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

General Description of EUT	
Product Name:	ORBIT AIR
Test Model:	ORBIT AIR/KR2208
Sample ID:	HC-C-202407-0284-01-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 3.8V
Test Engineer:	Jolin Lee
Note: For a more detailed features description, please refer to the report TBR-C-202407-0284-3	

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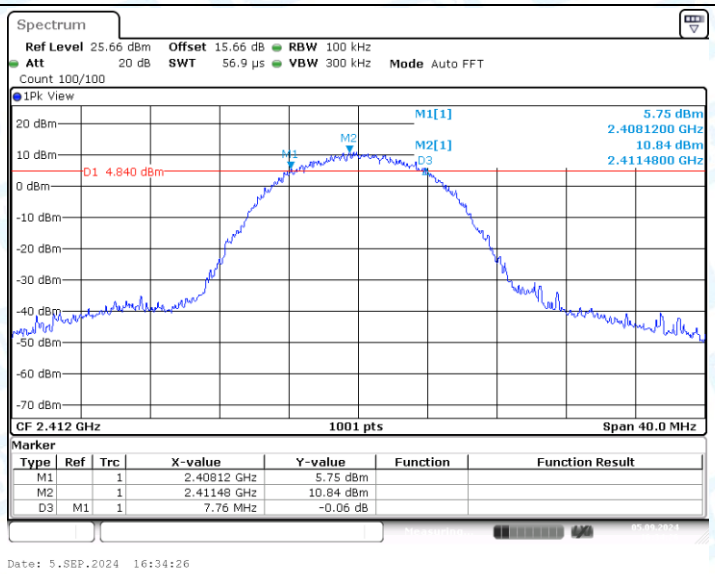
1. DTS Bandwidth

1.1.Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	7.76	2408.12	2415.88	0.5	PASS
	Ant2	2412	7.44	2408.08	2415.52	0.5	PASS
	Ant1	2437	7.16	2433.36	2440.52	0.5	PASS
	Ant2	2437	7.56	2433.28	2440.84	0.5	PASS
	Ant1	2462	7.40	2458.20	2465.60	0.5	PASS
	Ant2	2462	7.16	2458.44	2465.60	0.5	PASS
11G-CDD	Ant1	2412	16.28	2403.88	2420.16	0.5	PASS
	Ant2	2412	16.36	2403.84	2420.20	0.5	PASS
	Ant1	2437	16.32	2428.84	2445.16	0.5	PASS
	Ant2	2437	16.36	2428.84	2445.20	0.5	PASS
	Ant1	2462	16.36	2453.84	2470.20	0.5	PASS
	Ant2	2462	16.36	2453.84	2470.20	0.5	PASS
11N20MIMO	Ant1	2412	17.56	2403.24	2420.80	0.5	PASS
	Ant2	2412	17.32	2403.48	2420.80	0.5	PASS
	Ant1	2437	17.56	2428.24	2445.80	0.5	PASS
	Ant2	2437	17.56	2428.24	2445.80	0.5	PASS
	Ant1	2462	17.56	2453.24	2470.80	0.5	PASS
	Ant2	2462	17.56	2453.24	2470.80	0.5	PASS
11AX20MIMO	Ant1	2412	18.64	2402.76	2421.40	0.5	PASS
	Ant2	2412	18.16	2403.16	2421.32	0.5	PASS
	Ant1	2437	18.40	2428.12	2446.52	0.5	PASS
	Ant2	2437	18.32	2428.08	2446.40	0.5	PASS
	Ant1	2462	17.92	2453.44	2471.36	0.5	PASS
	Ant2	2462	18.80	2452.64	2471.44	0.5	PASS

1.2.Test Graphs



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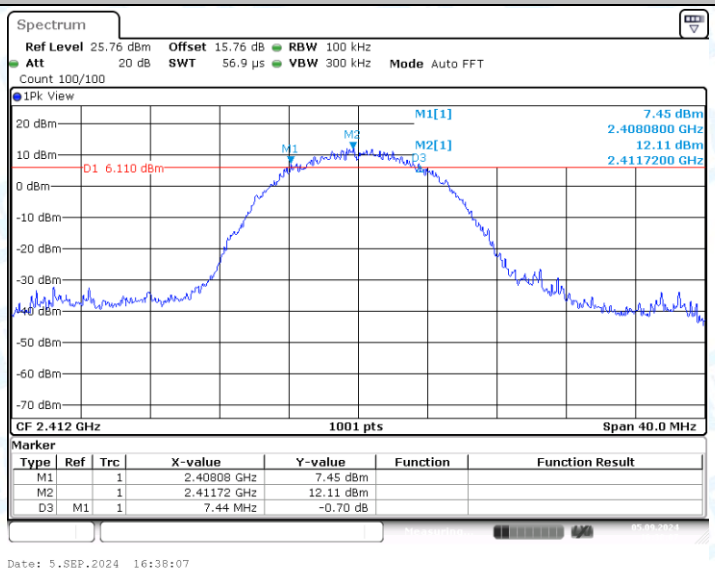

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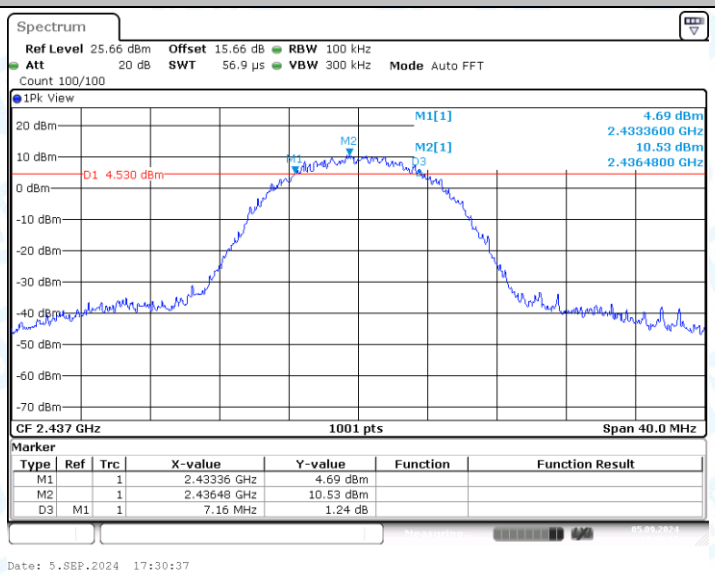

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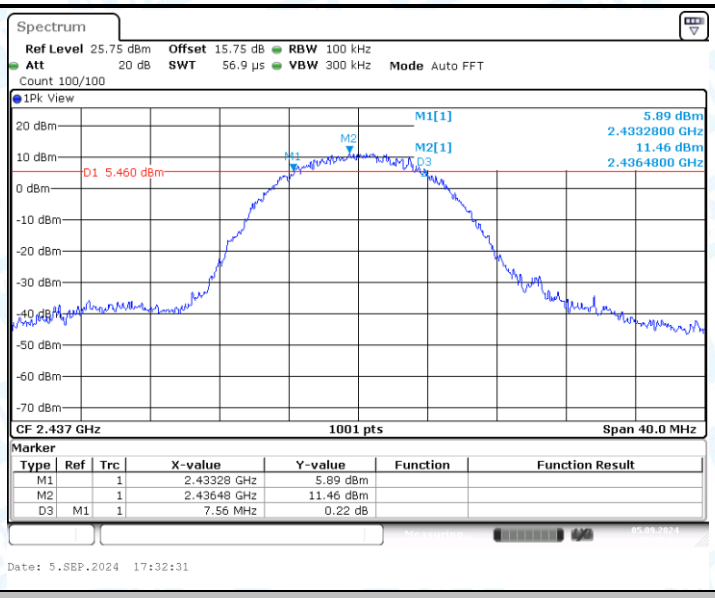

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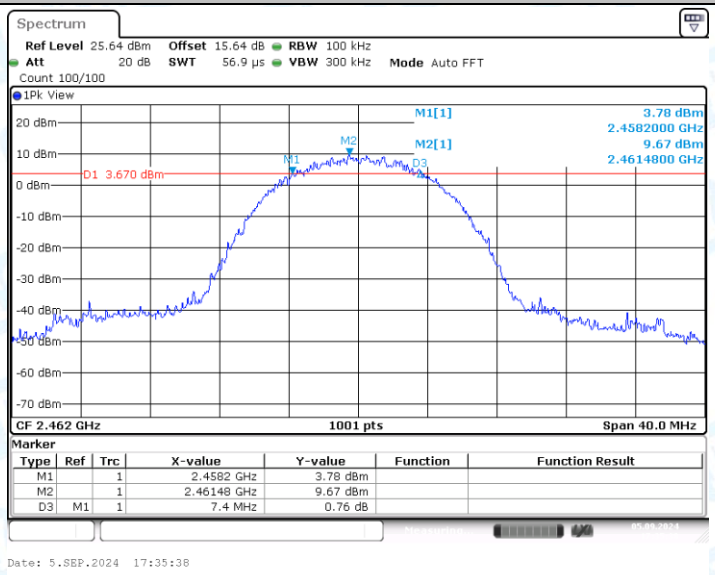

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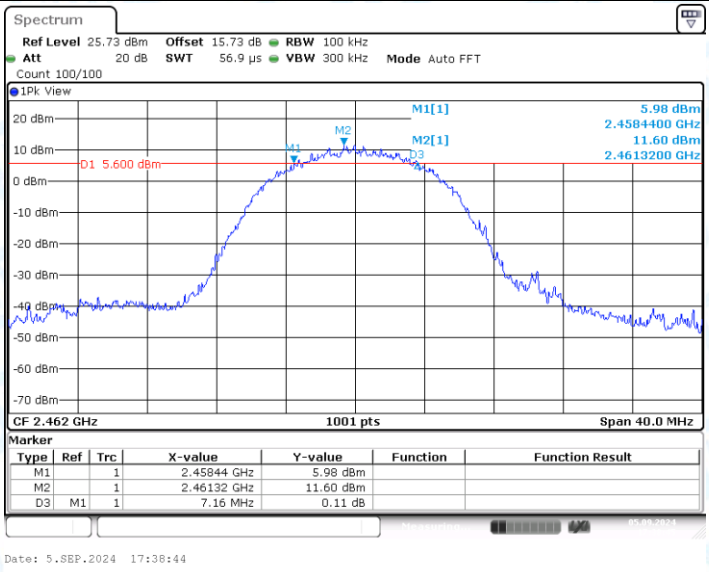

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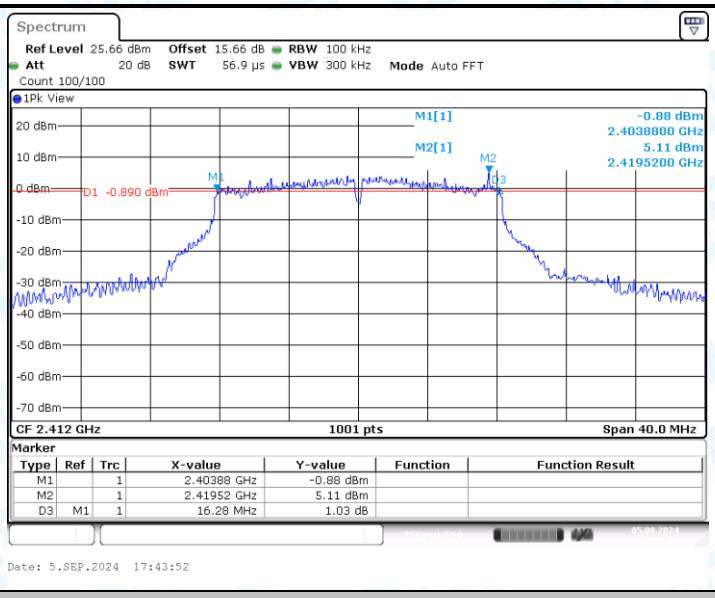

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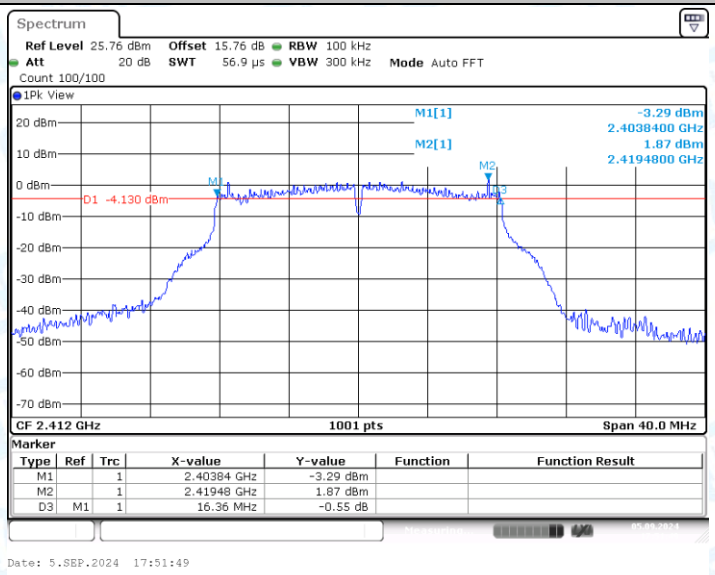

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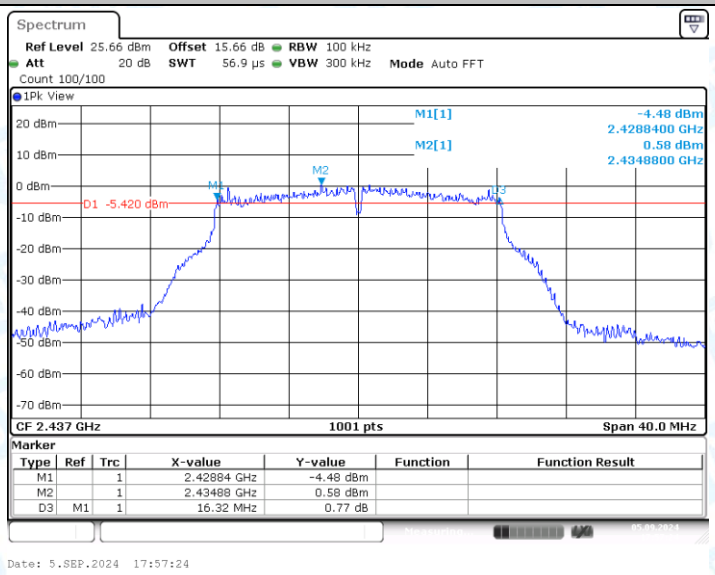

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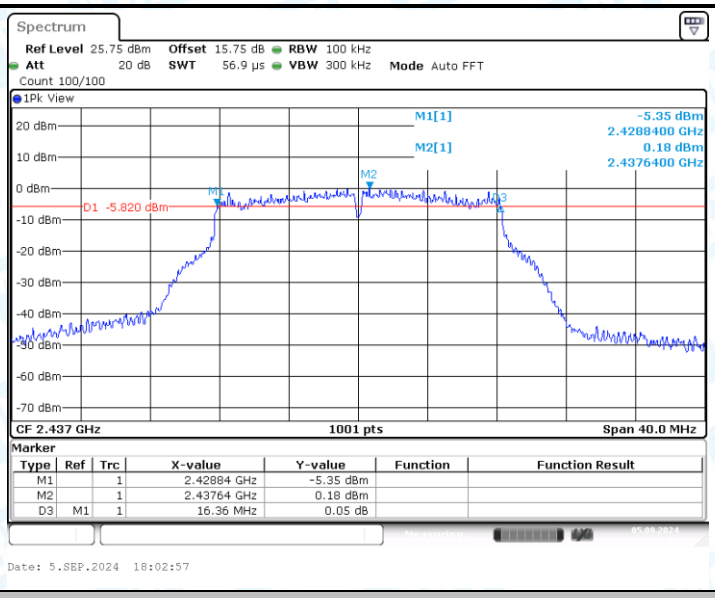

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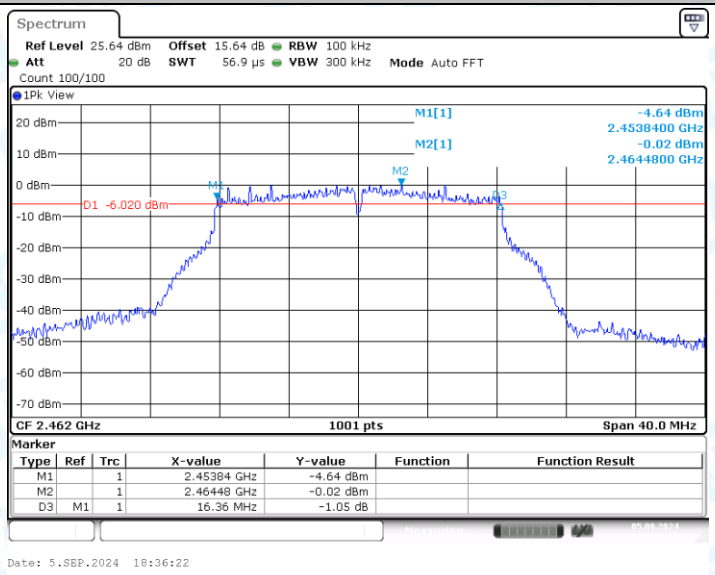

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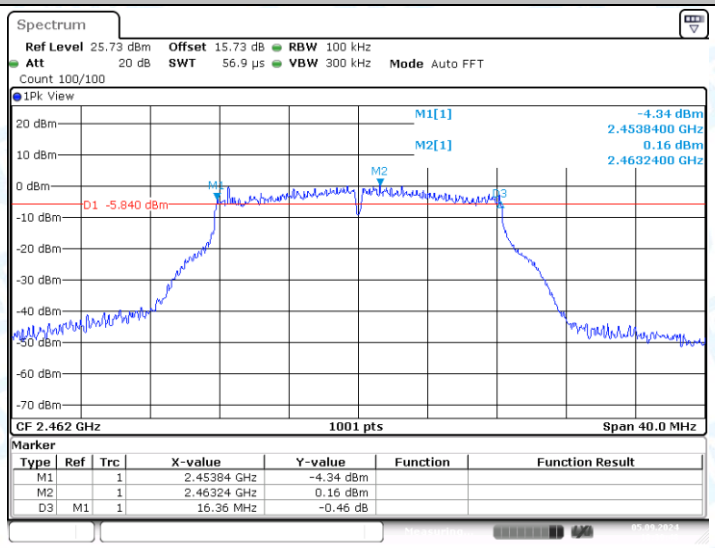

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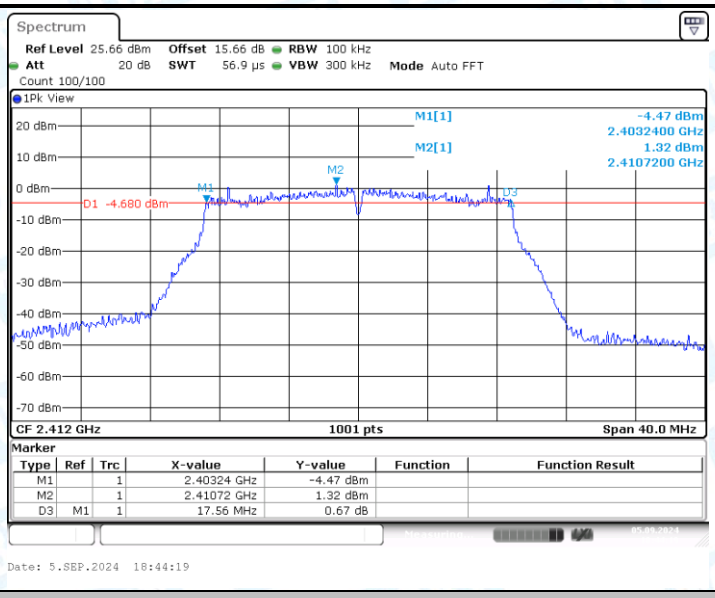

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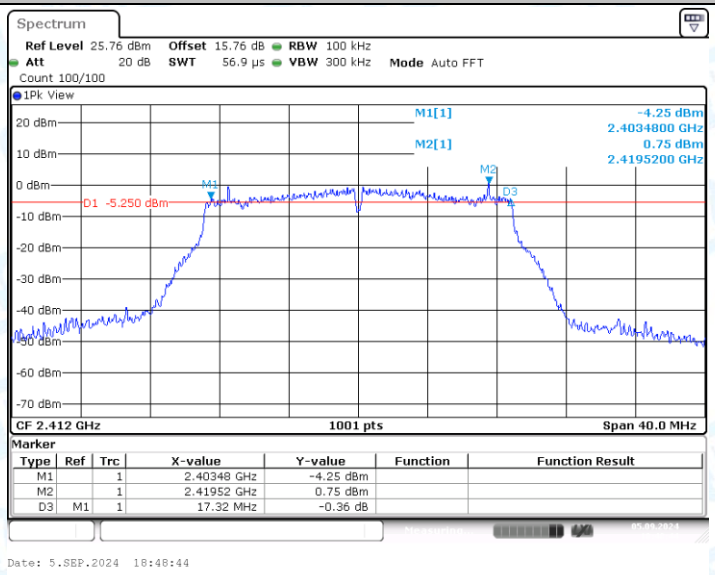

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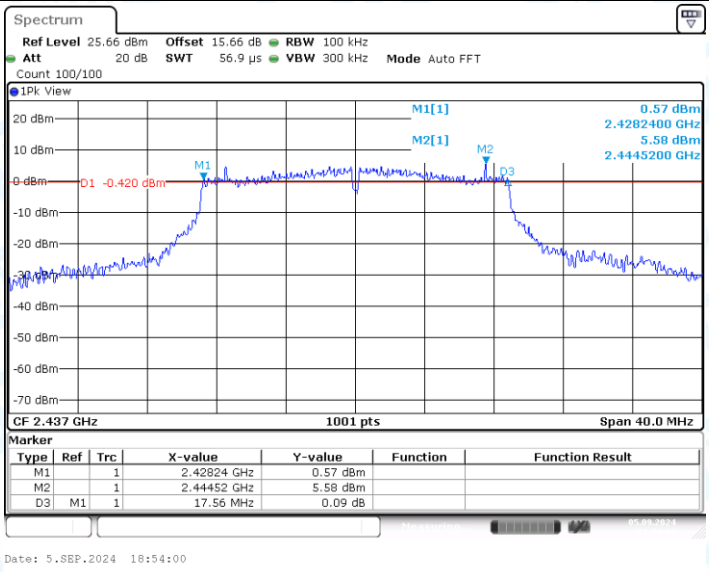

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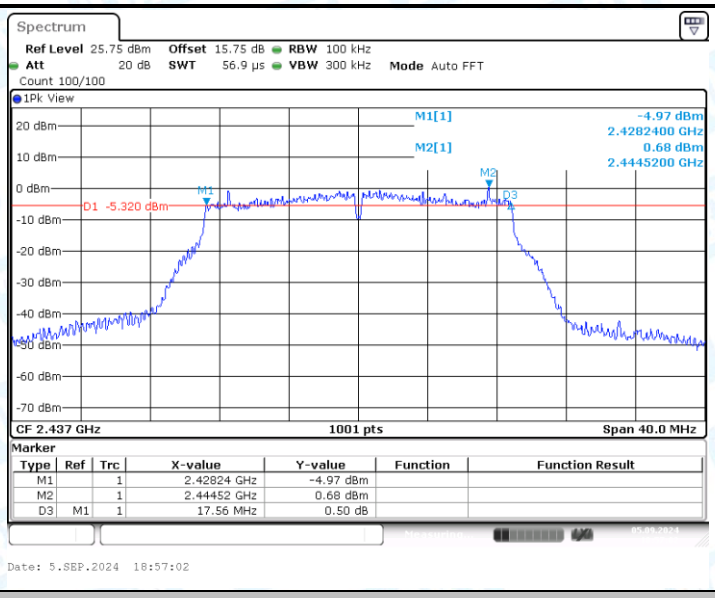

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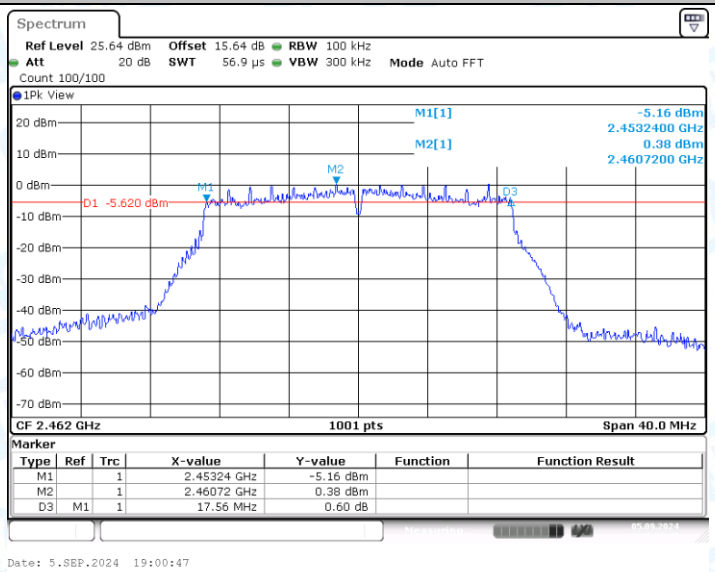

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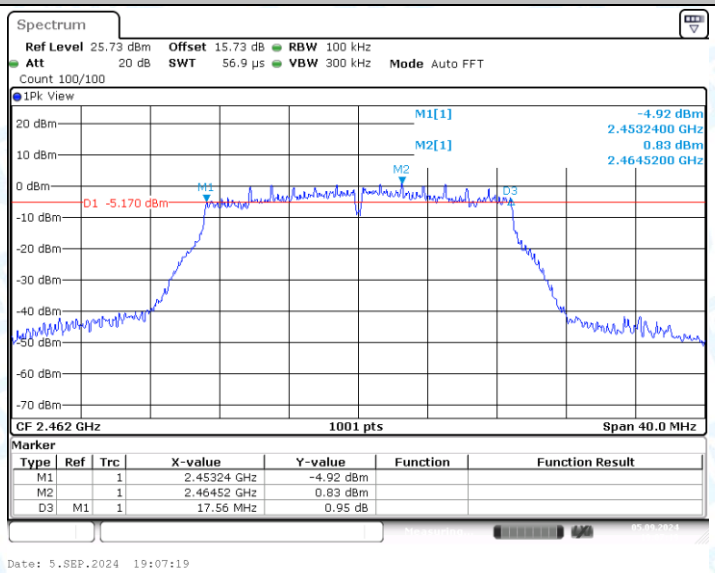

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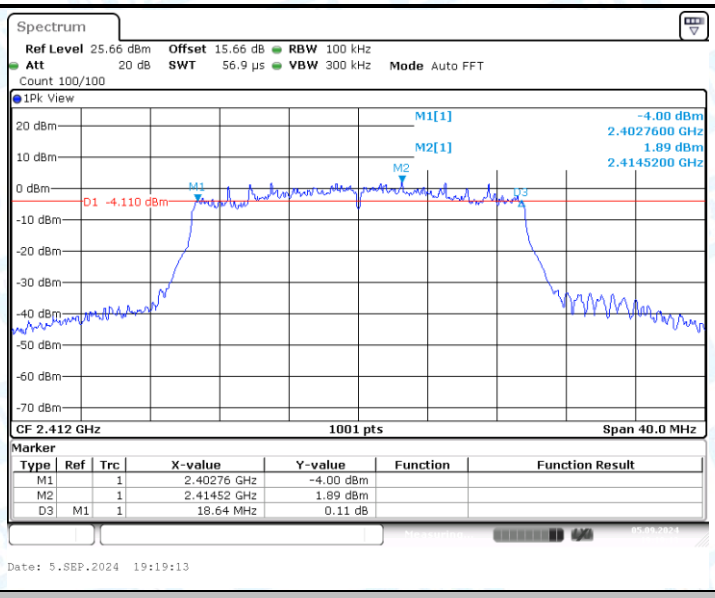

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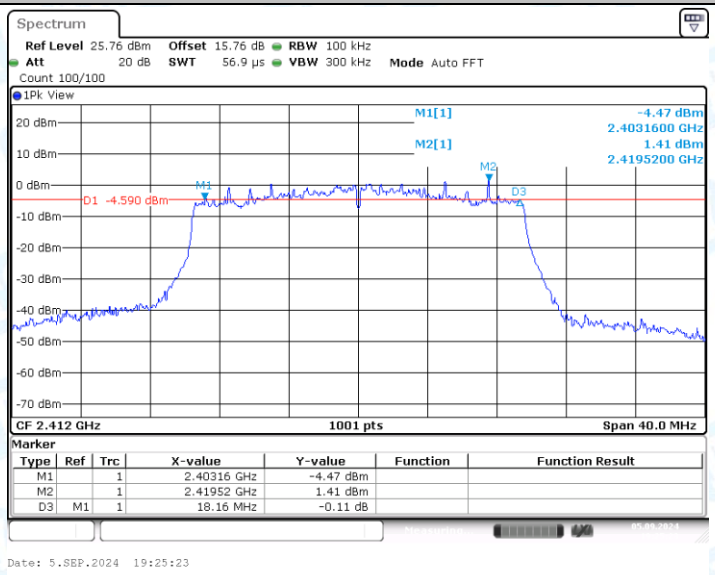

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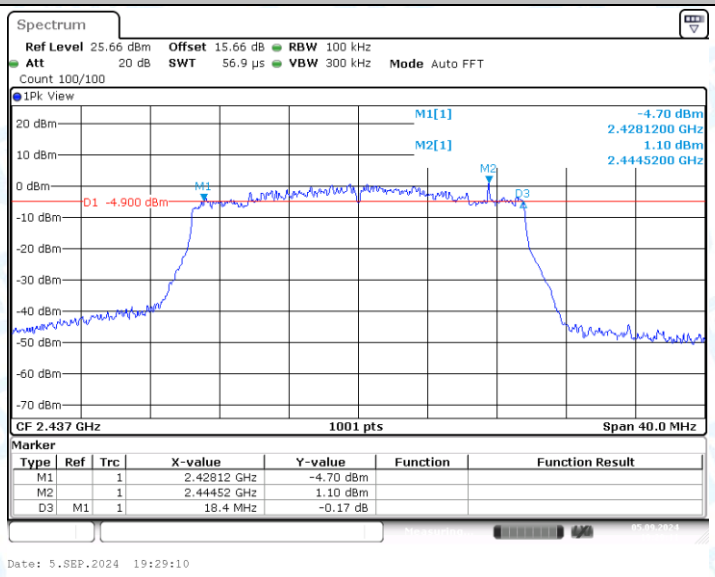

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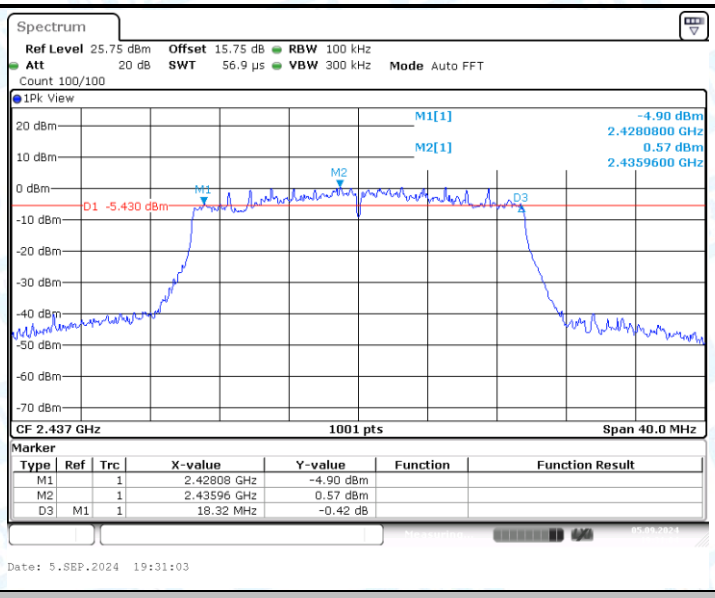

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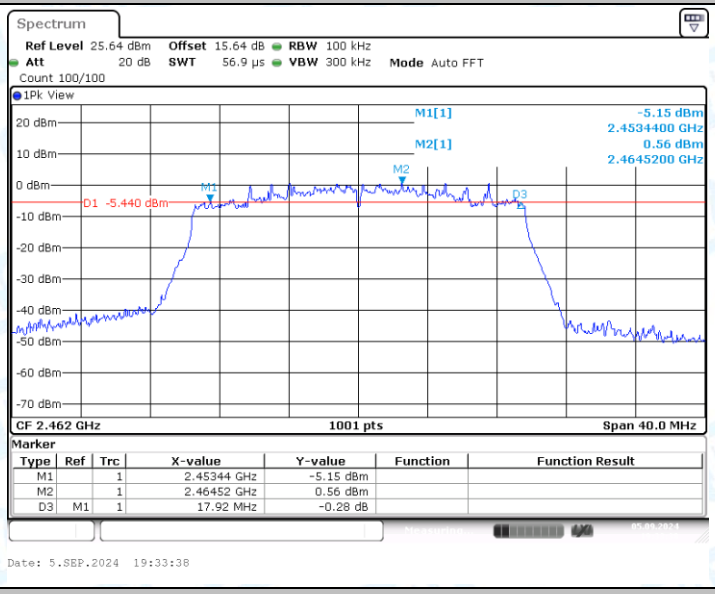

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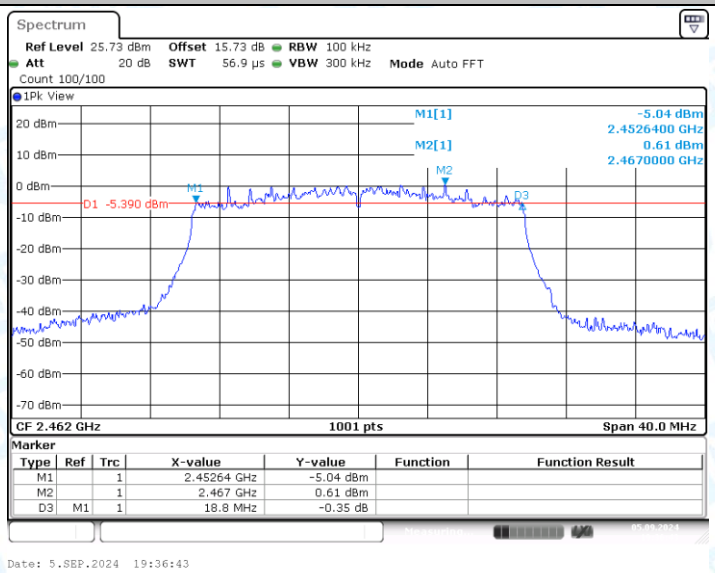


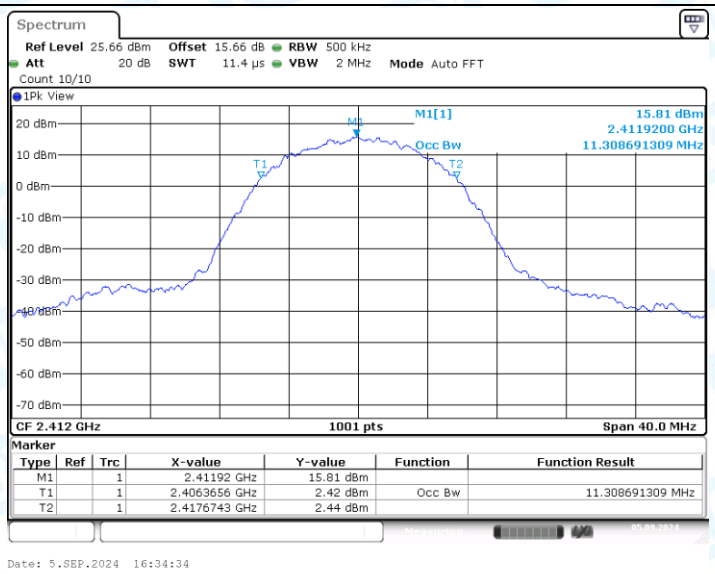
11AX20MIMO_Ant2_2462

2. Occupied Channel Bandwidth

2.1.Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B-CDD	Ant1	2412	11.309	2406.3656	2417.6743	---	---
	Ant2	2412	11.349	2406.3257	2417.6743	---	---
	Ant1	2437	11.229	2431.4056	2442.6344	---	---
	Ant2	2437	11.269	2431.4456	2442.7143	---	---
	Ant1	2462	11.349	2456.3656	2467.7143	---	---
	Ant2	2462	11.189	2456.4456	2467.6344	---	---
11G-CDD	Ant1	2412	17.463	2403.1688	2420.6314	---	---
	Ant2	2412	16.943	2403.5684	2420.5115	---	---
	Ant1	2437	17.343	2428.2887	2445.6314	---	---
	Ant2	2437	17.023	2428.5285	2445.5514	---	---
	Ant1	2462	17.582	2453.3287	2470.9111	---	---
	Ant2	2462	16.783	2453.6883	2470.4715	---	---
11N20MIMO	Ant1	2412	18.781	2402.6893	2421.4705	---	---
	Ant2	2412	18.501	2402.8092	2421.3107	---	---
	Ant1	2437	18.422	2427.9291	2446.3506	---	---
	Ant2	2437	18.422	2427.7293	2446.1508	---	---
	Ant1	2462	18.501	2452.9291	2471.4306	---	---
	Ant2	2462	18.342	2453.0490	2471.3906	---	---
11AX20MIMO	Ant1	2412	18.981	2402.5295	2421.5105	---	---
	Ant2	2412	18.901	2402.5694	2421.4705	---	---
	Ant1	2437	18.941	2427.5694	2446.5105	---	---
	Ant2	2437	18.981	2427.5694	2446.5504	---	---
	Ant1	2462	19.061	2452.4895	2471.5504	---	---
	Ant2	2462	18.941	2452.5694	2471.5105	---	---

2.2.Test Graphs



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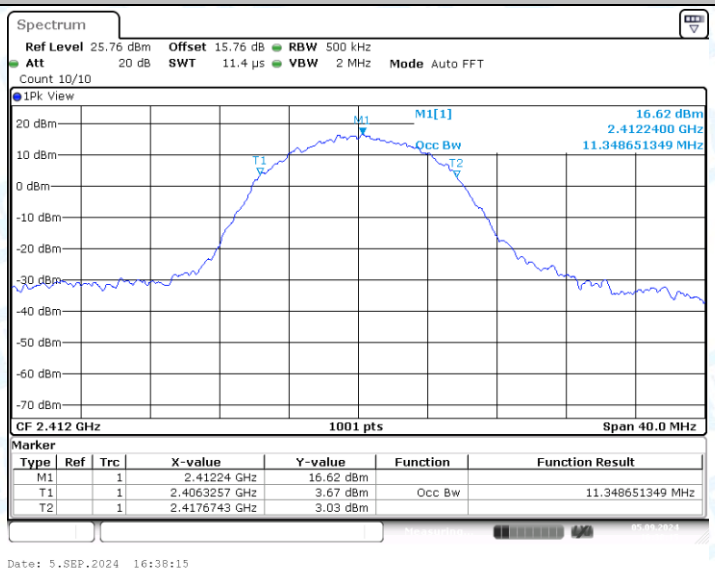

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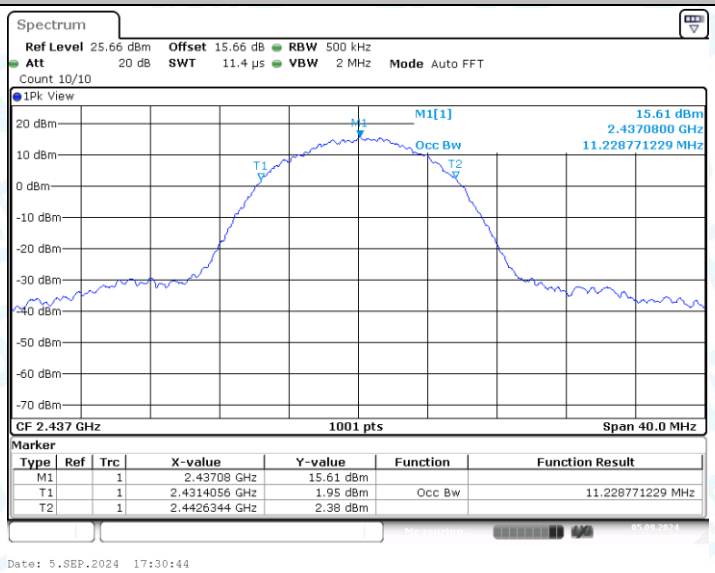

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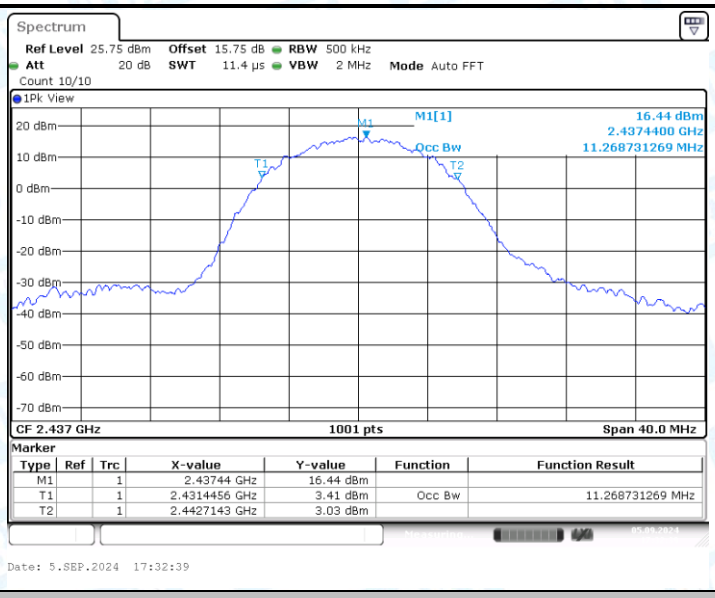

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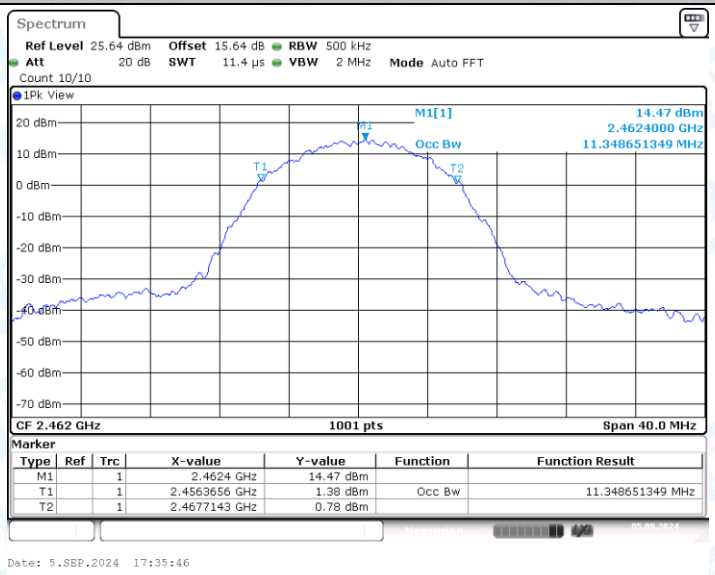

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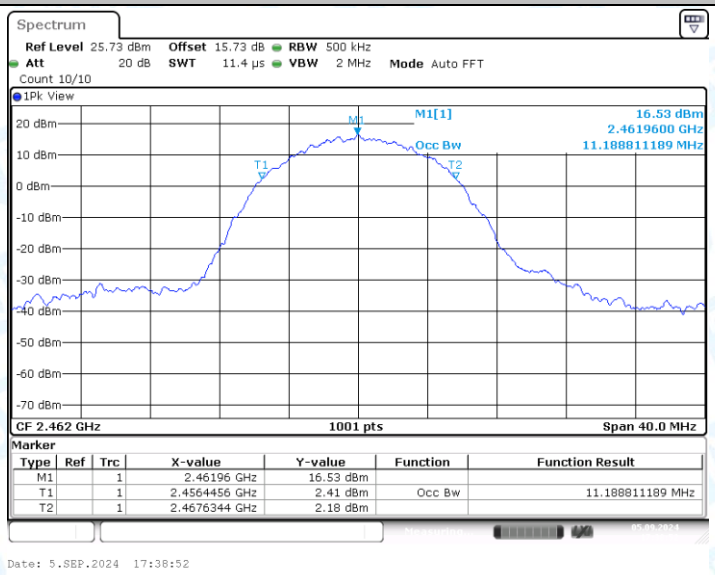

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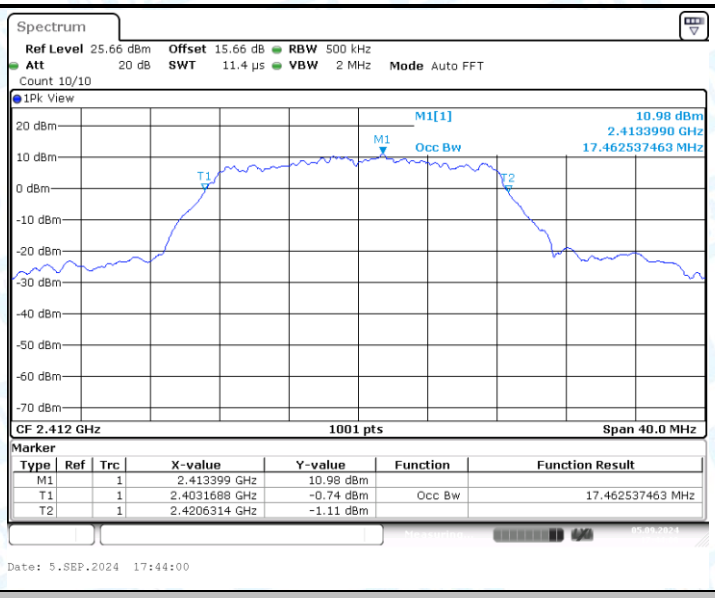

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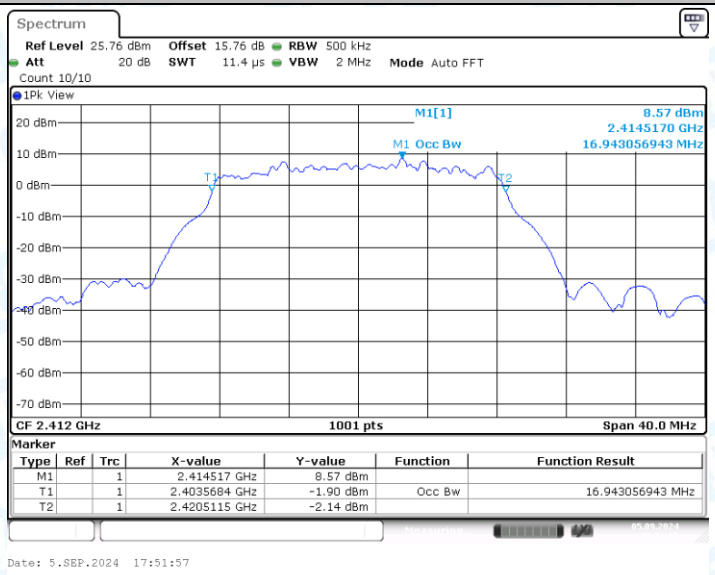

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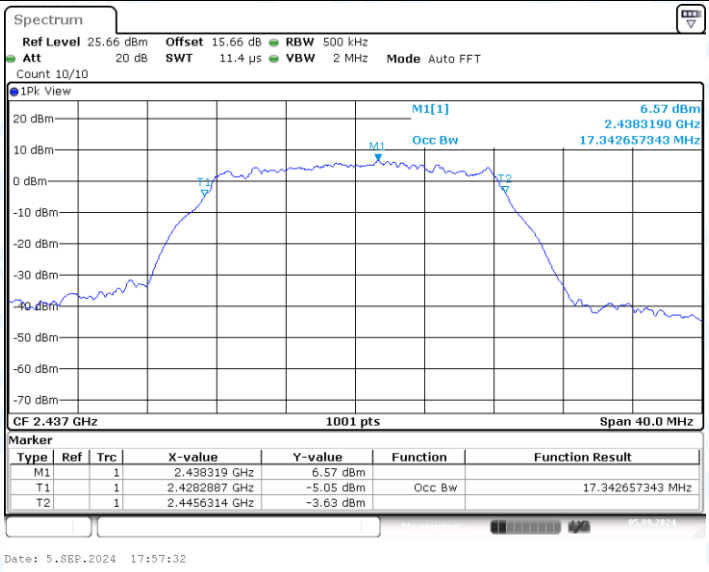

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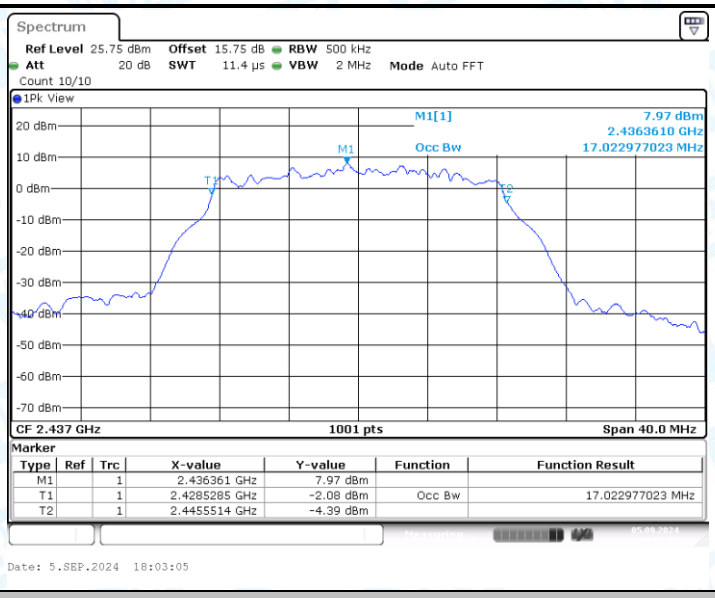

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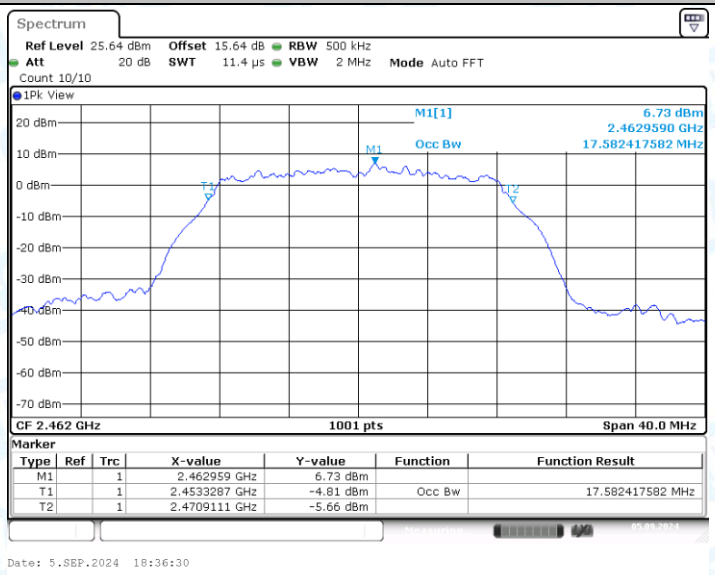

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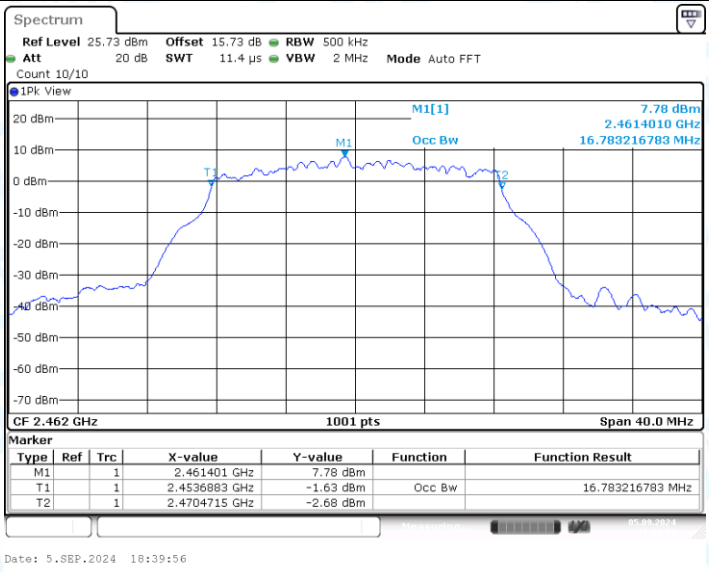

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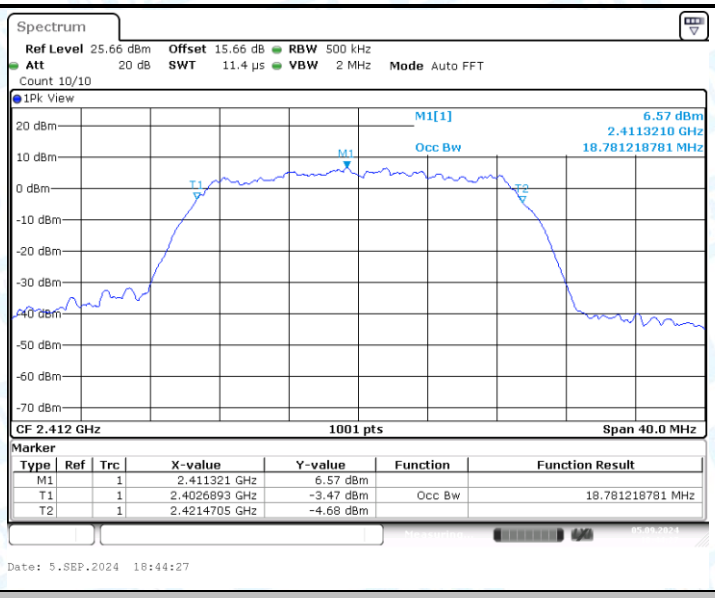

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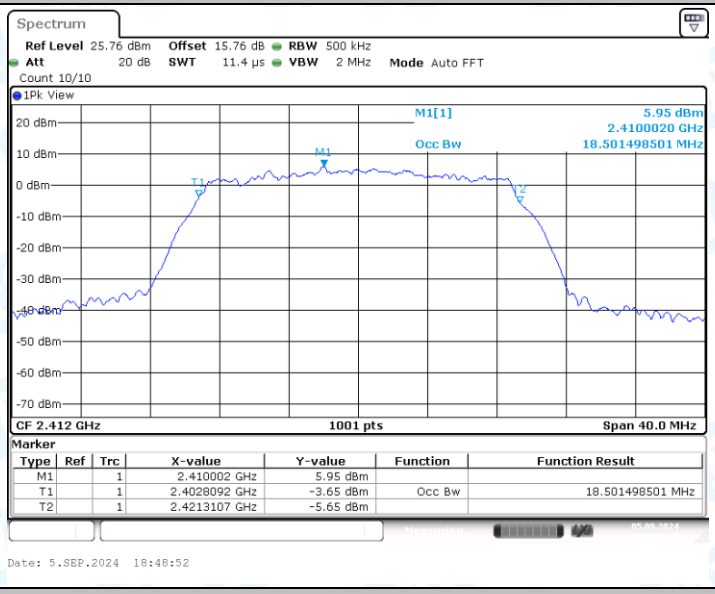

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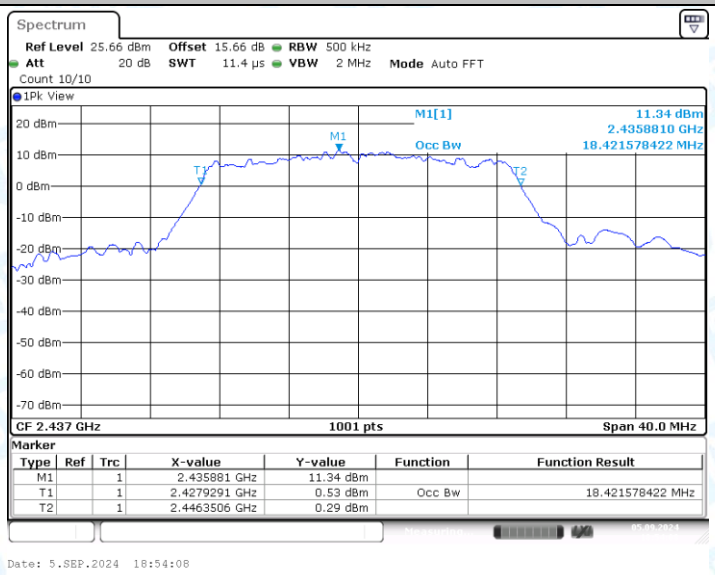

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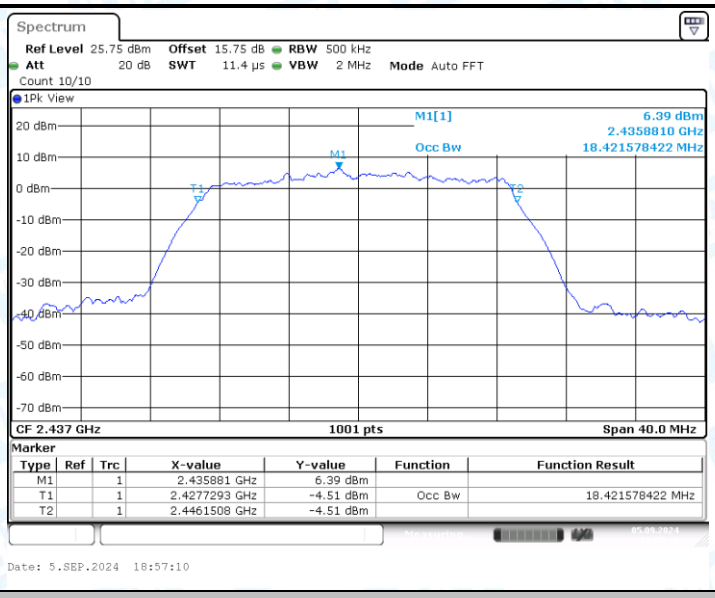
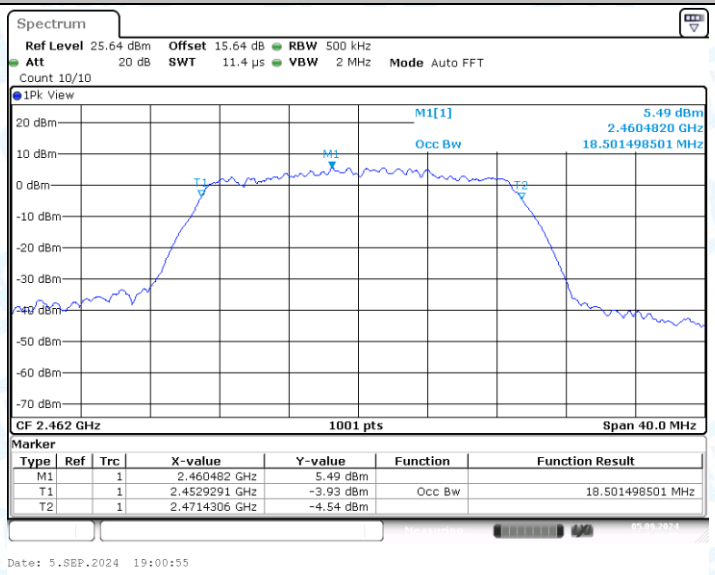
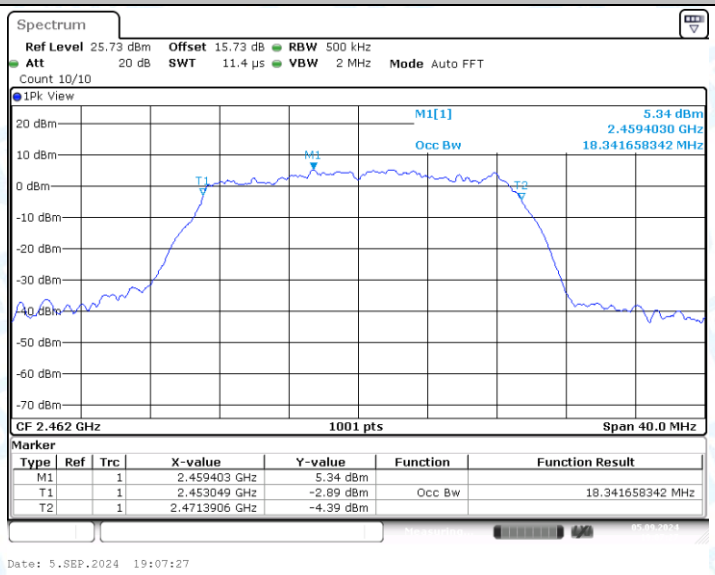


11N20MIMO_Ant2_2437



11N20MIMO_Ant1_2462



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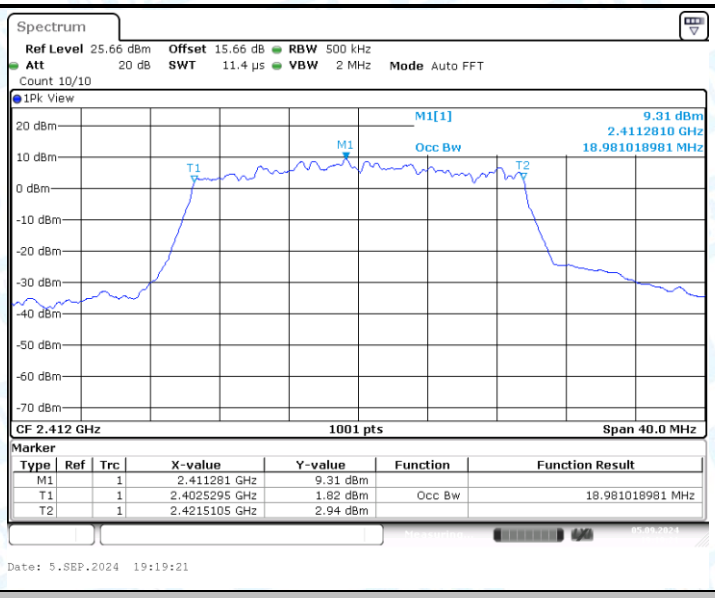
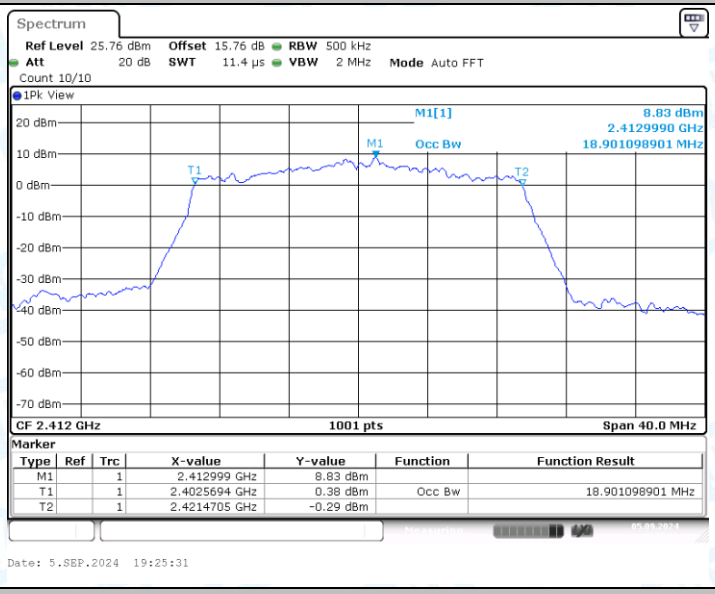


11AX20MIMO_Ant1_2412



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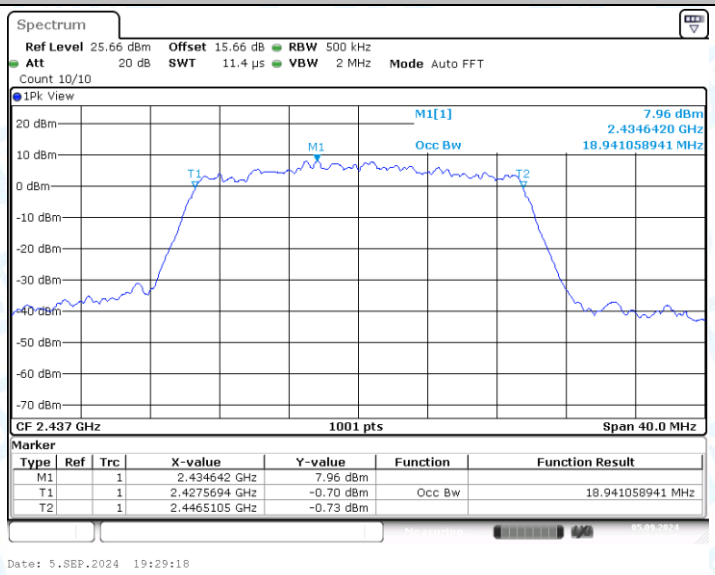

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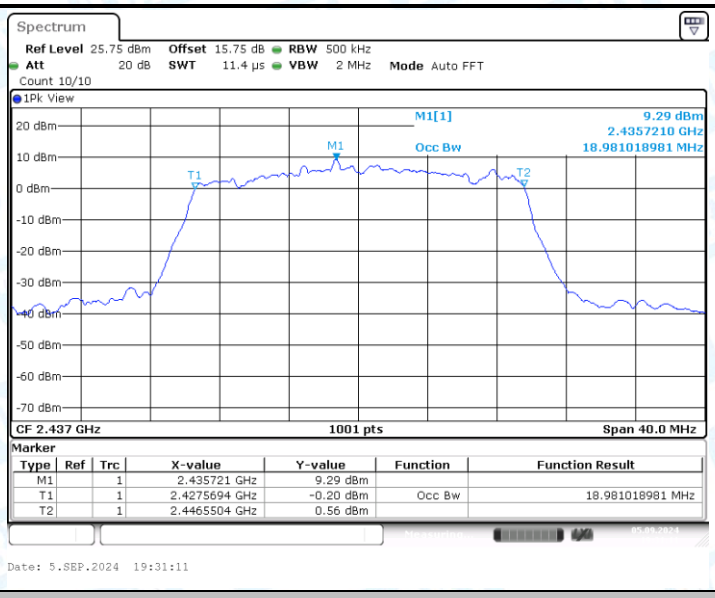

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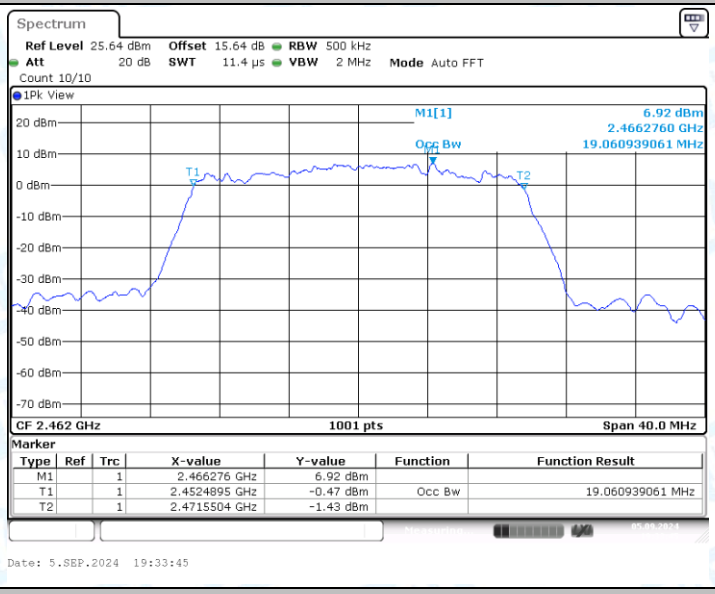
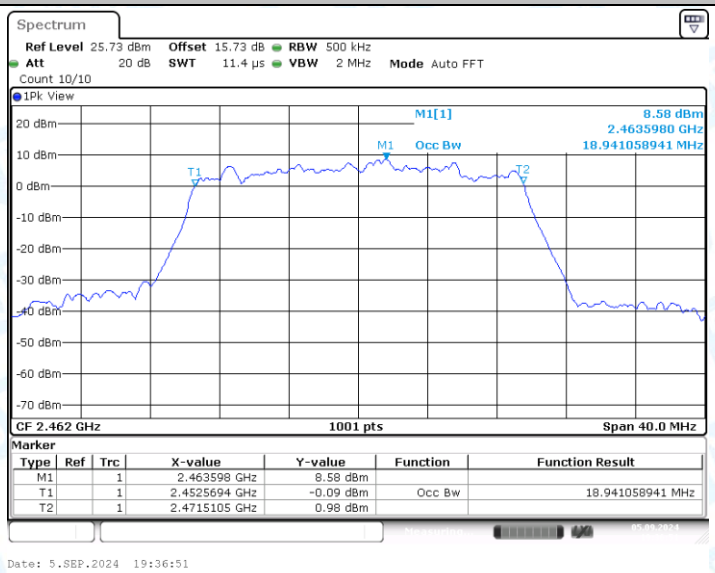


11AX20MIMO_Ant1_2462



11AX20MIMO_Ant2_2462

3. Maximum conducted output power

3.1.Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B-CDD	Ant1	2412	18.21	≤30.00	PASS
	Ant2	2412	14.41	≤30.00	PASS
	total	2412	19.72	≤30.00	PASS
	Ant1	2437	19.39	≤30.00	PASS
	Ant2	2437	20.51	≤30.00	PASS
	total	2437	23.00	≤30.00	PASS
	Ant1	2462	18.26	≤30.00	PASS
	Ant2	2462	19.96	≤30.00	PASS
	total	2462	22.20	≤30.00	PASS
11G-CDD	Ant1	2412	13.99	≤30.00	PASS
	Ant2	2412	13.49	≤30.00	PASS
	total	2412	16.76	≤30.00	PASS
	Ant1	2437	13.42	≤30.00	PASS
	Ant2	2437	13.26	≤30.00	PASS
	total	2437	16.35	≤30.00	PASS
	Ant1	2462	13.01	≤30.00	PASS
	Ant2	2462	13.42	≤30.00	PASS
	total	2462	16.23	≤30.00	PASS
11N20MIMO	Ant1	2412	12.38	≤30.00	PASS
	Ant2	2412	13.10	≤30.00	PASS
	total	2412	15.77	≤30.00	PASS
	Ant1	2437	13.32	≤30.00	PASS
	Ant2	2437	13.09	≤30.00	PASS
	total	2437	16.22	≤30.00	PASS
	Ant1	2462	12.95	≤30.00	PASS
	Ant2	2462	12.90	≤30.00	PASS
	total	2462	15.94	≤30.00	PASS
11AX20MIMO	Ant1	2412	14.48	≤30.00	PASS
	Ant2	2412	13.77	≤30.00	PASS
	total	2412	17.15	≤30.00	PASS
	Ant1	2437	12.70	≤30.00	PASS
	Ant2	2437	13.44	≤30.00	PASS
	total	2437	16.10	≤30.00	PASS
	Ant1	2462	13.21	≤30.00	PASS
	Ant2	2462	13.58	≤30.00	PASS
	total	2462	16.41	≤30.00	PASS

Note：The Duty Cycle Factor is compensated in the graph.

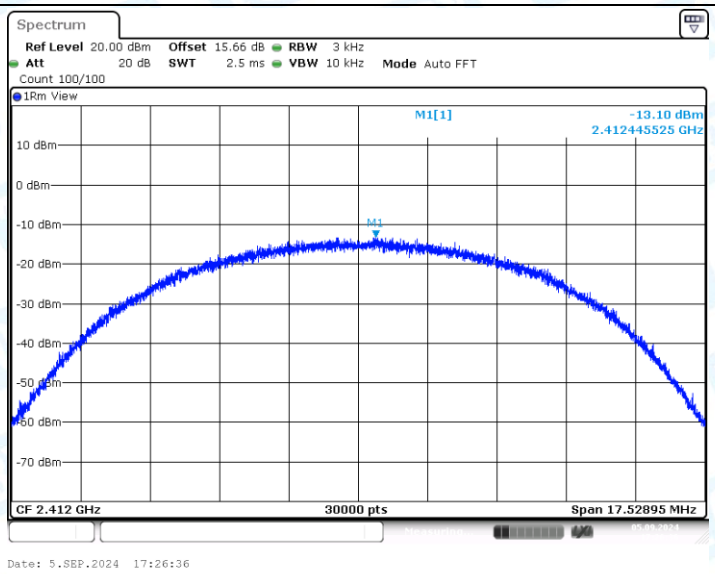
4. Maximum power spectral density

4.1.Test Result

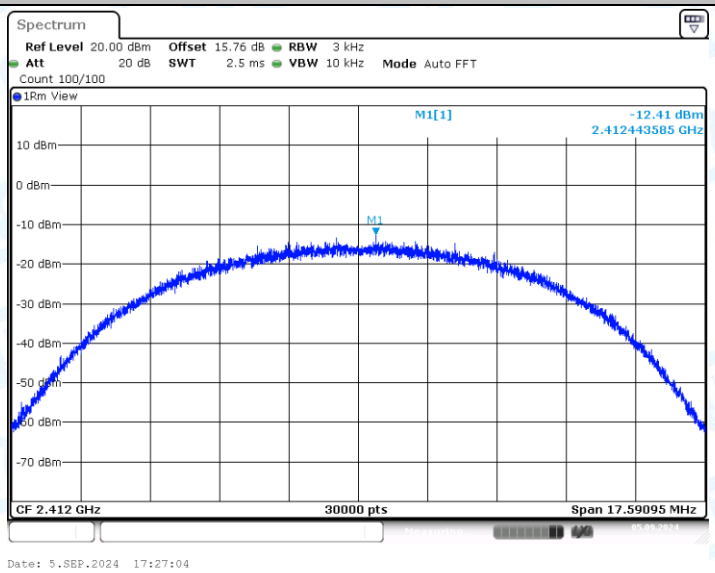
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B-CDD	Ant1	2412	-12.66	≤8.00	PASS
	Ant2	2412	-11.97	≤8.00	PASS
	total	2412	-9.29	≤8.00	PASS
	Ant1	2437	-10.52	≤8.00	PASS
	Ant2	2437	-9.29	≤8.00	PASS
	total	2437	-6.85	≤8.00	PASS
	Ant1	2462	-12.44	≤8.00	PASS
	Ant2	2462	-11.01	≤8.00	PASS
	total	2462	-8.66	≤8.00	PASS
11G-CDD	Ant1	2412	-16.43	≤8.00	PASS
	Ant2	2412	-16.85	≤8.00	PASS
	total	2412	-13.62	≤8.00	PASS
	Ant1	2437	-17.06	≤8.00	PASS
	Ant2	2437	-17.13	≤8.00	PASS
	total	2437	-14.08	≤8.00	PASS
	Ant1	2462	-17.58	≤8.00	PASS
	Ant2	2462	-17.23	≤8.00	PASS
	total	2462	-14.39	≤8.00	PASS
11N20MIMO	Ant1	2412	-19.57	≤8.00	PASS
	Ant2	2412	-20.20	≤8.00	PASS
	total	2412	-16.86	≤8.00	PASS
	Ant1	2437	-19.83	≤8.00	PASS
	Ant2	2437	-20.32	≤8.00	PASS
	total	2437	-17.06	≤8.00	PASS
	Ant1	2462	-20.19	≤8.00	PASS
	Ant2	2462	-20.17	≤8.00	PASS
	total	2462	-17.17	≤8.00	PASS
11AX20MIMO	Ant1	2412	-18.32	≤8.00	PASS
	Ant2	2412	-18.87	≤8.00	PASS
	total	2412	-15.58	≤8.00	PASS
	Ant1	2437	-17.97	≤8.00	PASS
	Ant2	2437	-18.99	≤8.00	PASS
	total	2437	-15.44	≤8.00	PASS
	Ant1	2462	-19.40	≤8.00	PASS
	Ant2	2462	-19.67	≤8.00	PASS
	total	2462	-16.52	≤8.00	PASS

Note：The Duty Cycle Factor is compensated in the graph.

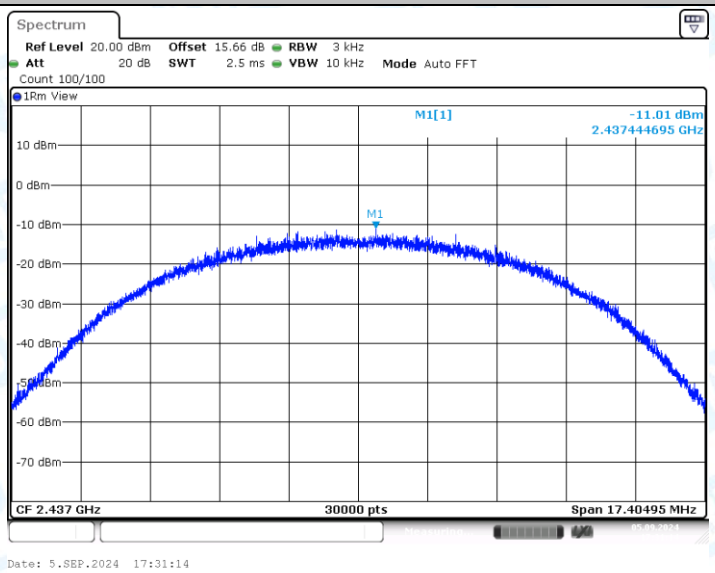
4.2.Test Graphs



11B-CDD_Ant1_2412



11B-CDD_Ant2_2412



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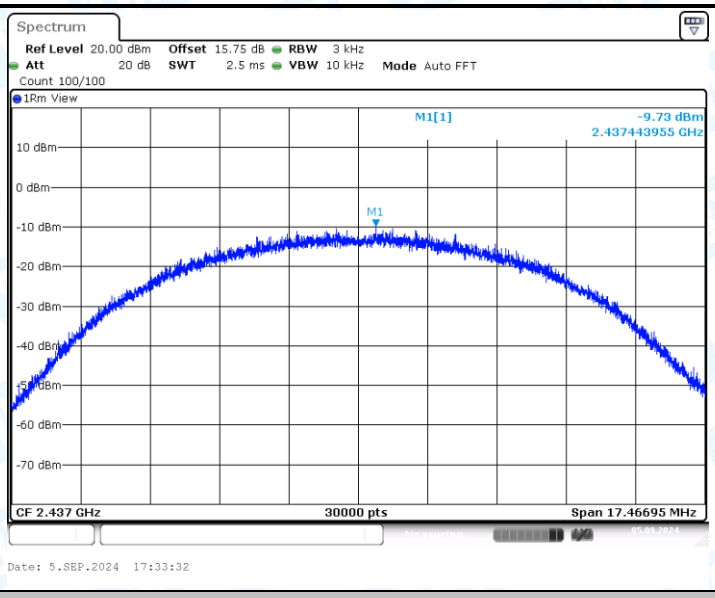
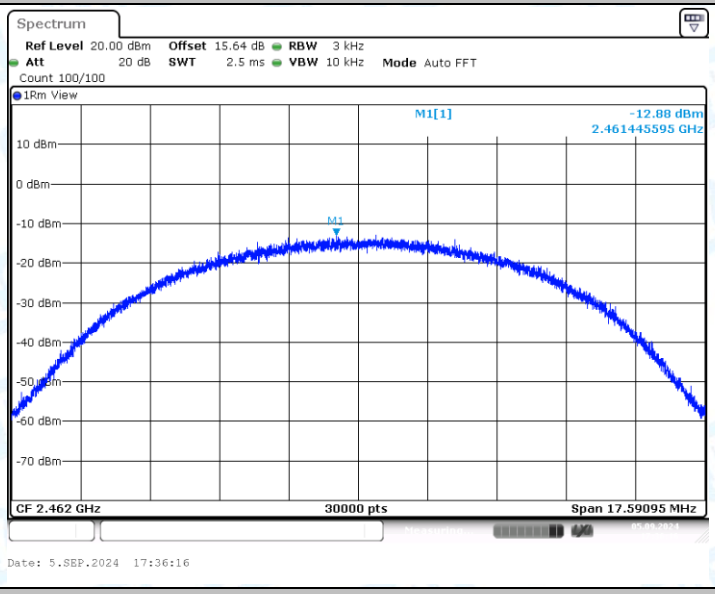


11B-CDD_Ant2_2437



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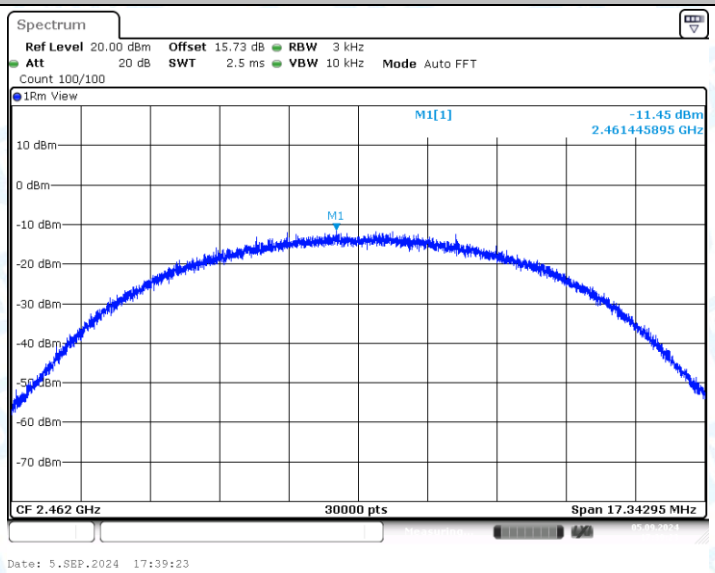
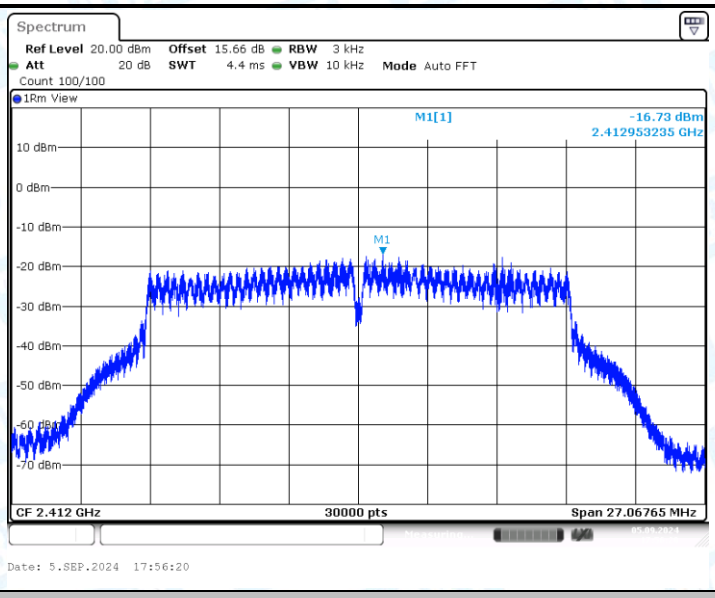
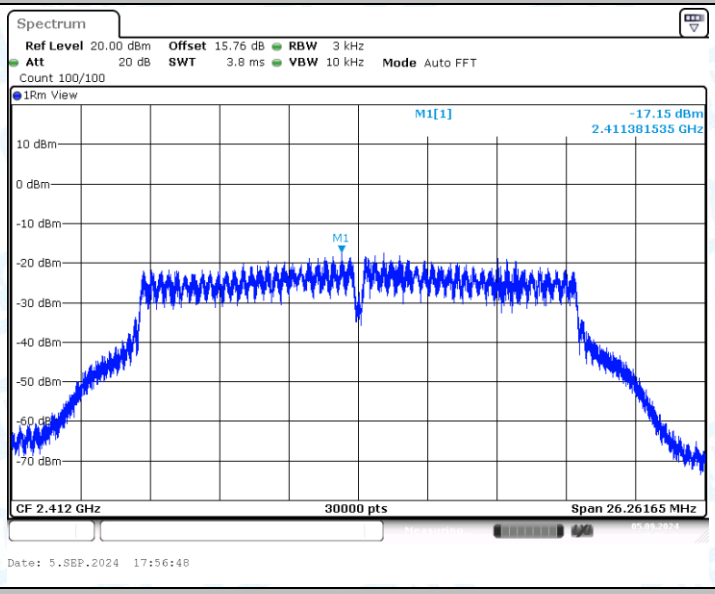


11B-CDD_Ant2_2462



11G-CDD_Ant1_2412



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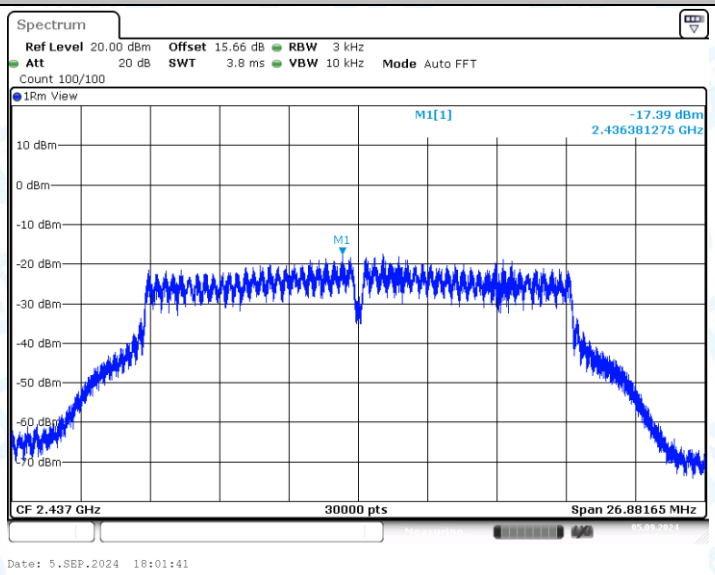

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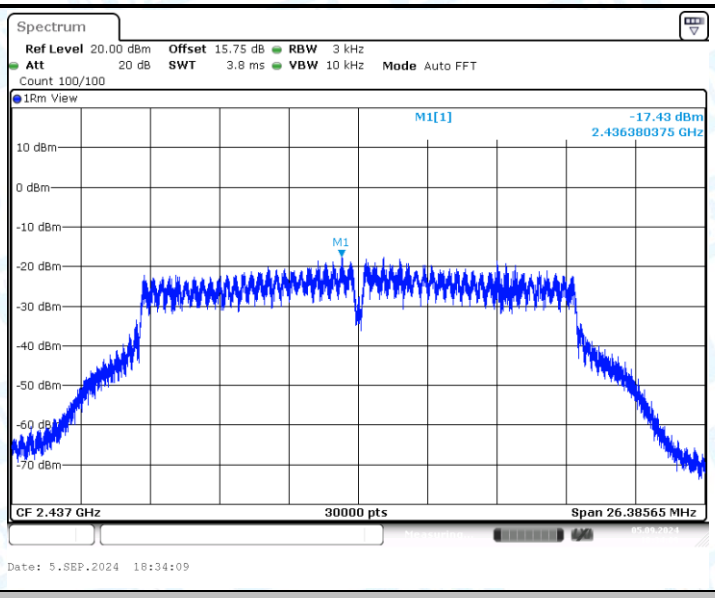

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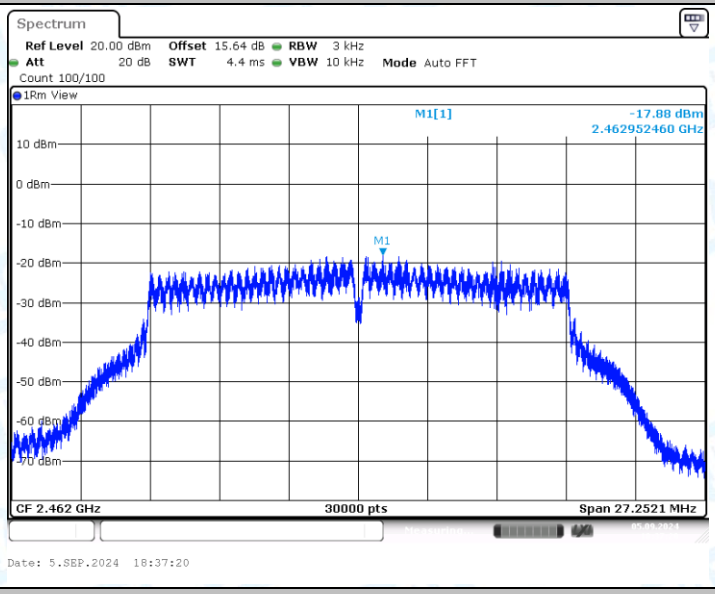

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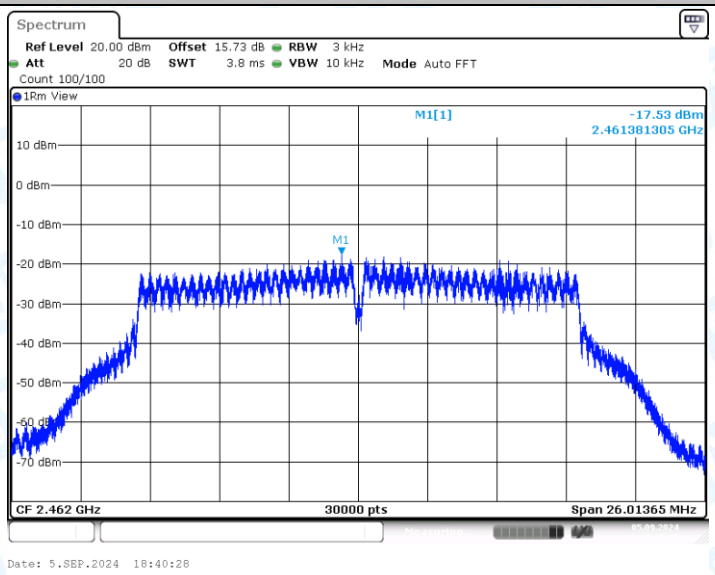

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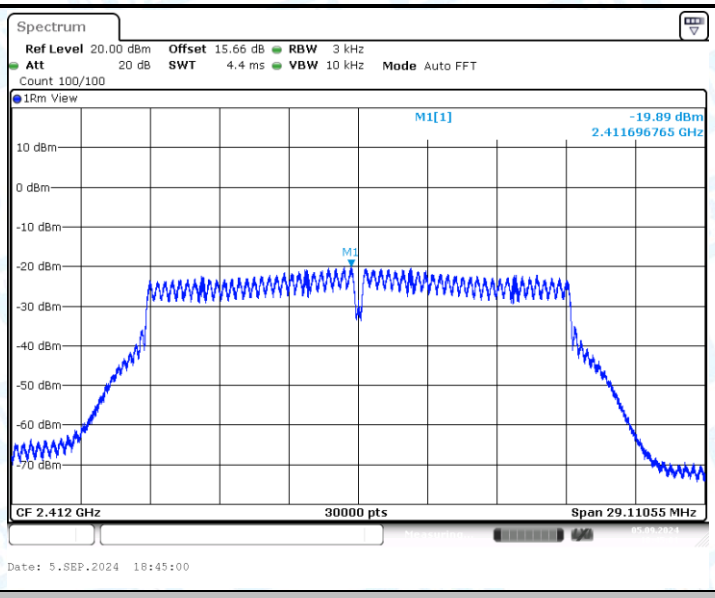
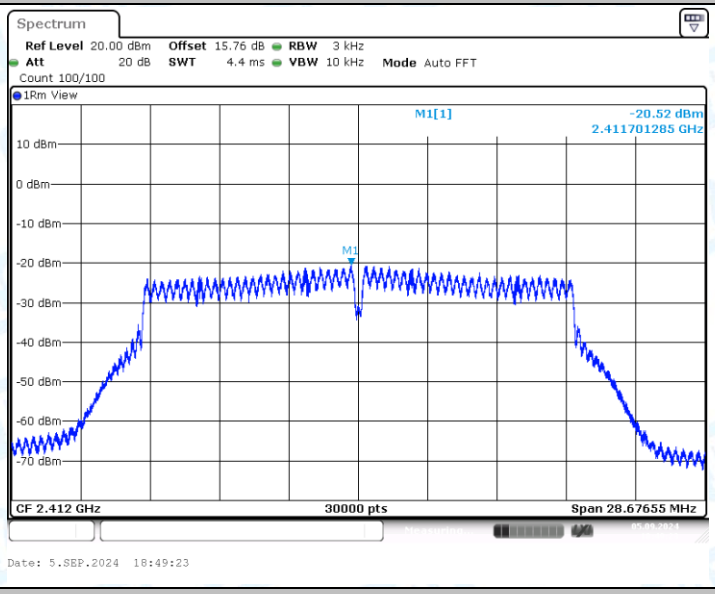
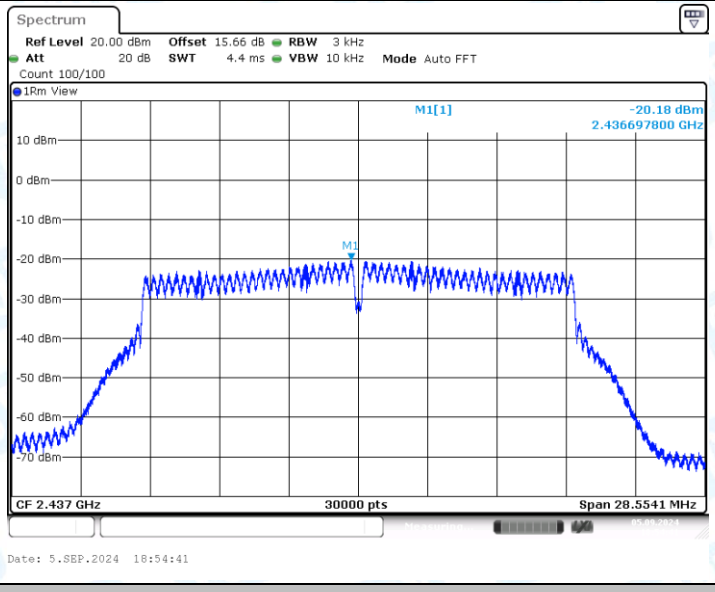


11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



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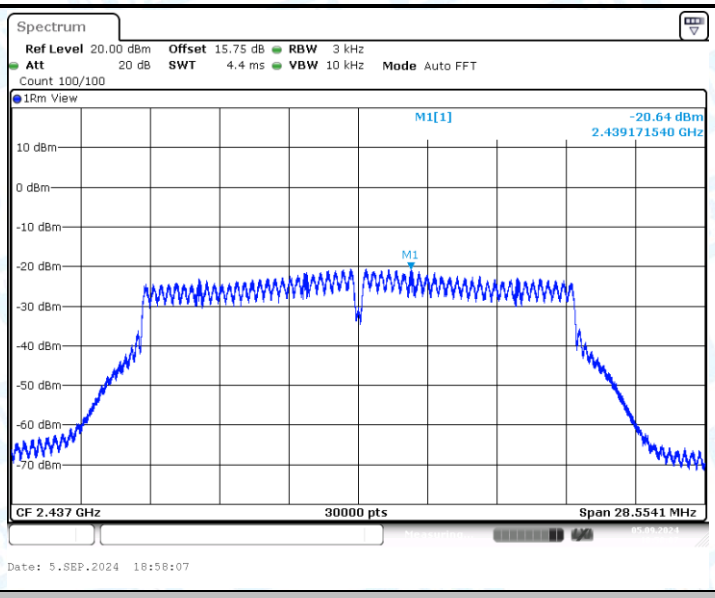

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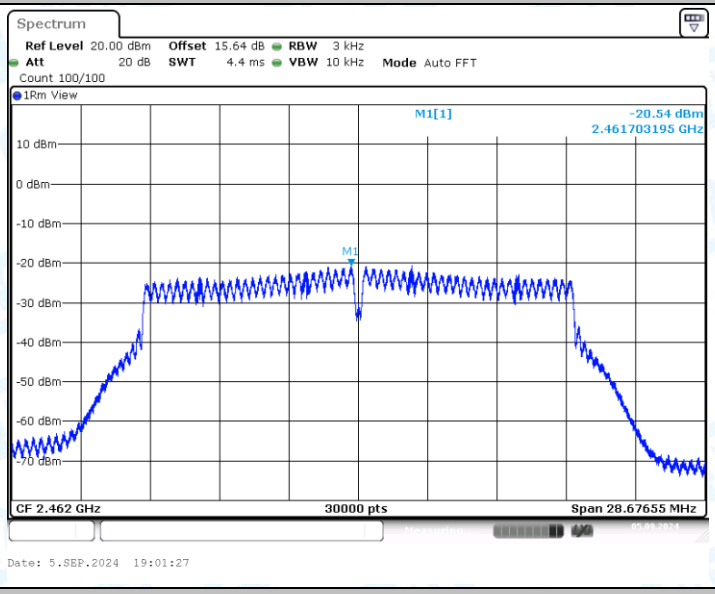

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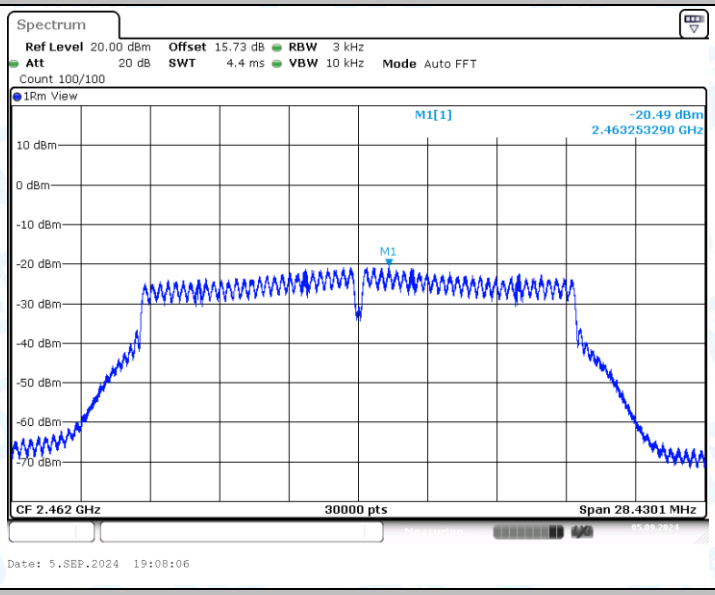

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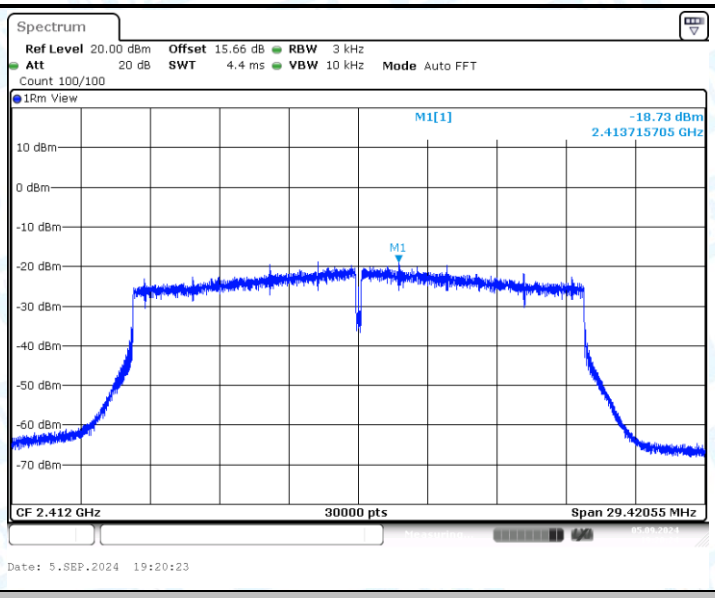
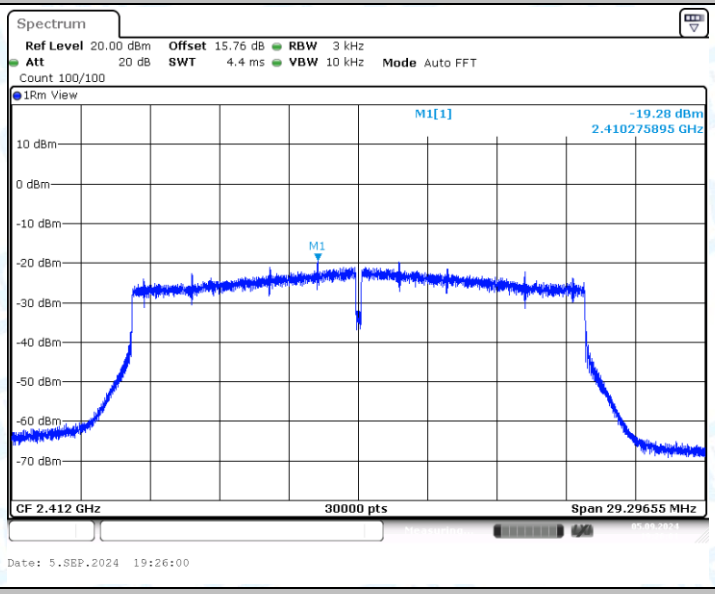


11AX20MIMO_Ant1_2412



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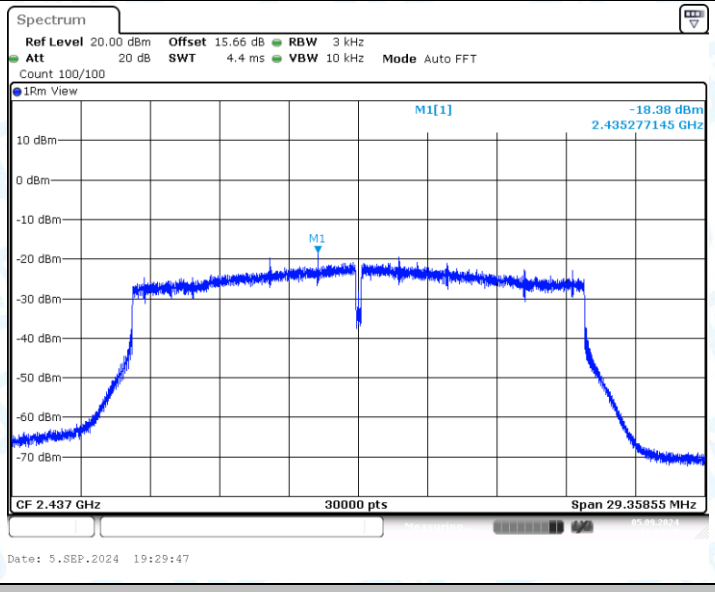
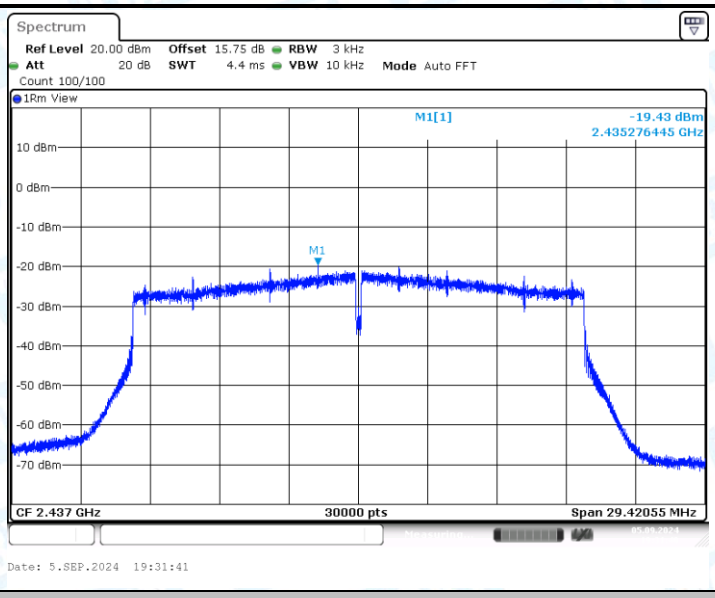


11AX20MIMO_Ant1_2437



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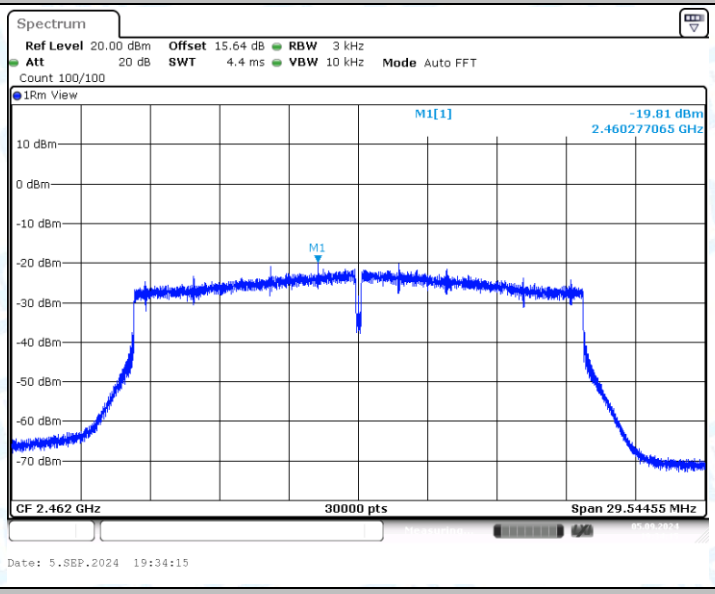
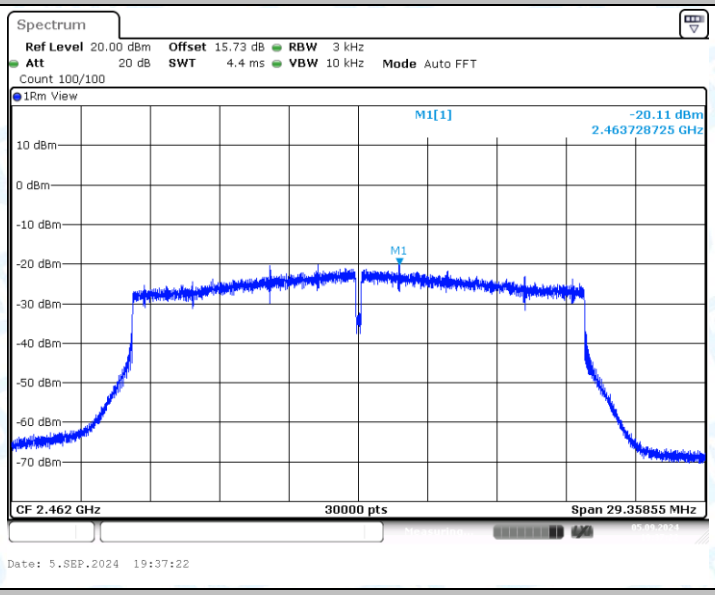


11AX20MIMO_Ant1_2462



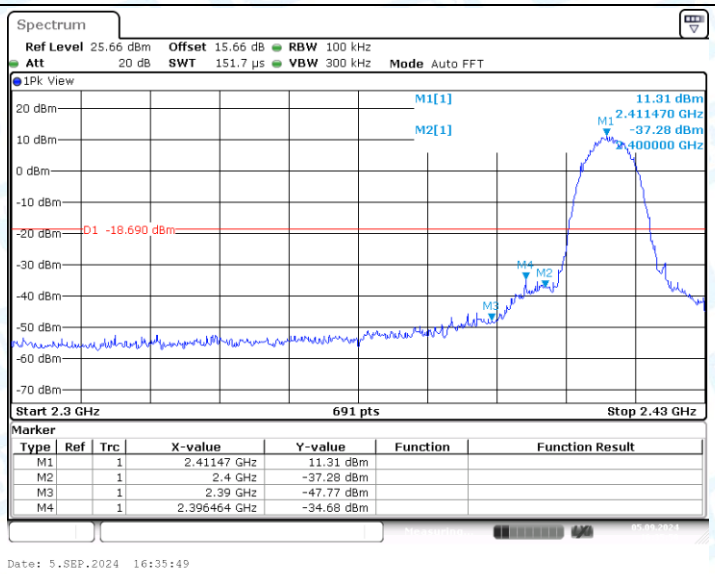
11AX20MIMO_Ant2_2462

5. Band edge measurements

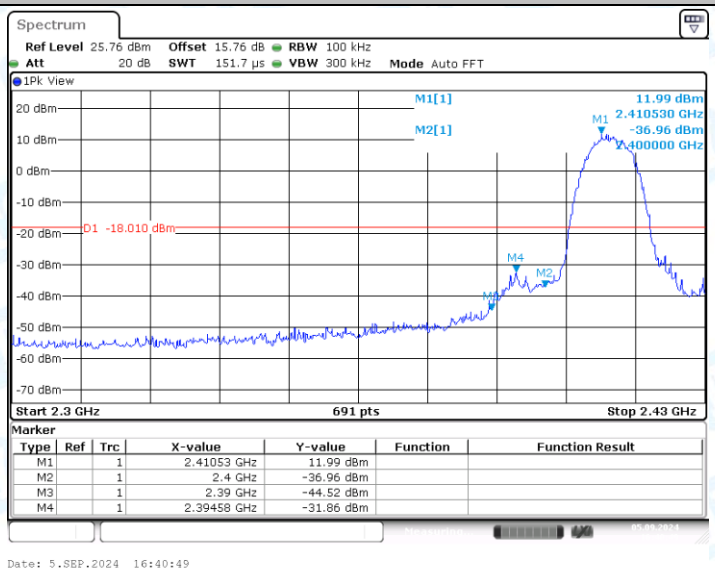
5.1.Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B-CDD	Ant1	Low	2412	11.31	-34.68	≤-18.69	PASS
	Ant2	Low	2412	11.99	-31.86	≤-18.01	PASS
	Ant1	High	2462	9.75	-47.99	≤-20.25	PASS
	Ant2	High	2462	10.84	-44.2	≤-19.16	PASS
11G-CDD	Ant1	Low	2412	1.70	-35.67	≤-28.3	PASS
	Ant2	Low	2412	2.22	-37.04	≤-27.78	PASS
	Ant1	High	2462	0.54	-50.15	≤-29.46	PASS
	Ant2	High	2462	0.07	-49.9	≤-29.93	PASS
11N20MIMO	Ant1	Low	2412	1.35	-37.74	≤-28.65	PASS
	Ant2	Low	2412	-0.26	-39.12	≤-30.26	PASS
	Ant1	High	2462	0.21	-50.95	≤-29.79	PASS
	Ant2	High	2462	-0.99	-47.58	≤-30.99	PASS
11AX20MIMO	Ant1	Low	2412	2.05	-36.66	≤-27.95	PASS
	Ant2	Low	2412	1.94	-37	≤-28.06	PASS
	Ant1	High	2462	0.69	-48.2	≤-29.31	PASS
	Ant2	High	2462	0.86	-45.98	≤-29.14	PASS

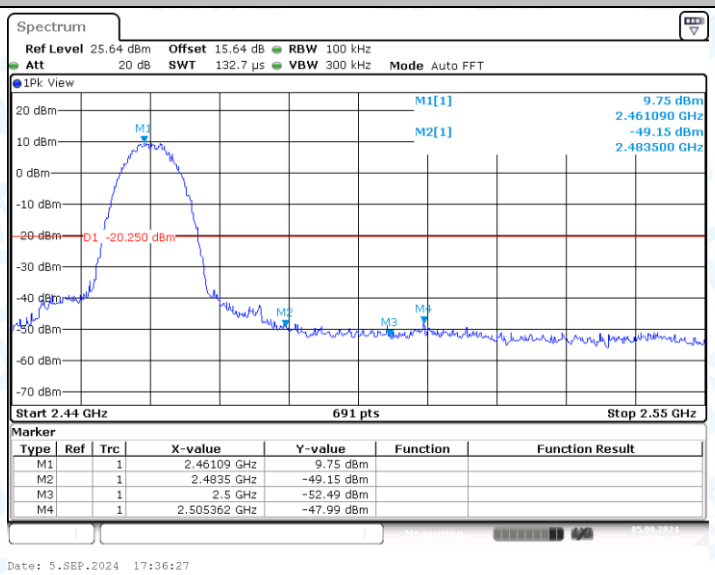
5.2.Test Graphs



11B-CDD_Ant1_Low_2412



11B-CDD_Ant2_Low_2412



11B-CDD_Ant1_High_2462