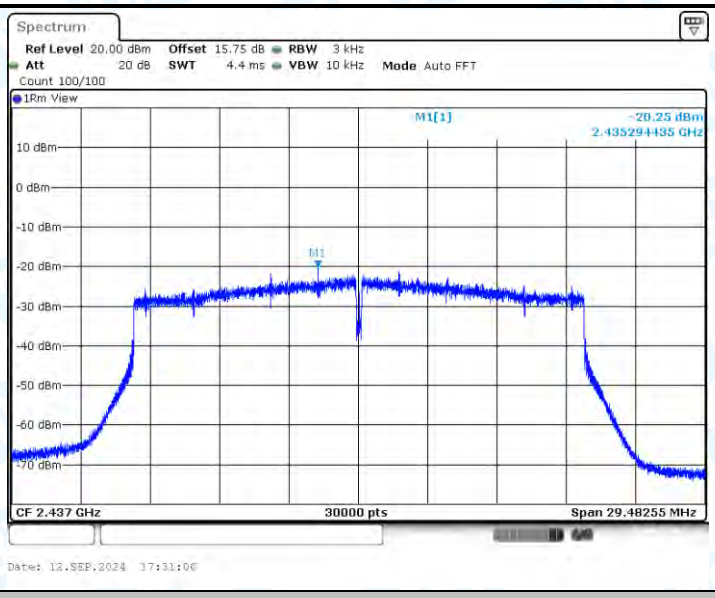
11AX20MIMO_Ant2_2412



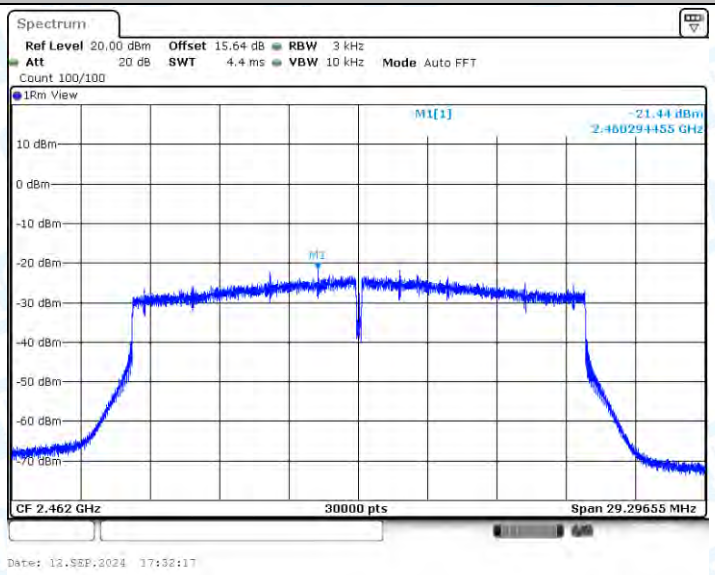
11AX20MIMO_Ant1_2437



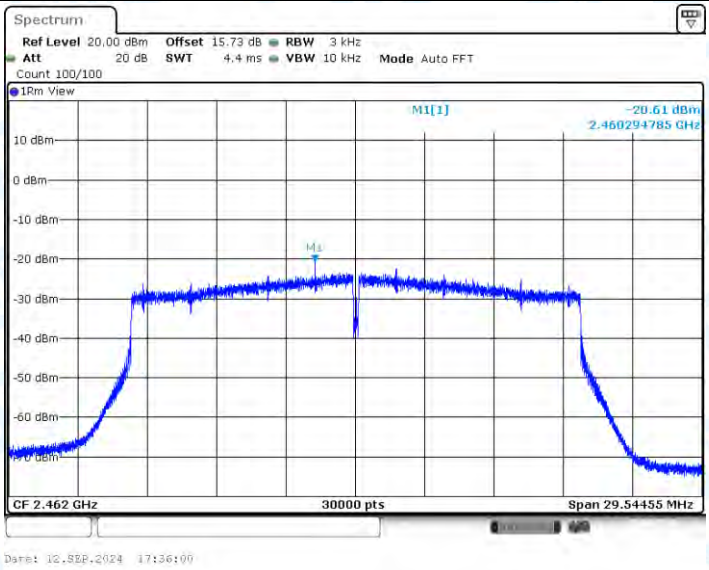
11AX20MIMO_Ant2_2437



11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462



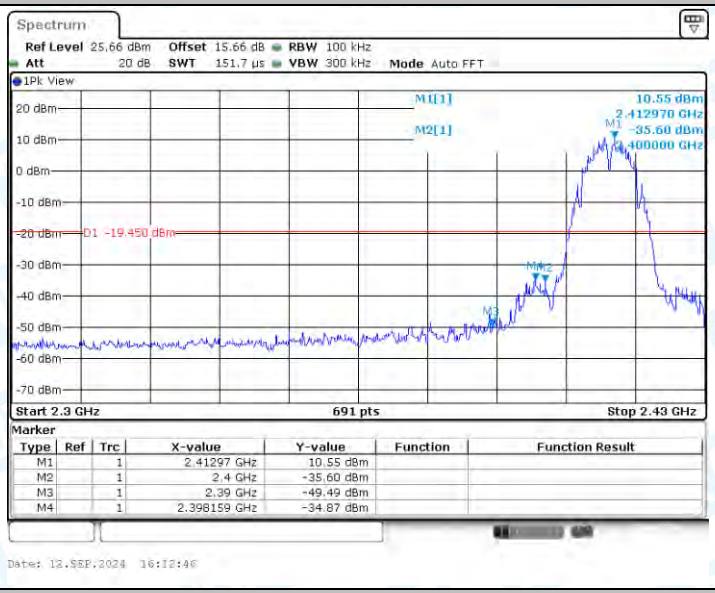
5. Band edge measurements

5.1.Test Result

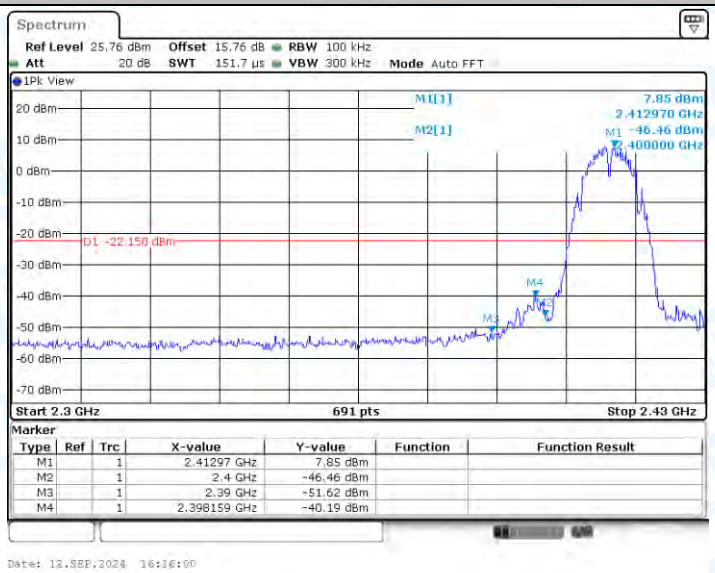
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B-CDD	Ant1	Low	2412	10.55	-34.87	≤-19.45	PASS
	Ant2	Low	2412	7.85	-40.19	≤-22.15	PASS
	Ant1	High	2462	8.85	-49.88	≤-21.15	PASS
	Ant2	High	2462	8.24	-50.11	≤-21.76	PASS
11G-CDD	Ant1	Low	2412	0.98	-34.45	≤-29.02	PASS
	Ant2	Low	2412	1.35	-39.03	≤-28.65	PASS
	Ant1	High	2462	1.54	-41.21	≤-28.46	PASS
	Ant2	High	2462	0.83	-48.45	≤-29.17	PASS
11N20MIMO	Ant1	Low	2412	1.56	-39.04	≤-28.44	PASS
	Ant2	Low	2412	0.21	-39.47	≤-29.79	PASS
	Ant1	High	2462	-0.53	-49.51	≤-30.53	PASS
	Ant2	High	2462	-0.69	-49.68	≤-30.69	PASS
11AX20MIMO	Ant1	Low	2412	2.04	-35.64	≤-27.96	PASS
	Ant2	Low	2412	-0.89	-40.53	≤-30.89	PASS
	Ant1	High	2462	-0.79	-50.47	≤-30.79	PASS
	Ant2	High	2462	-1.07	-50.12	≤-31.07	PASS

5.2.Test Graphs

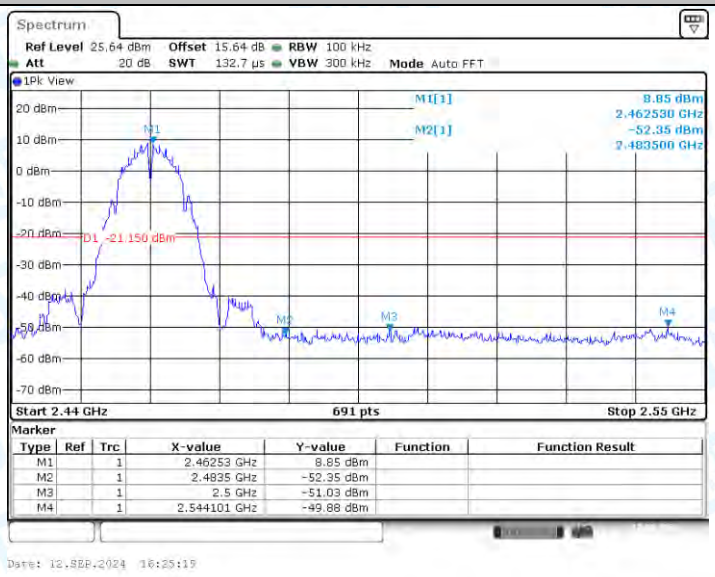
11B-CDD_Ant1_Low_2412



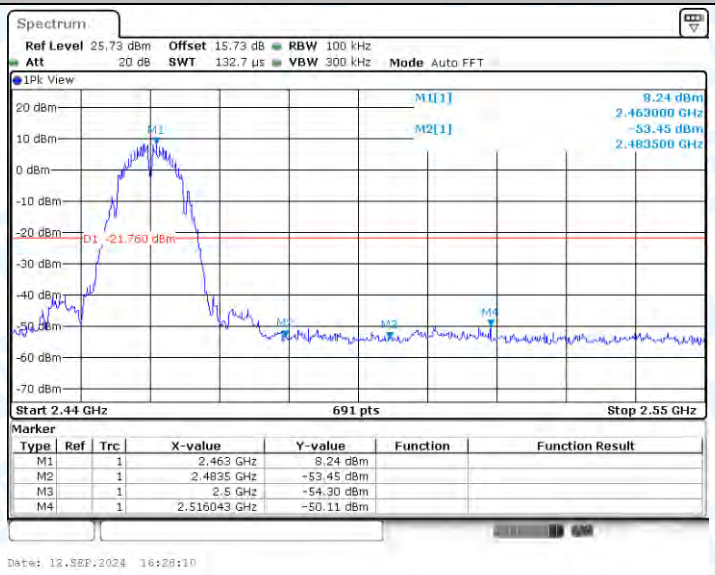
11B-CDD_Ant2_Low_2412



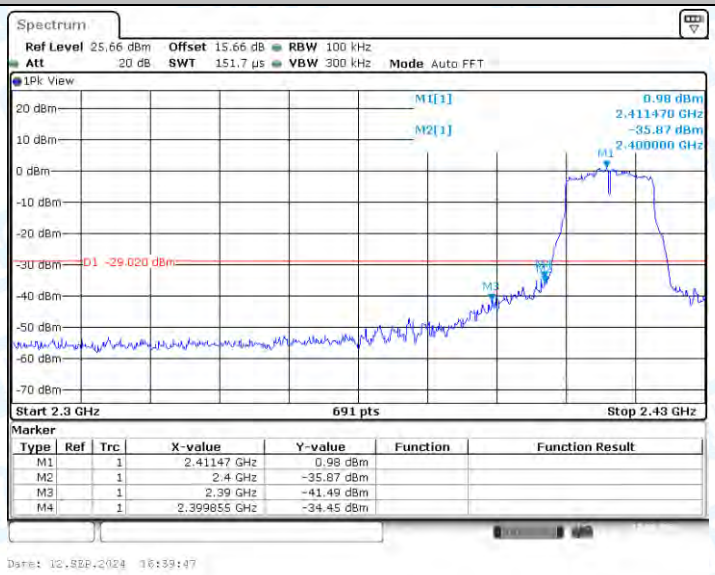
11B-CDD_Ant1_High_2462



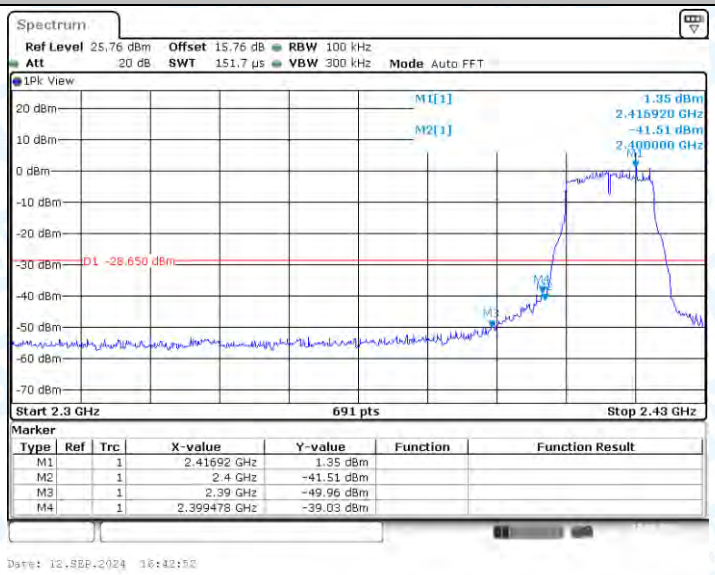
11B-CDD_Ant2_High_2462



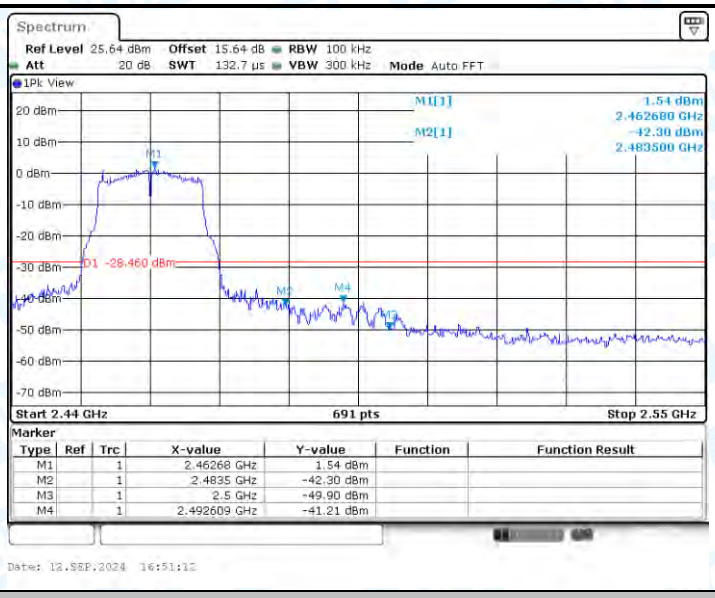
11G-CDD_Ant1_Low_2412



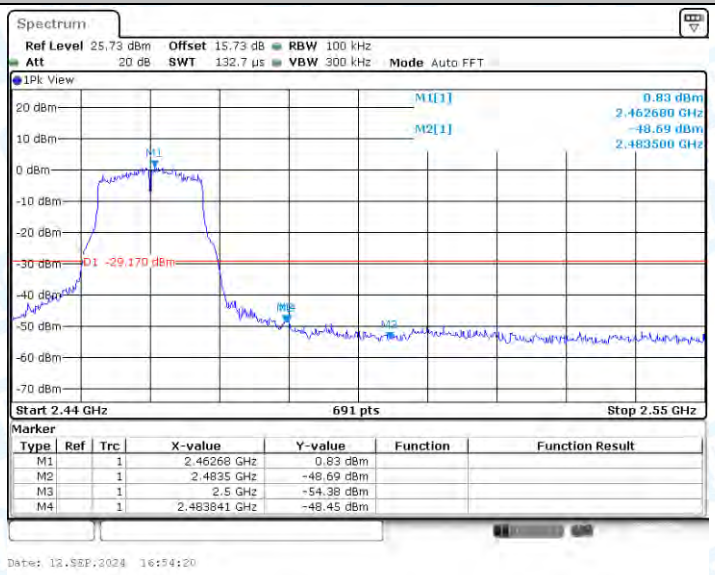
11G-CDD_Ant2_Low_2412



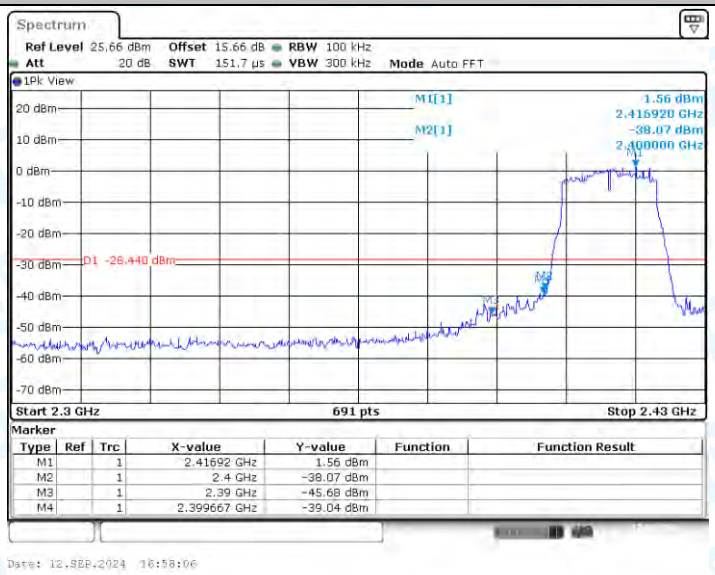
11G-CDD_Ant1_High_2462



11G-CDD_Ant2_High_2462

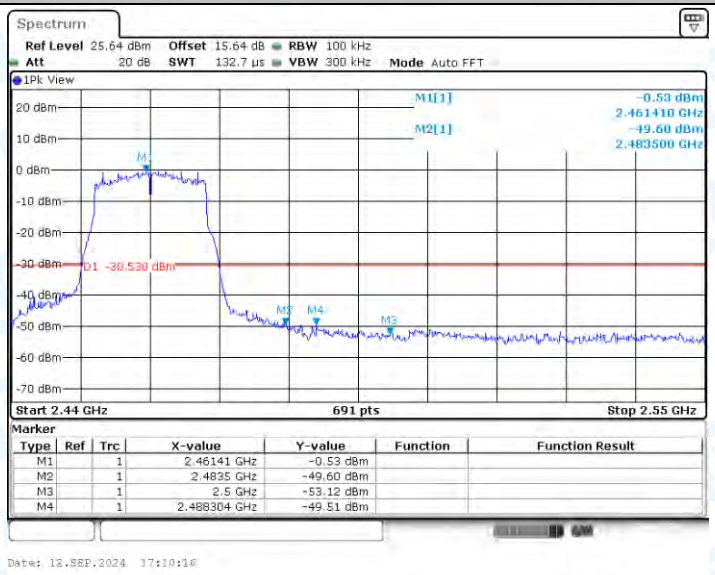


11N20MIMO_Ant1_Low_2412

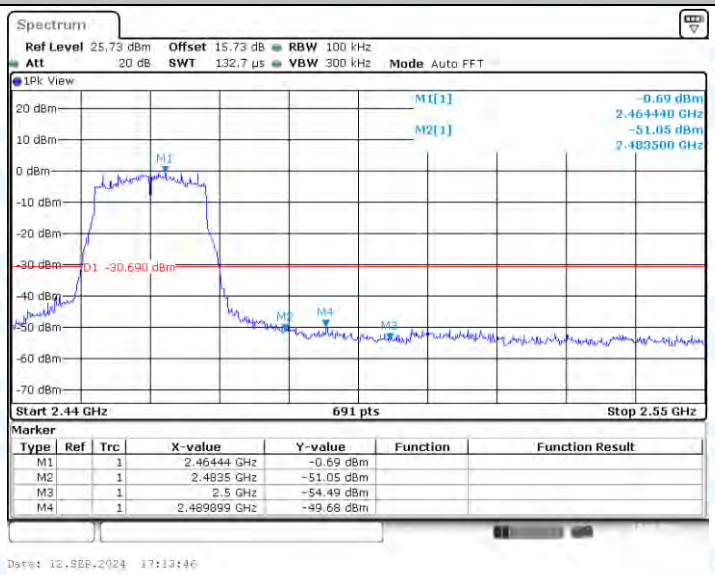


11N20MIMO_Ant2_Low_2412

11N20MIMO_Ant1_High_2462

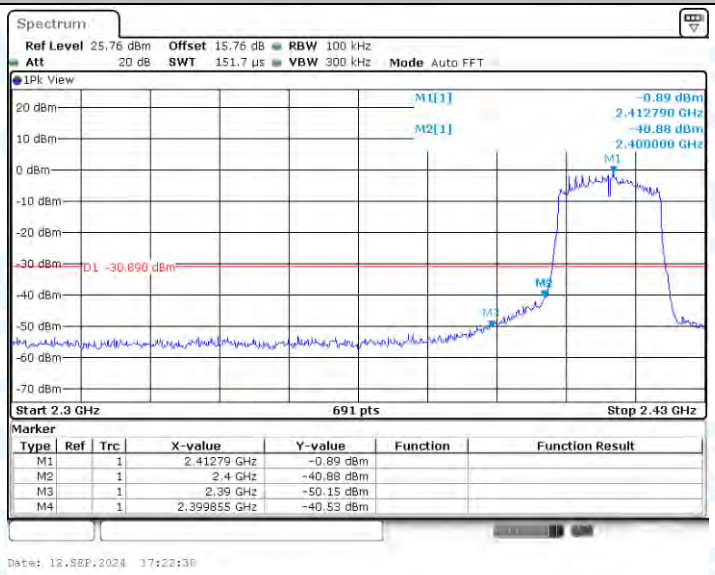


11N20MIMO_Ant2_High_2462

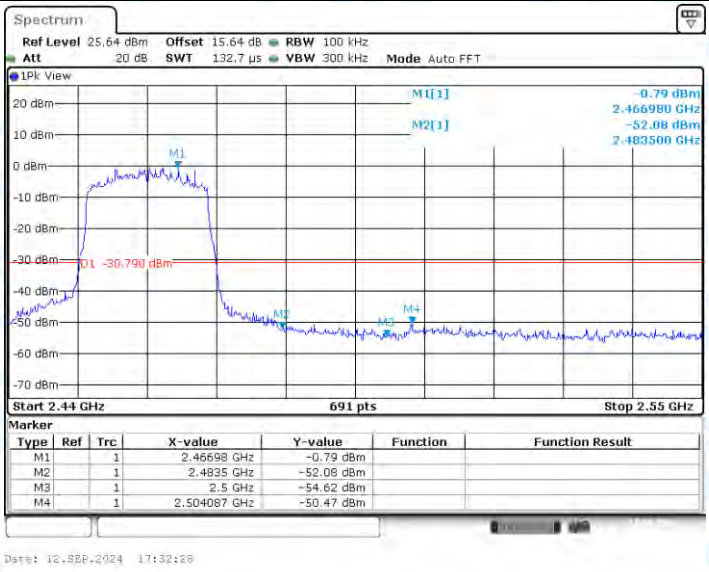


11AX20MIMO_Ant1_Low_2412

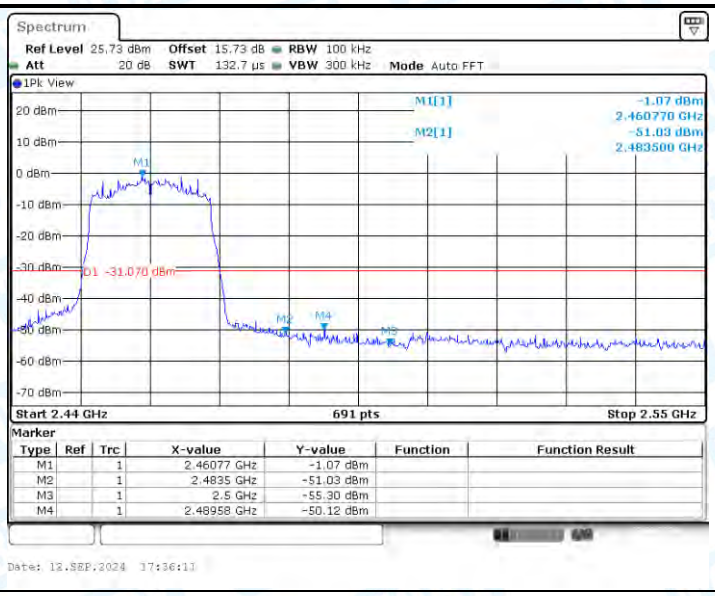
11AX20MIMO_Ant2_Low_2412



11AX20MIMO_Ant1_High_2462



11AX20MIMO_Ant2_High_2462


Spectrum
Ref Level 25.73 dBm Offset 15.73 dB RBW 100 kHz
Att 20 dB SWT 132.7 µs VBW 300 kHz Mode Auto FFT
1Pk View
M1[1] -1.07 dBm 2.460770 GHz
M2[1] -51.03 dBm 2.483500 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
D1 -31.070 dBm
M1
M2
M4
M3
Start 2.44 GHz
691 pts
Stop 2.55 GHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.46077 GHz -1.07 dBm
M2 1 2.4835 GHz -51.03 dBm
M3 1 2.5 GHz -55.30 dBm
M4 1 2.48958 GHz -50.12 dBm
Date: 12.SEP.2024 17:36:11

6. Conducted Spurious Emission

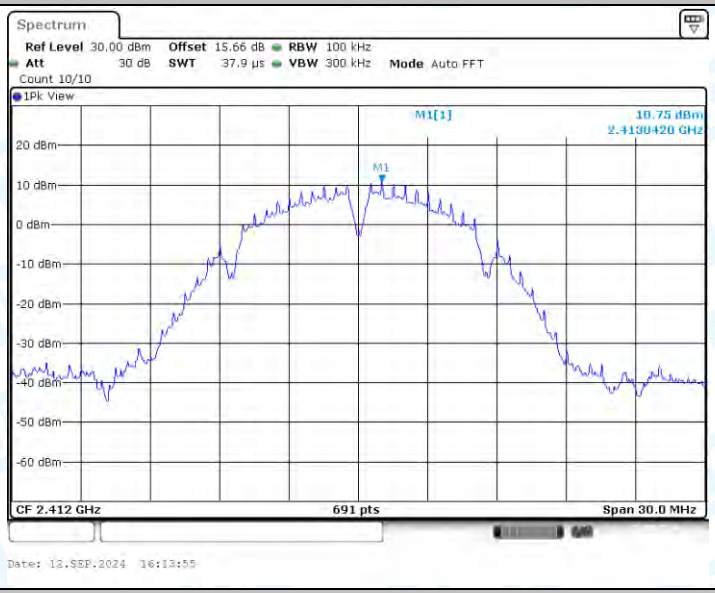
6.1.Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B-CDD	Ant1	2412	Reference	10.75	10.75	---	PASS
			30~1000	10.75	-51.02	≤-19.25	PASS
			1000~26500	10.75	-45.32	≤-19.25	PASS
	Ant2	2412	Reference	8.45	8.45	---	PASS
			30~1000	8.45	-50.64	≤-21.55	PASS
			1000~26500	8.45	-44.81	≤-21.55	PASS
	Ant1	2437	Reference	9.78	9.78	---	PASS
			30~1000	9.78	-50.3	≤-20.22	PASS
			1000~26500	9.78	-45.3	≤-20.22	PASS
	Ant2	2437	Reference	9.19	9.19	---	PASS
			30~1000	9.19	-48.93	≤-20.81	PASS
			1000~26500	9.19	-44.59	≤-20.81	PASS
	Ant1	2462	Reference	9.02	9.02	---	PASS
			30~1000	9.02	-51.17	≤-20.98	PASS
			1000~26500	9.02	-45.22	≤-20.98	PASS
	Ant2	2462	Reference	8.36	8.36	---	PASS
			30~1000	8.36	-50.32	≤-21.64	PASS
			1000~26500	8.36	-44.81	≤-21.64	PASS
11G-CDD	Ant1	2412	Reference	1.96	1.96	---	PASS
			30~1000	1.96	-51.36	≤-28.04	PASS
			1000~26500	1.96	-44.82	≤-28.04	PASS
	Ant2	2412	Reference	0.87	0.87	---	PASS
			30~1000	0.87	-49.82	≤-29.13	PASS
			1000~26500	0.87	-44.75	≤-29.13	PASS
	Ant1	2437	Reference	1.63	1.63	---	PASS
			30~1000	1.63	-51.26	≤-28.37	PASS
			1000~26500	1.63	-45.56	≤-28.37	PASS
	Ant2	2437	Reference	0.94	0.94	---	PASS
			30~1000	0.94	-51.1	≤-29.06	PASS
			1000~26500	0.94	-45.57	≤-29.06	PASS
	Ant1	2462	Reference	1.35	1.35	---	PASS
			30~1000	1.35	-50.76	≤-28.65	PASS
			1000~26500	1.35	-44.96	≤-28.65	PASS
	Ant2	2462	Reference	2.11	2.11	---	PASS
			30~1000	2.11	-51.22	≤-27.89	PASS
			1000~26500	2.11	-45.31	≤-27.89	PASS
11N20MIMO	Ant1	2412	Reference	1.76	1.76	---	PASS
			30~1000	1.76	-50.41	≤-28.24	PASS
			1000~26500	1.76	-45.5	≤-28.24	PASS
	Ant2	2412	Reference	0.73	0.73	---	PASS

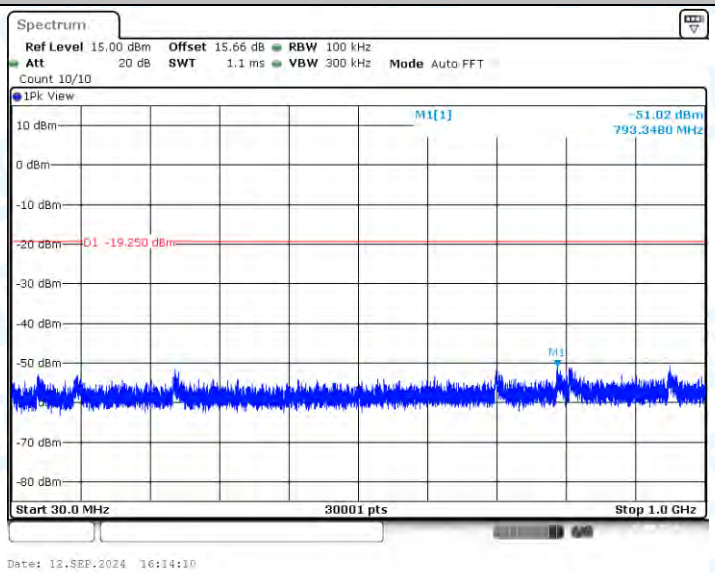
			30~1000	0.73	-51.28	≤-29.27	PASS
			1000~26500	0.73	-45.53	≤-29.27	PASS
	Ant1	2437	Reference	1.18	1.18	---	PASS
			30~1000	1.18	-51.03	≤-28.82	PASS
			1000~26500	1.18	-44.87	≤-28.82	PASS
	Ant2	2437	Reference	0.67	0.67	---	PASS
			30~1000	0.67	-51.11	≤-29.33	PASS
			1000~26500	0.67	-45.33	≤-29.33	PASS
	Ant1	2462	Reference	0.96	0.96	---	PASS
			30~1000	0.96	-49.81	≤-29.04	PASS
			1000~26500	0.96	-45.84	≤-29.04	PASS
	Ant2	2462	Reference	0.29	0.29	---	PASS
			30~1000	0.29	-51.69	≤-29.71	PASS
			1000~26500	0.29	-45.45	≤-29.71	PASS
11AX20MIMO	Ant1	2412	Reference	0.05	0.05	---	PASS
			30~1000	0.05	-49.53	≤-29.95	PASS
			1000~26500	0.05	-45.63	≤-29.95	PASS
	Ant2	2412	Reference	-0.46	-0.46	---	PASS
			30~1000	-0.46	-50.99	≤-30.46	PASS
			1000~26500	-0.46	-44.92	≤-30.46	PASS
	Ant1	2437	Reference	1.54	1.54	---	PASS
			30~1000	1.54	-50.63	≤-28.46	PASS
			1000~26500	1.54	-45.65	≤-28.46	PASS
	Ant2	2437	Reference	1.25	1.25	---	PASS
			30~1000	1.25	-50.02	≤-28.75	PASS
			1000~26500	1.25	-45.2	≤-28.75	PASS
	Ant1	2462	Reference	-0.33	-0.33	---	PASS
			30~1000	-0.33	-50.28	≤-30.33	PASS
			1000~26500	-0.33	-44.32	≤-30.33	PASS
	Ant2	2462	Reference	-1.56	-1.56	---	PASS
			30~1000	-1.56	-50.9	≤-31.56	PASS
			1000~26500	-1.56	-45.46	≤-31.56	PASS

6.2.Test Graphs

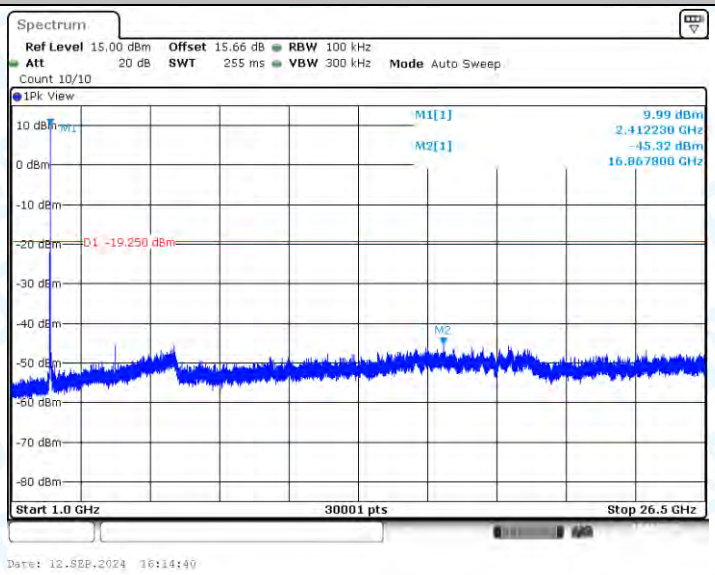
11B-CDD_Ant1_2412_0~Reference



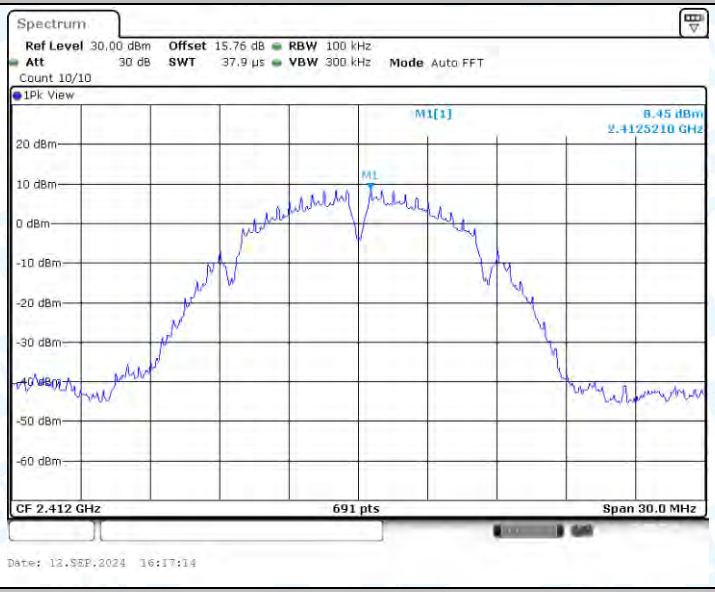
11B-CDD_Ant1_2412_30~1000



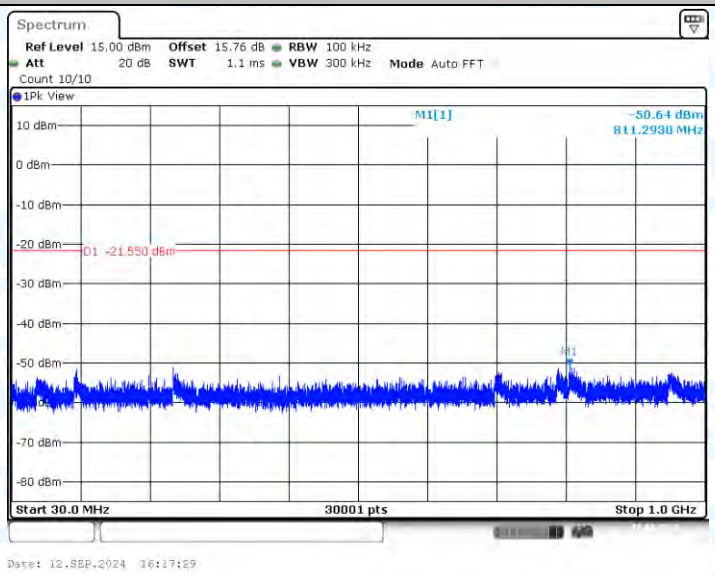
11B-CDD_Ant1_2412_1000~26500



11B-CDD_Ant2_2412_0~Reference



11B-CDD_Ant2_2412_30~1000



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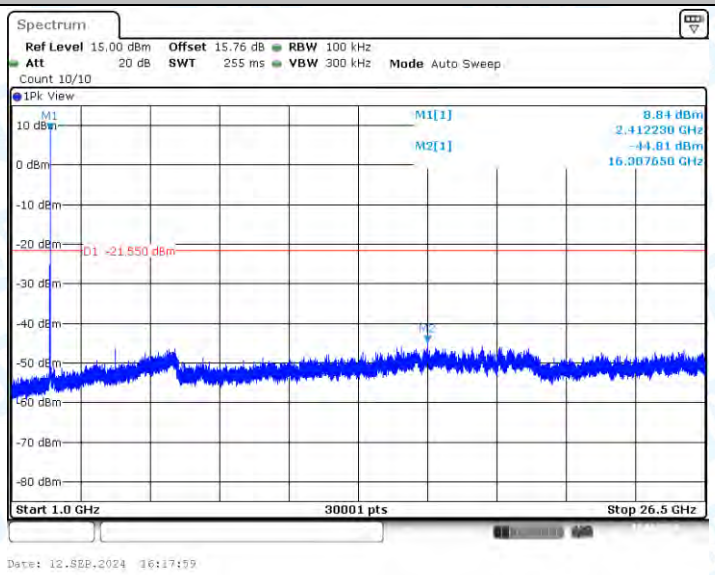
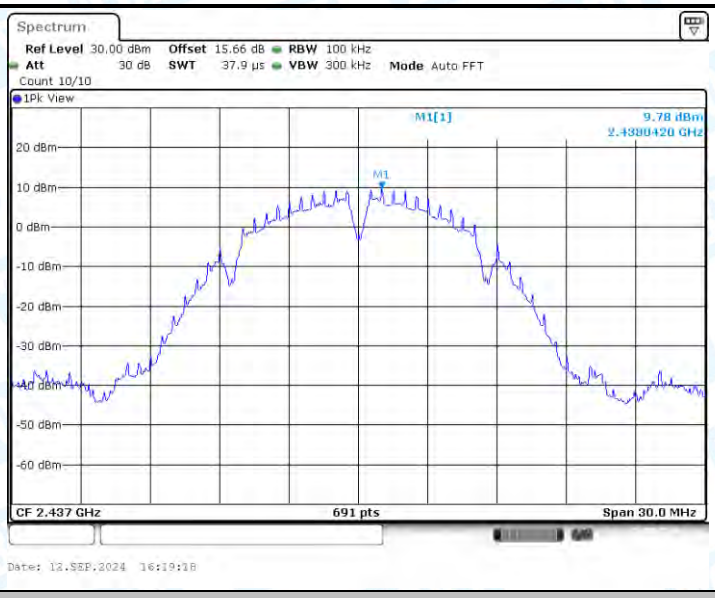


11B-CDD_Ant1_2437_0~Reference



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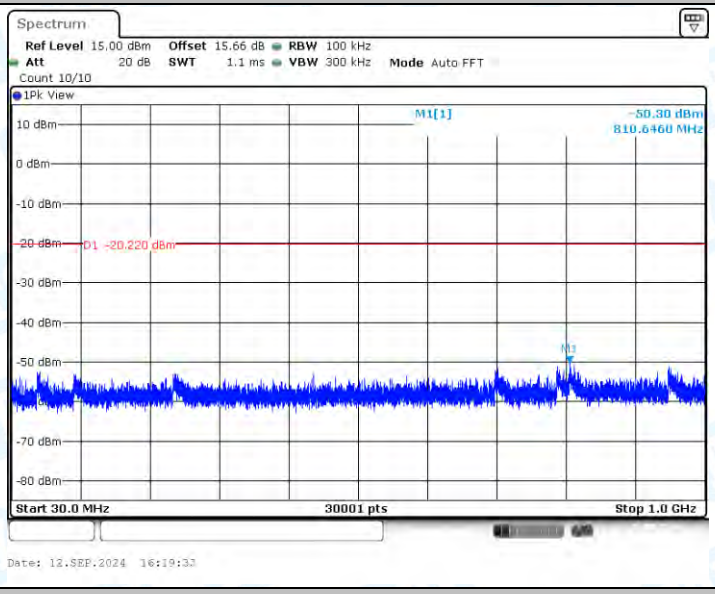

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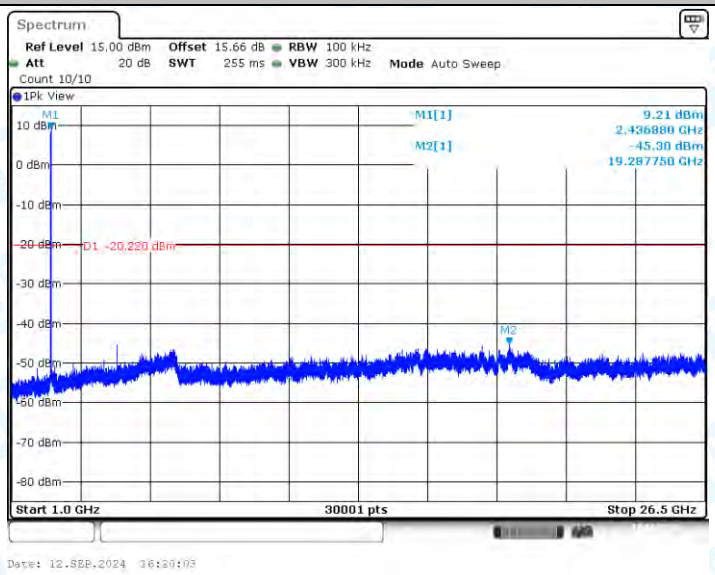

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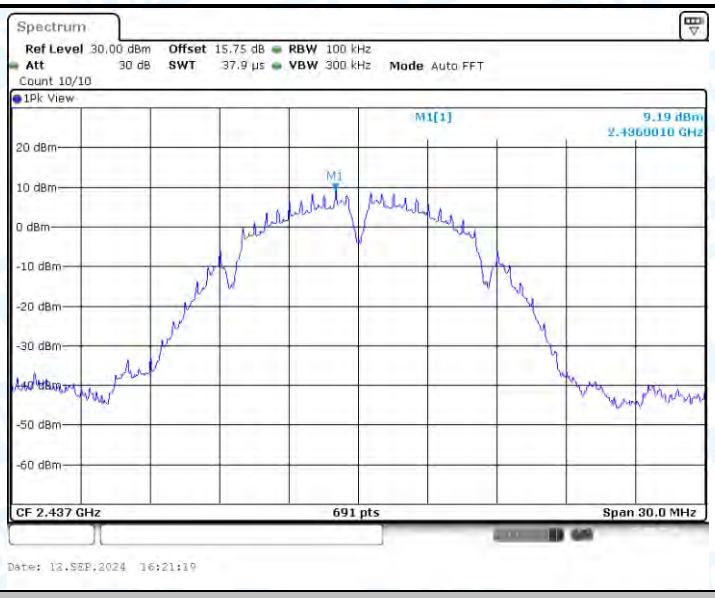
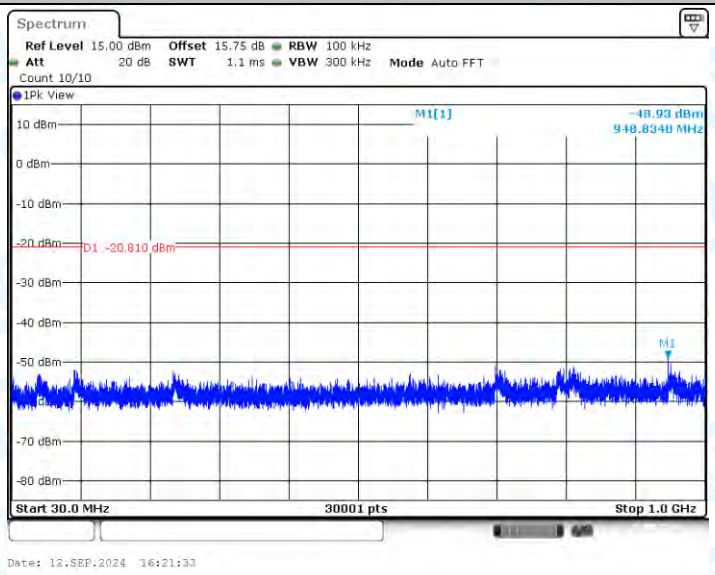
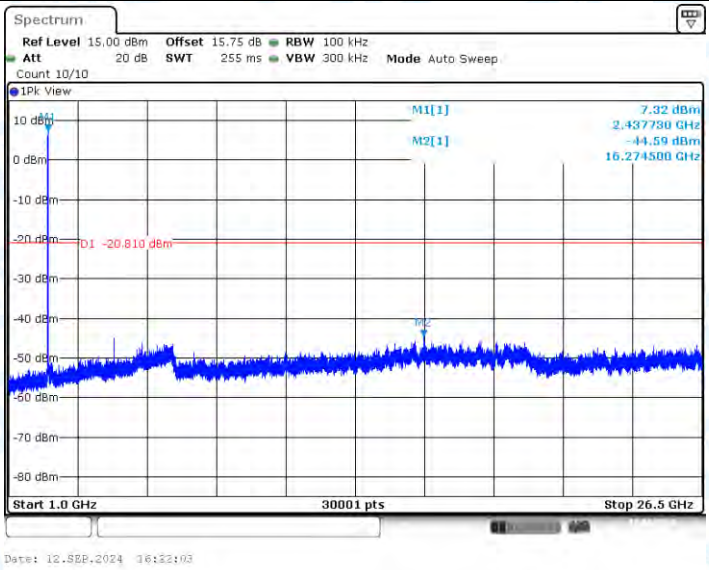


11B-CDD_Ant2_2437_30~1000



11B-CDD_Ant2_2437_1000~26500



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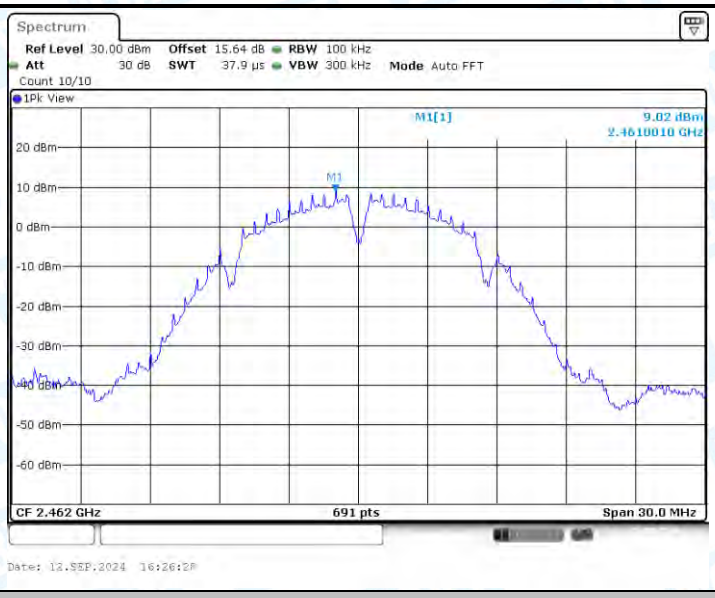

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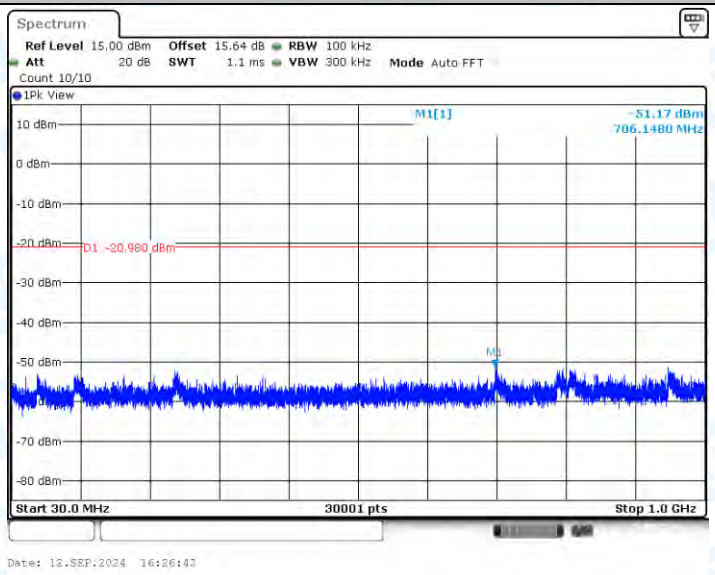
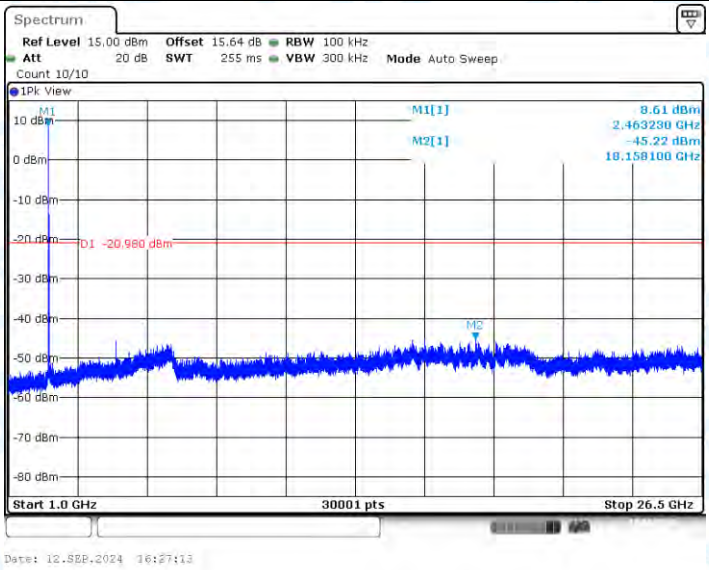
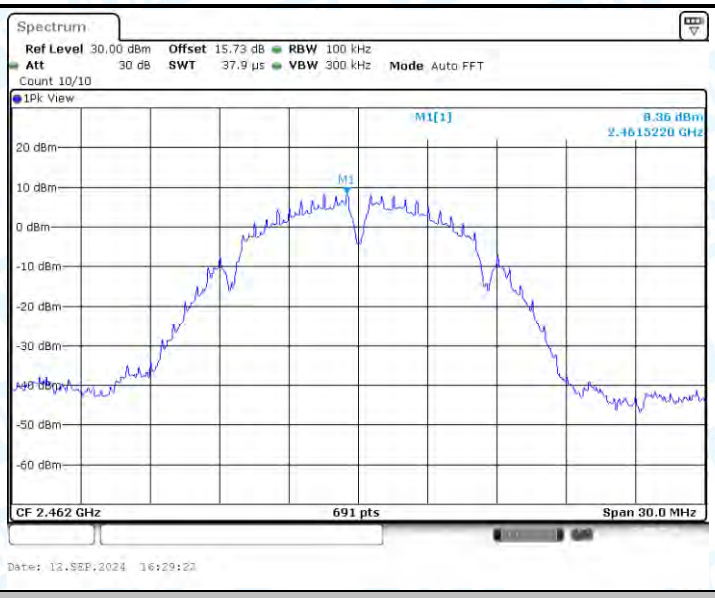


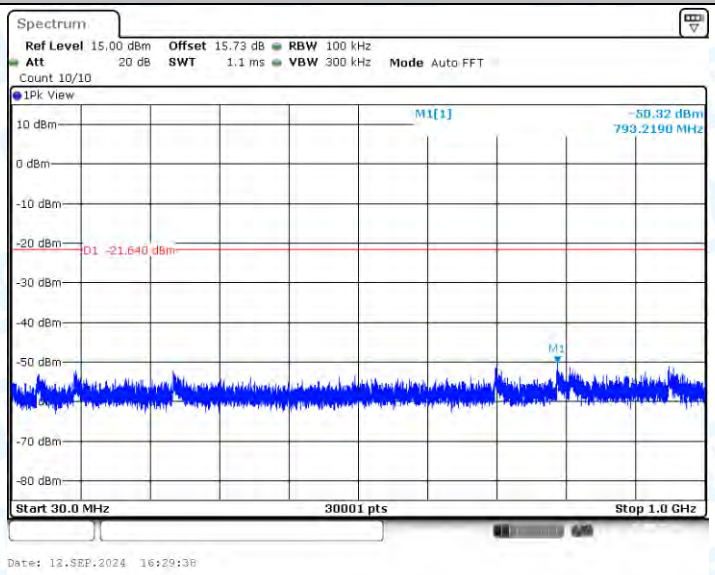
11B-CDD_Ant1_2462_1000~26500



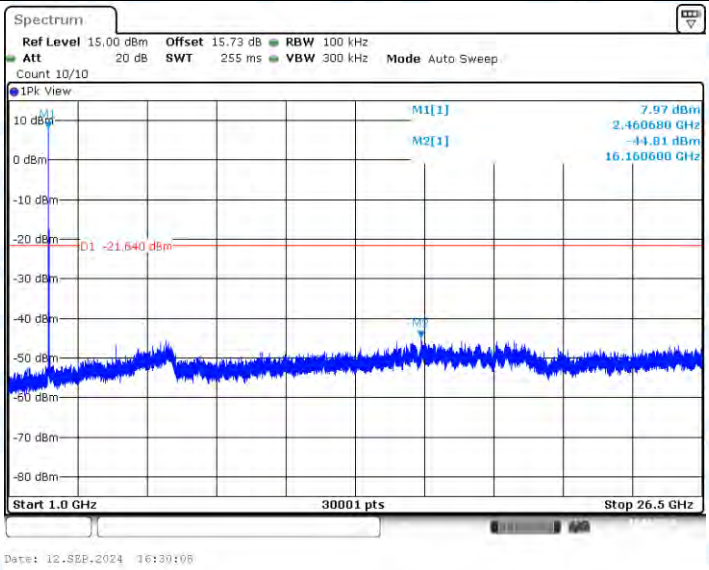
11B-CDD_Ant2_2462_0~Reference



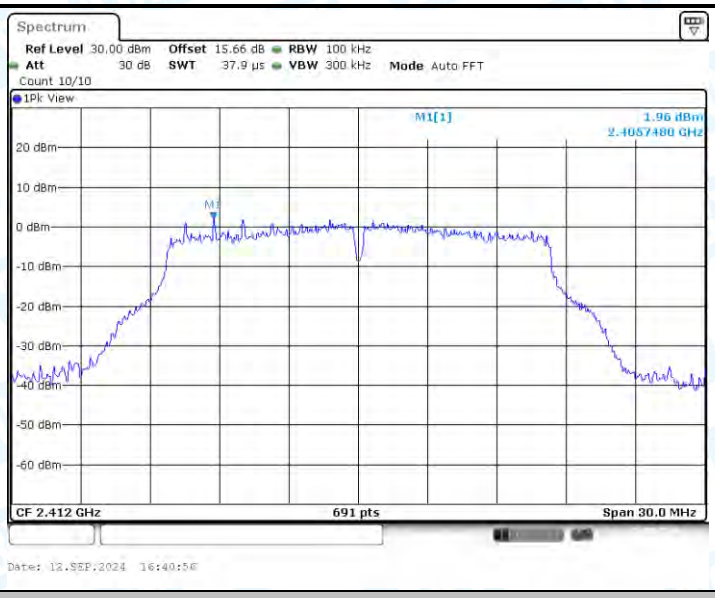
11B-CDD_Ant2_2462_30~1000



11B-CDD_Ant2_2462_1000~26500



11G-CDD_Ant1_2412_0~Reference



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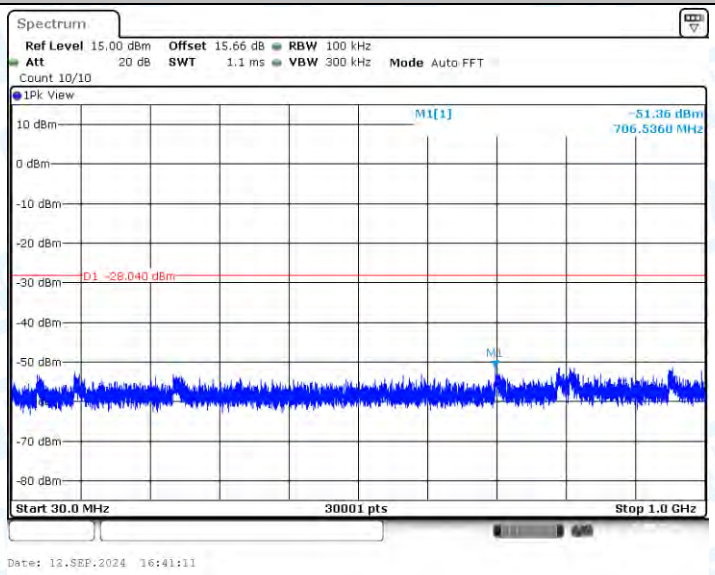
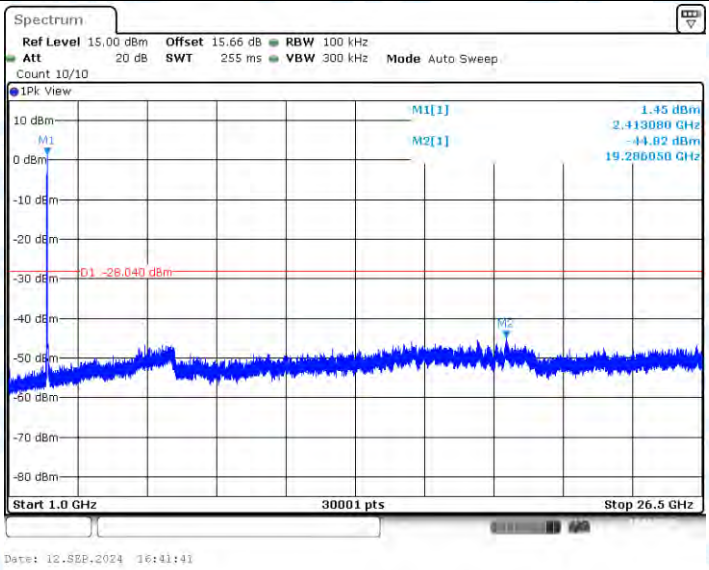
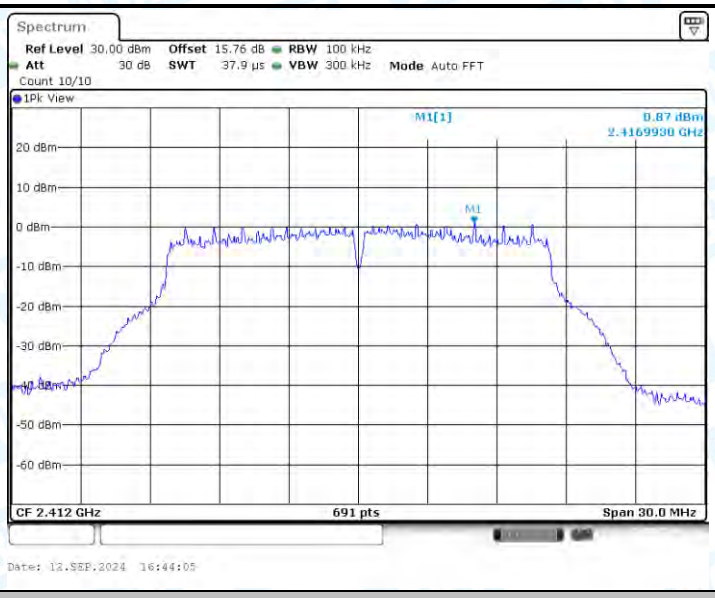


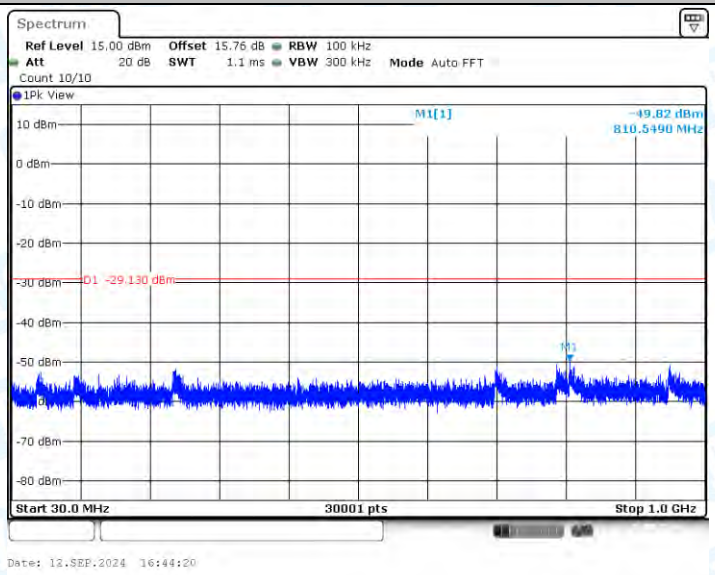
11G-CDD_Ant1_2412_1000~26500



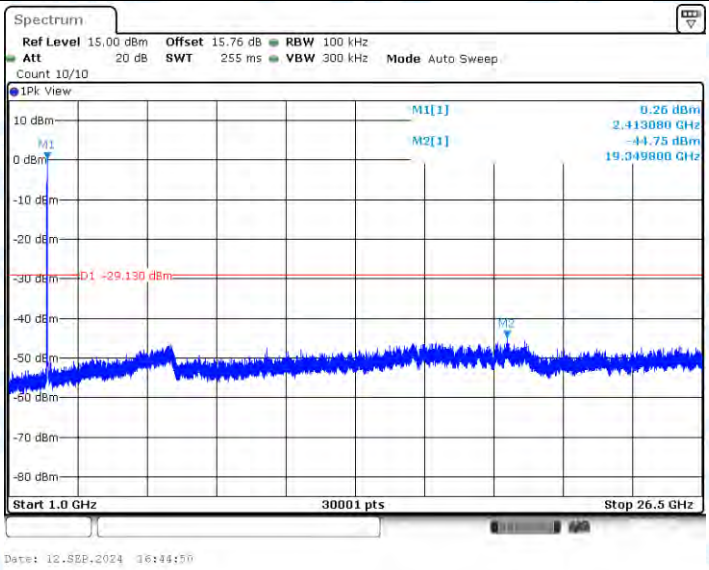
11G-CDD_Ant2_2412_0~Reference



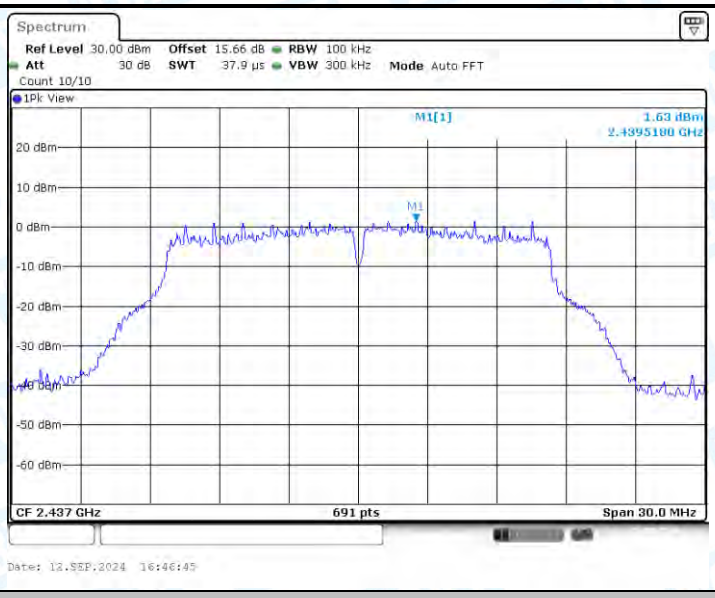
11G-CDD_Ant2_2412_30~1000



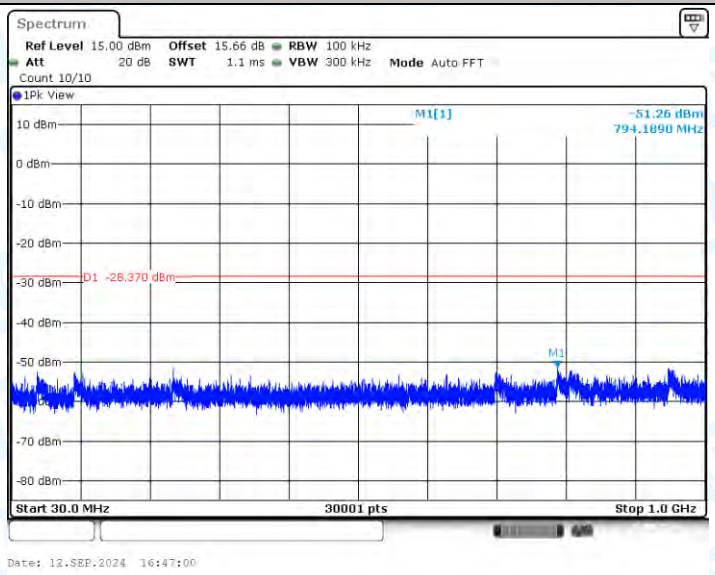
11G-CDD_Ant2_2412_1000~26500



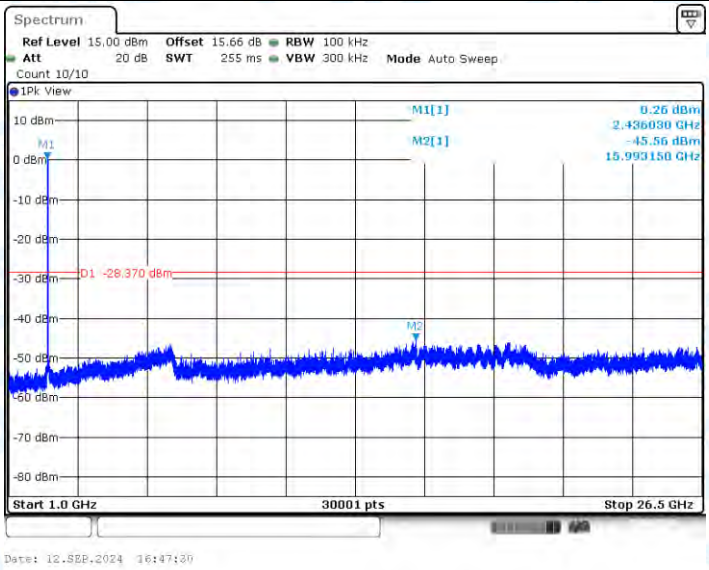
11G-CDD_Ant1_2437_0~Reference



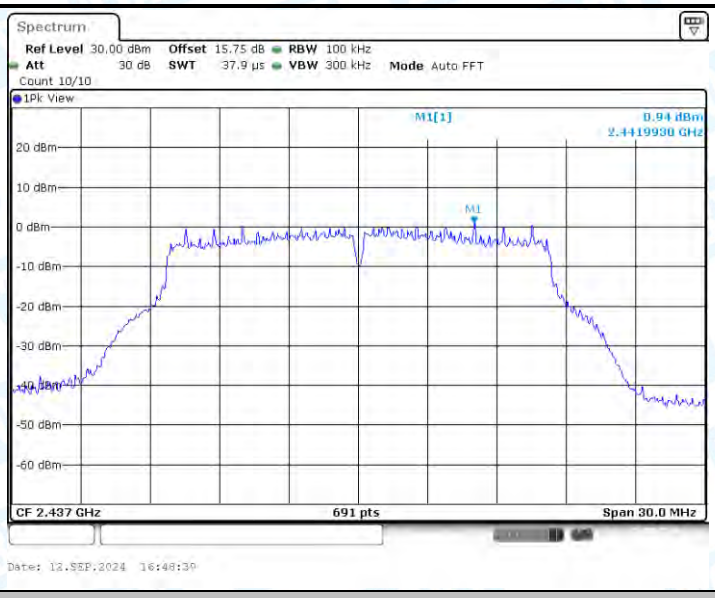
11G-CDD_Ant1_2437_30~1000



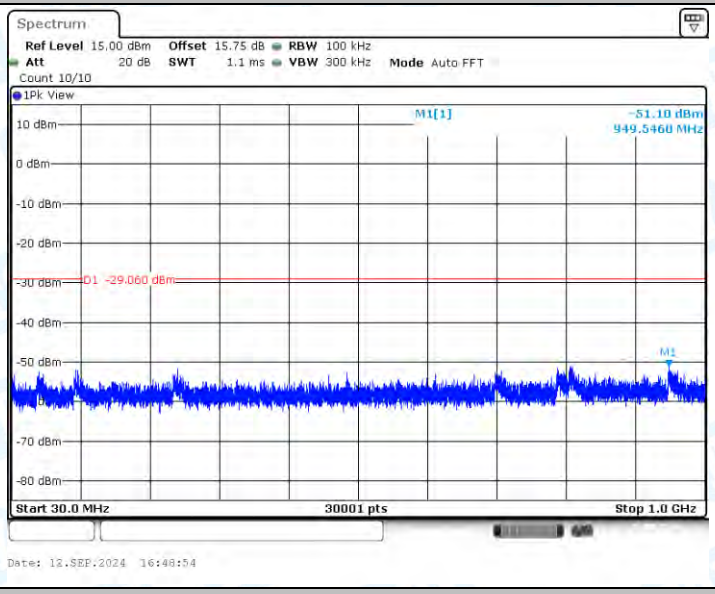
11G-CDD_Ant1_2437_1000~26500



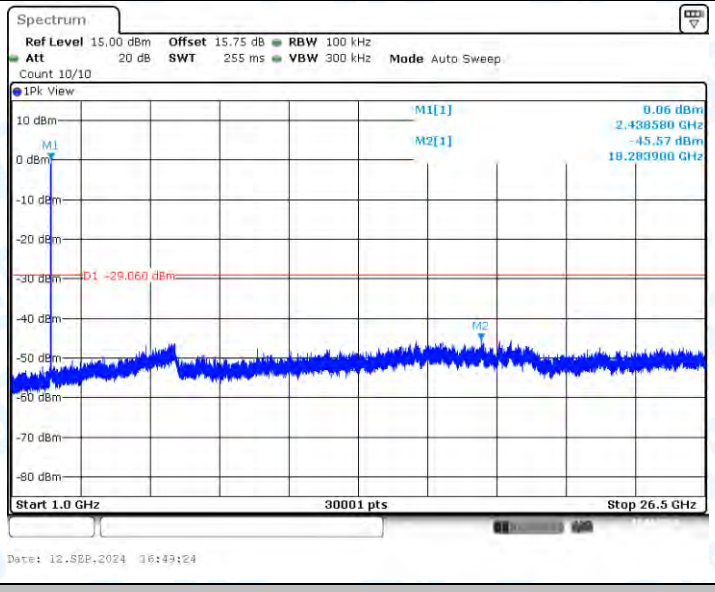
11G-CDD_Ant2_2437_0~Reference



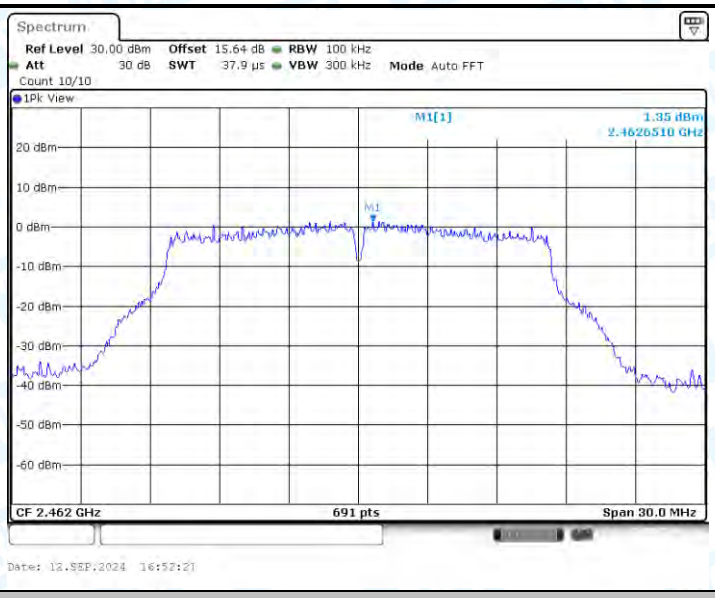
11G-CDD_Ant2_2437_30~1000



11G-CDD_Ant2_2437_1000~26500



11G-CDD_Ant1_2462_0~Reference



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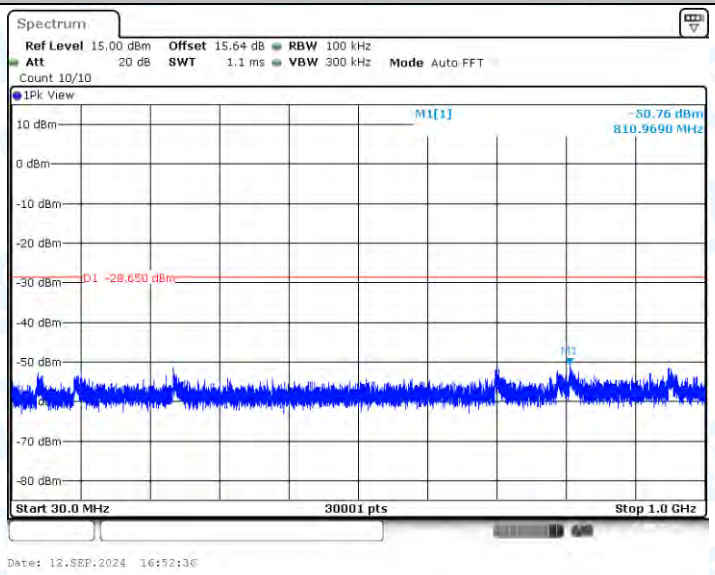

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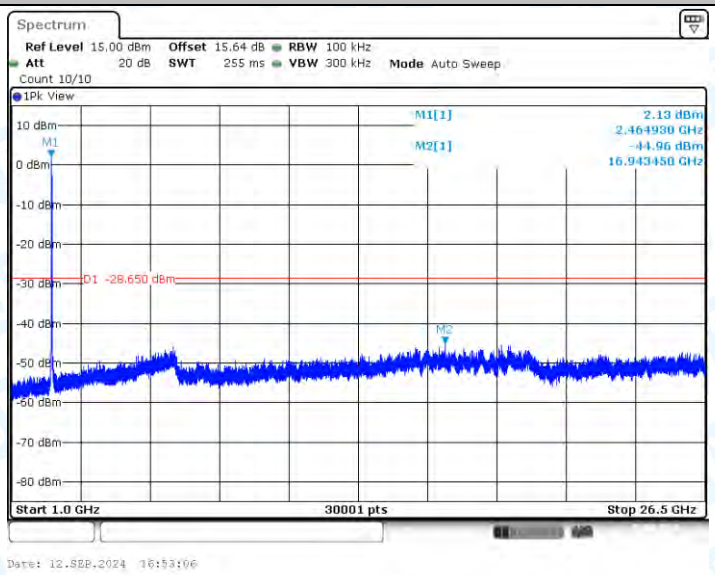

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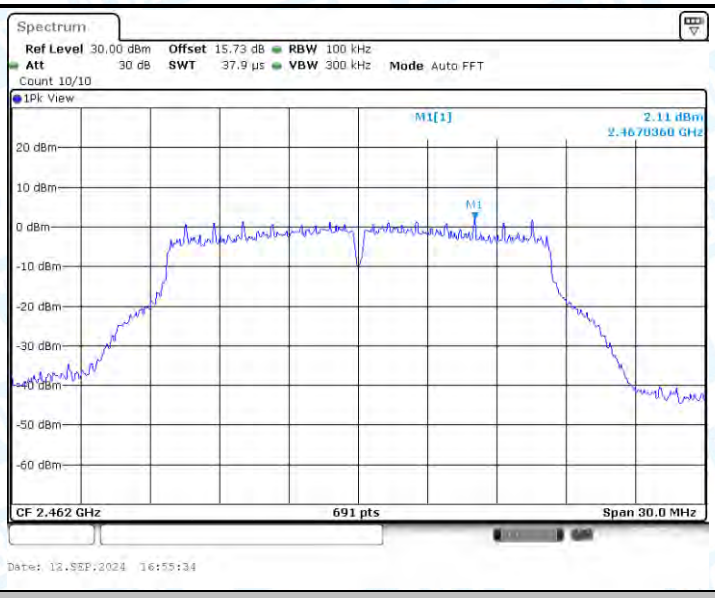

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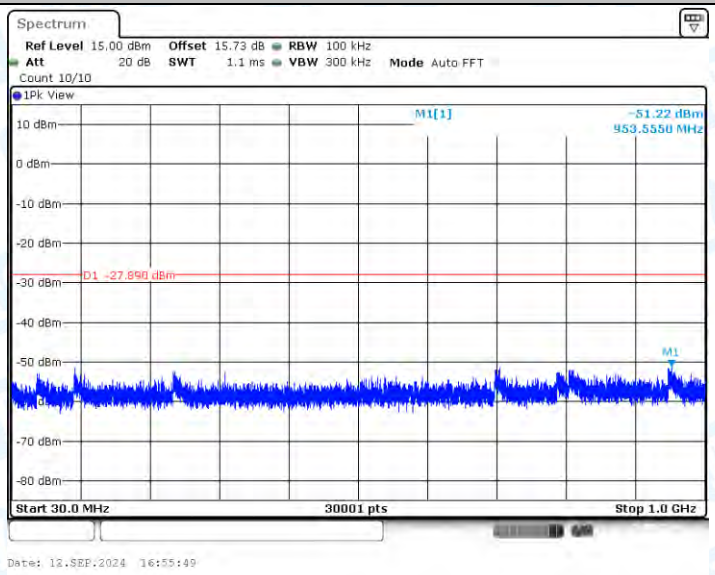

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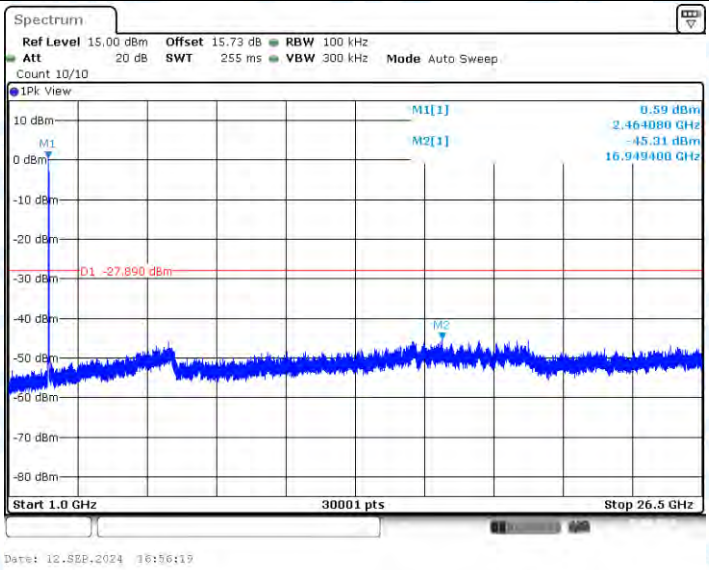

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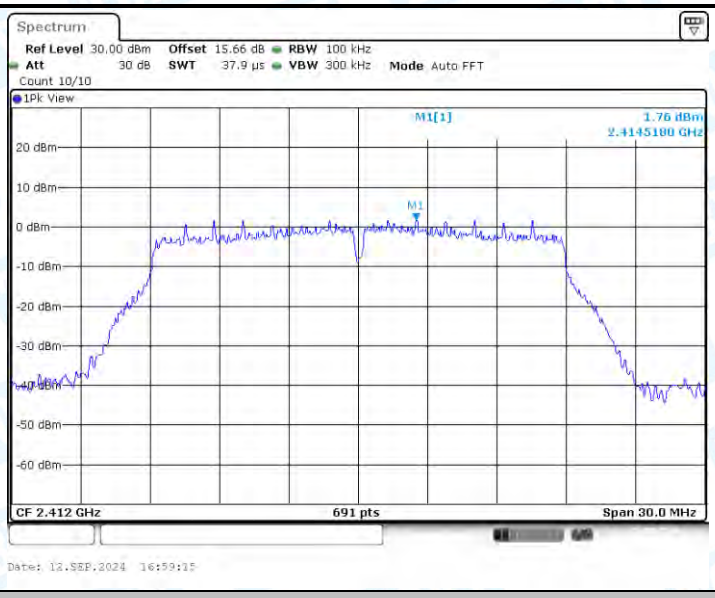

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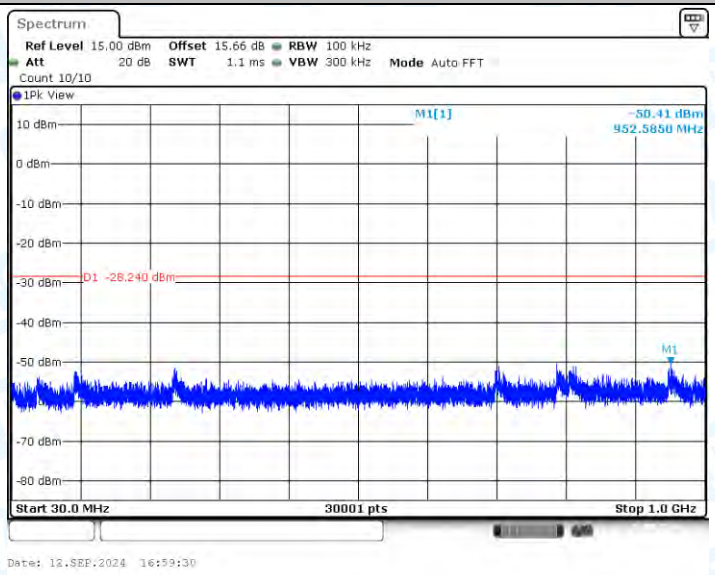

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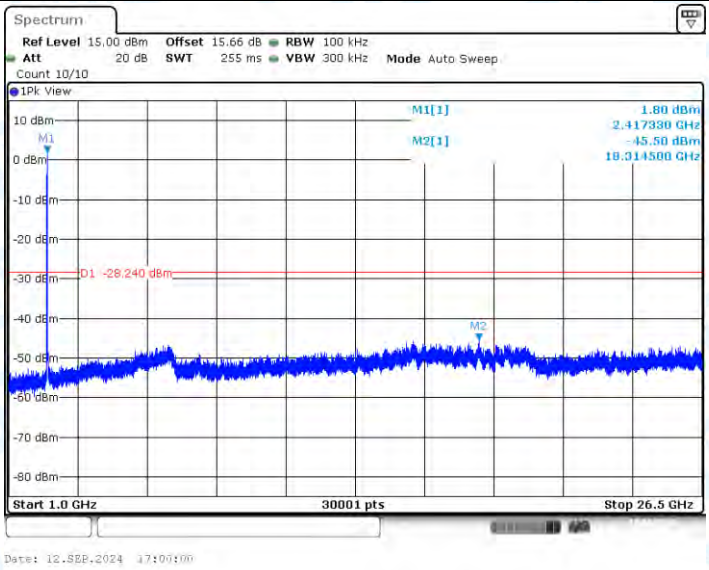

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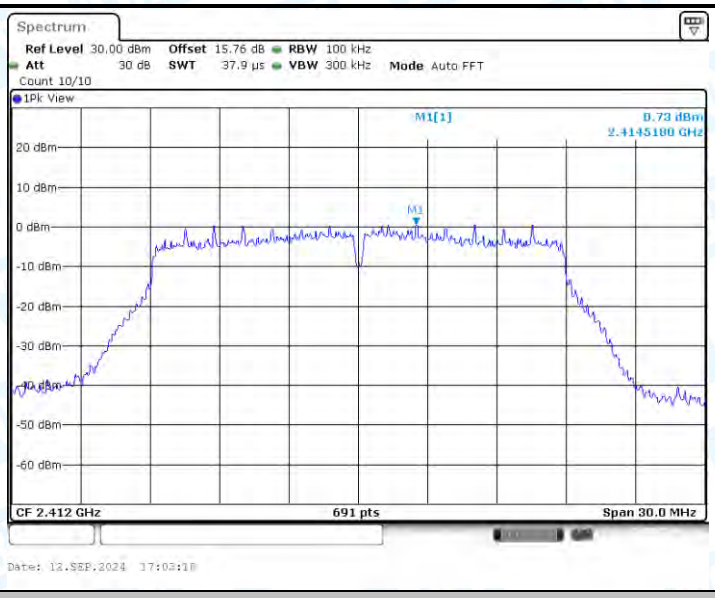

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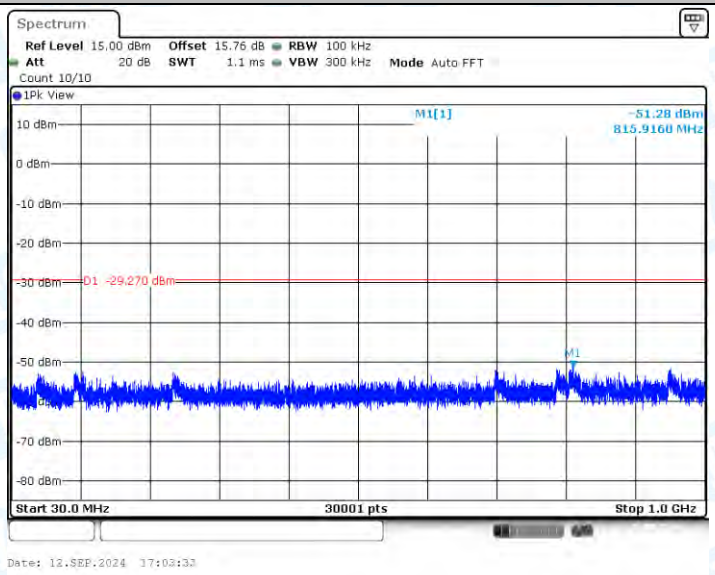

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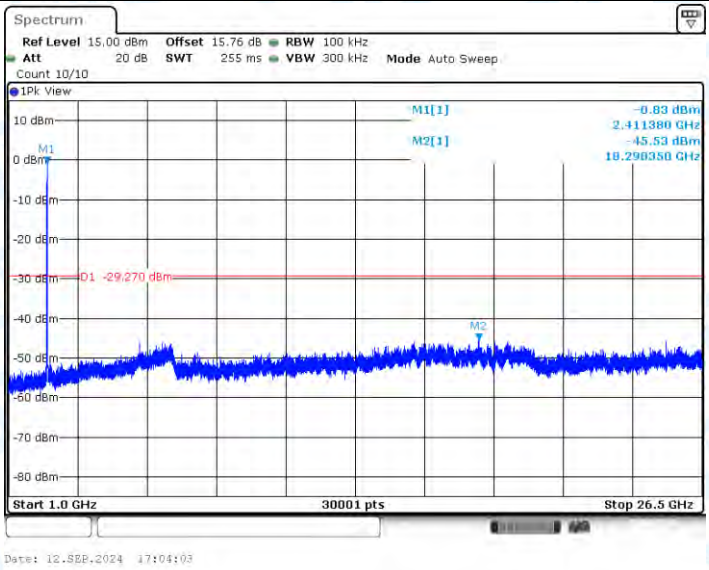

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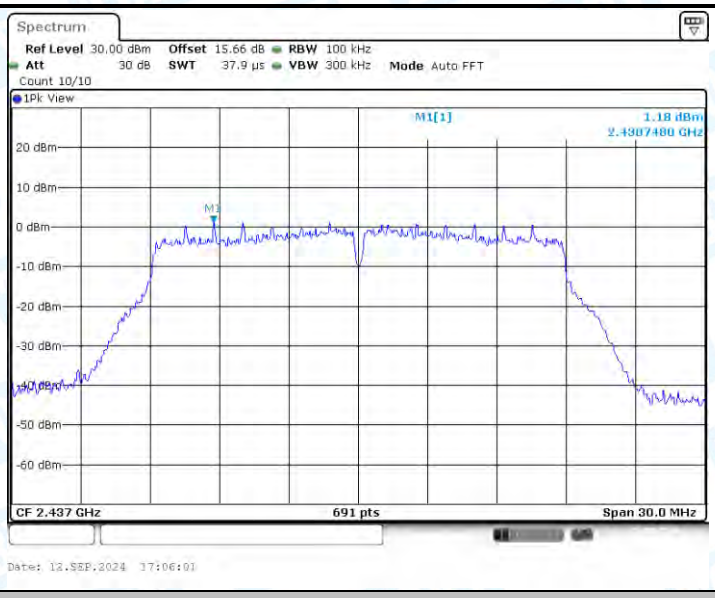

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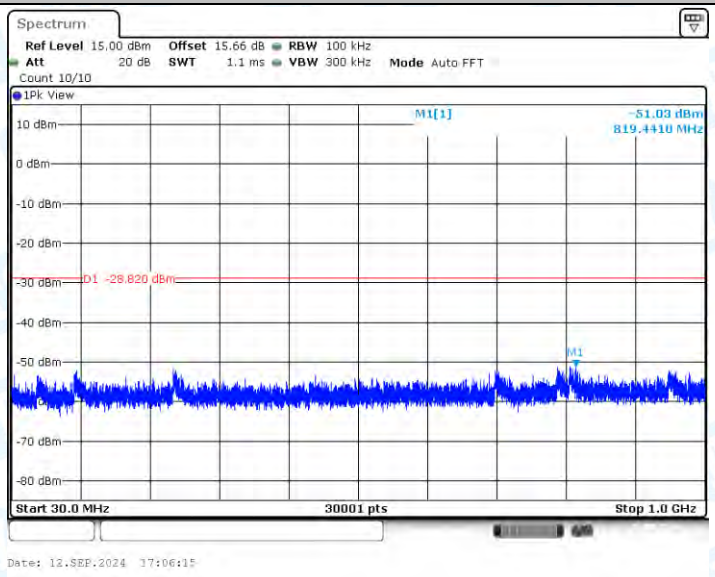

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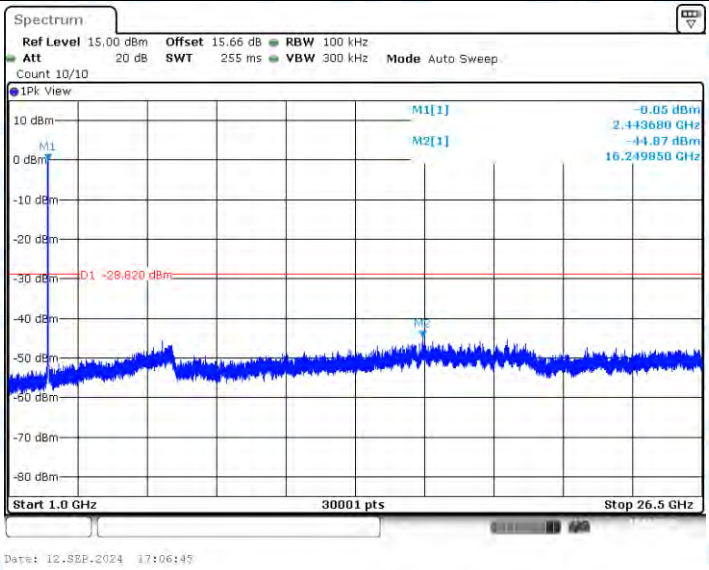

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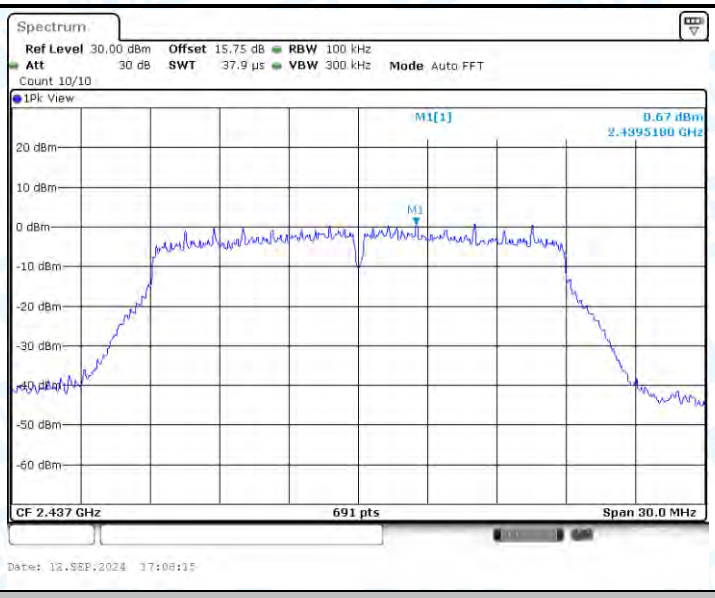

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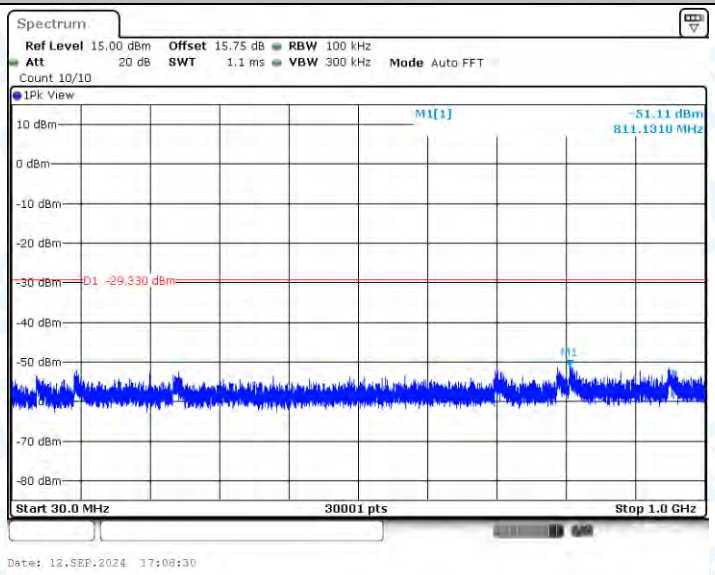

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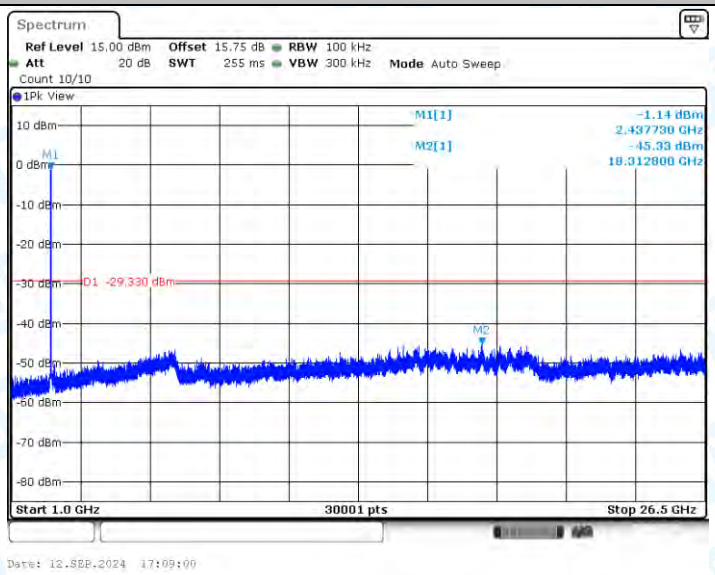

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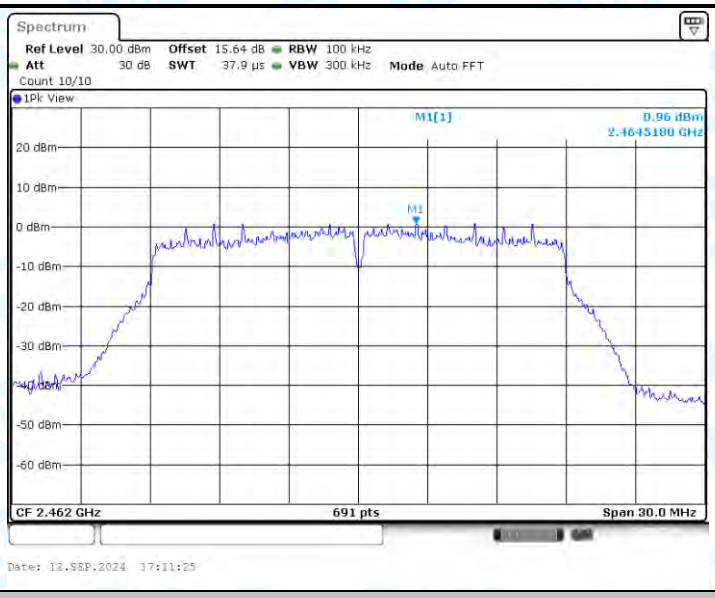

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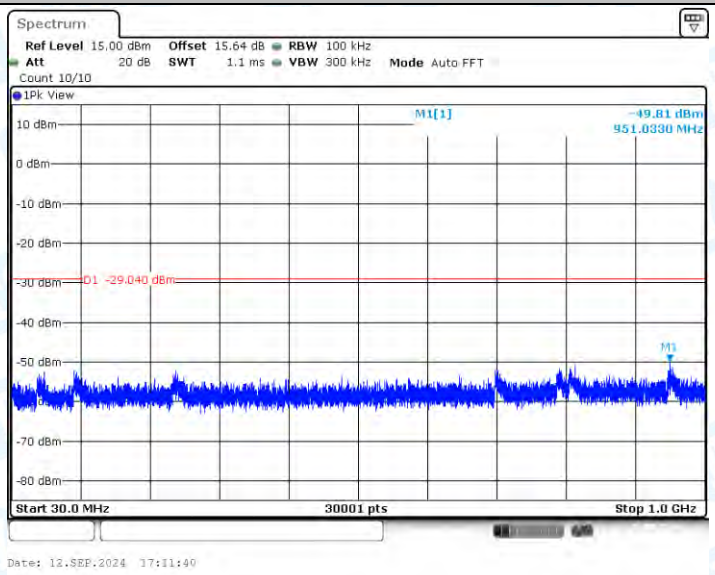

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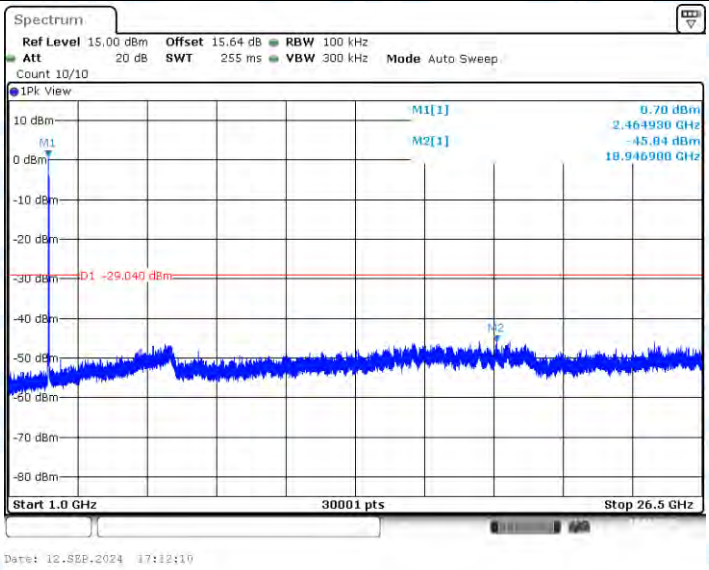

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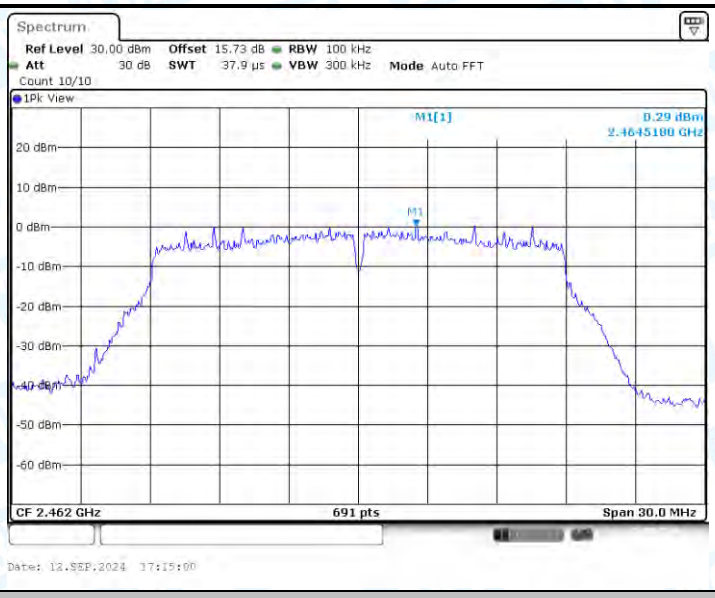

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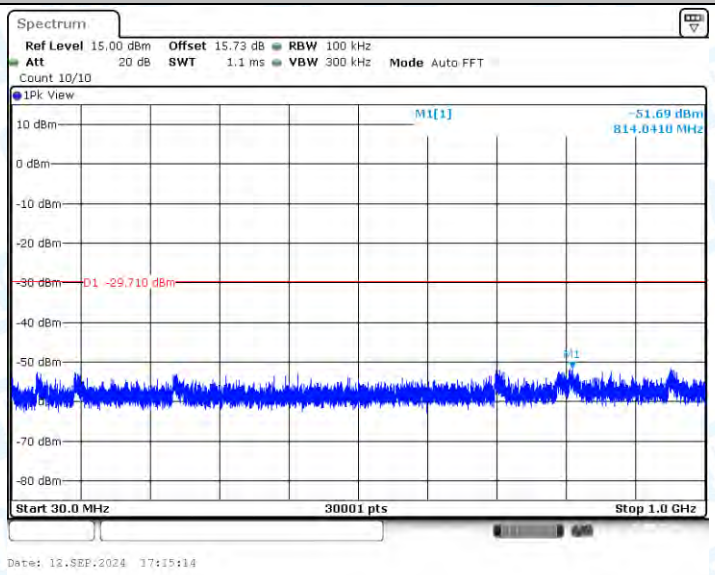

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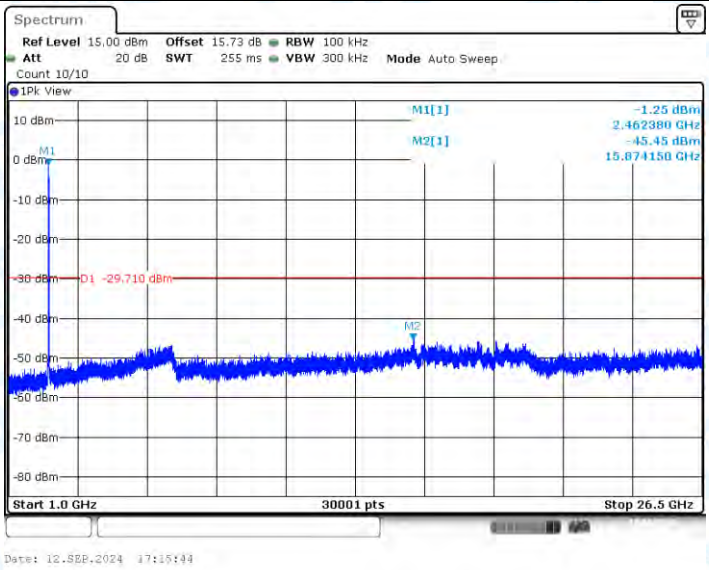

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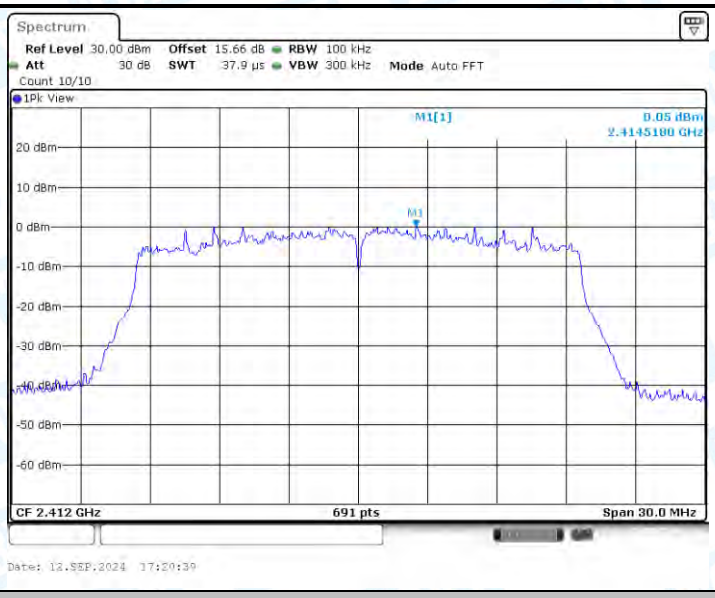

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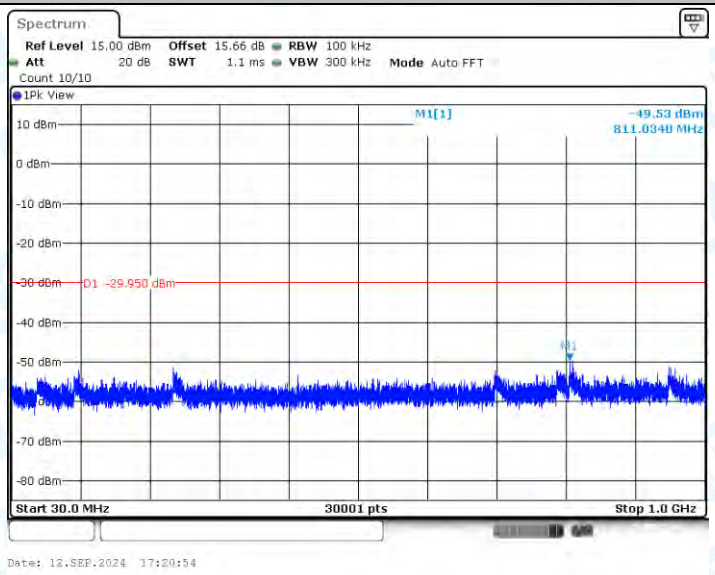

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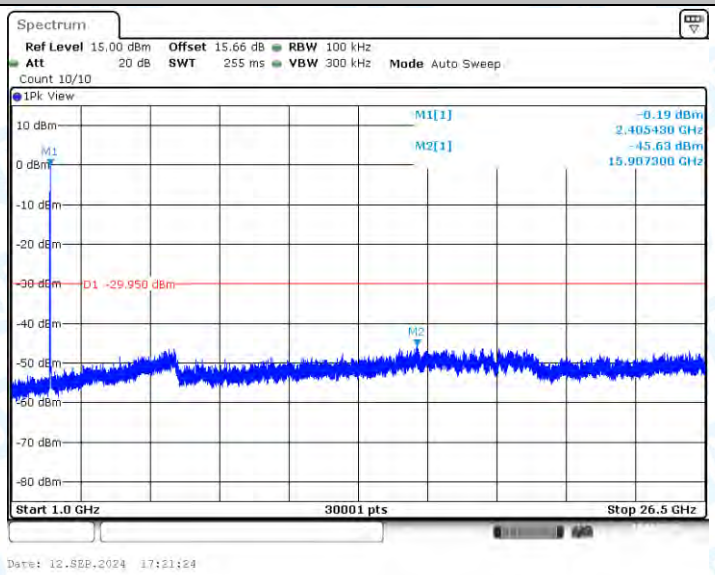

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