

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

General Description of EUT	
Product Name:	Lixel L2 300 V1
Test Model:	Lixel
Sample ID:	HC-C-202309-0278-02-02-2#
Environmental Conditions	
Temperature:	24 °C
Relative Humidity:	50%
Test Voltage:	DC 14.4V
Test Engineer:	Liyingjing
Note: For a more detailed features description, please refer to the report TBR-C-202309-0278-32 The report only show the worst case data.	

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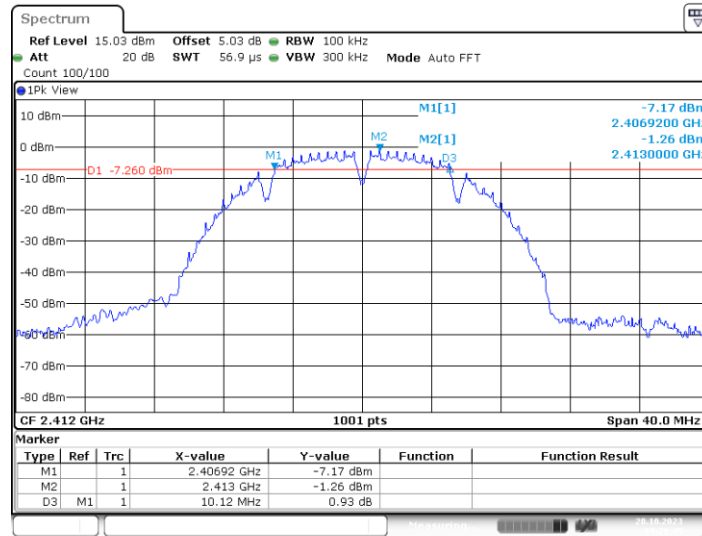
1. DTS Bandwidth

1.1. Test Result

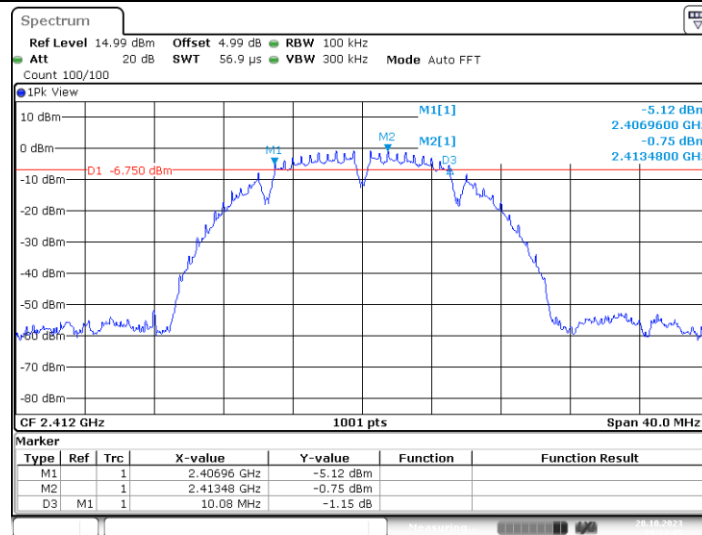
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.12	2406.92	2417.04	0.5	PASS
	Ant2	2412	10.08	2406.96	2417.04	0.5	PASS
	Ant1	2437	10.08	2431.96	2442.04	0.5	PASS
	Ant2	2437	10.12	2431.92	2442.04	0.5	PASS
	Ant1	2462	10.08	2456.96	2467.04	0.5	PASS
	Ant2	2462	10.12	2456.92	2467.04	0.5	PASS
11G	Ant1	2412	16.40	2403.80	2420.20	0.5	PASS
	Ant2	2412	16.32	2403.84	2420.16	0.5	PASS
	Ant1	2437	16.36	2428.80	2445.16	0.5	PASS
	Ant2	2437	16.36	2428.80	2445.16	0.5	PASS
	Ant1	2462	16.36	2453.80	2470.16	0.5	PASS
	Ant2	2462	15.80	2454.08	2469.88	0.5	PASS
11N20MIMO	Ant1	2412	17.60	2403.20	2420.80	0.5	PASS
	Ant2	2412	17.60	2403.20	2420.80	0.5	PASS
	Ant1	2437	17.56	2428.20	2445.76	0.5	PASS
	Ant2	2437	14.84	2429.72	2444.56	0.5	PASS
	Ant1	2462	17.56	2453.20	2470.76	0.5	PASS
	Ant2	2462	17.60	2453.20	2470.80	0.5	PASS
11N40MIMO	Ant1	2422	35.92	2404.08	2440.00	0.5	PASS
	Ant2	2422	35.52	2404.08	2439.60	0.5	PASS
	Ant1	2437	35.12	2419.40	2454.52	0.5	PASS
	Ant2	2437	35.04	2419.56	2454.60	0.5	PASS
	Ant1	2452	35.36	2434.40	2469.76	0.5	PASS
	Ant2	2452	36.32	2433.84	2470.16	0.5	PASS

1.2. Test Graphs

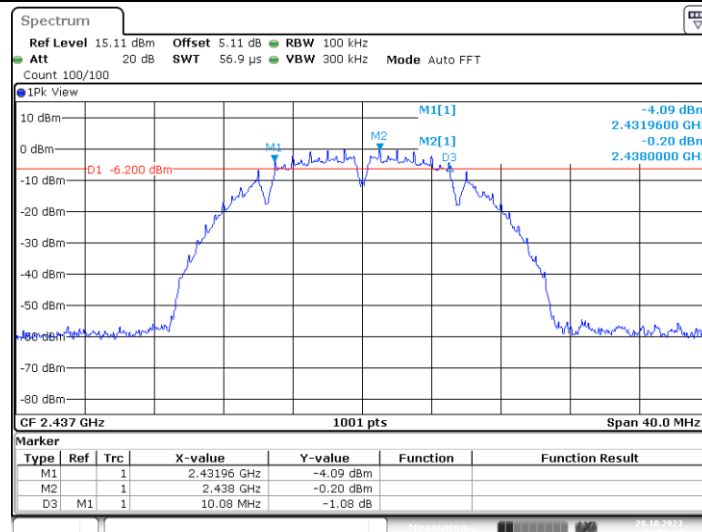
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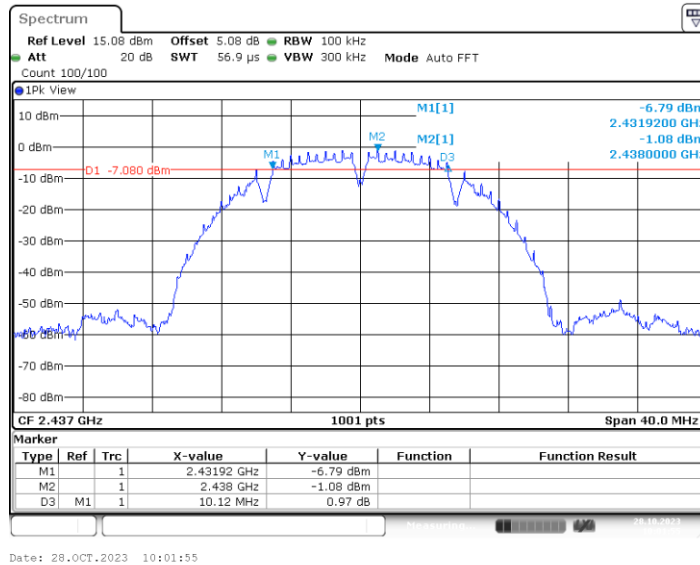
11B_Ant2_2412



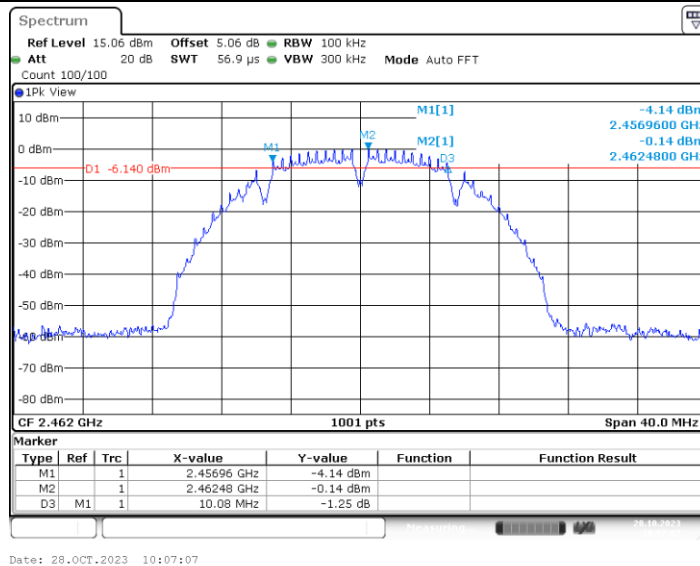
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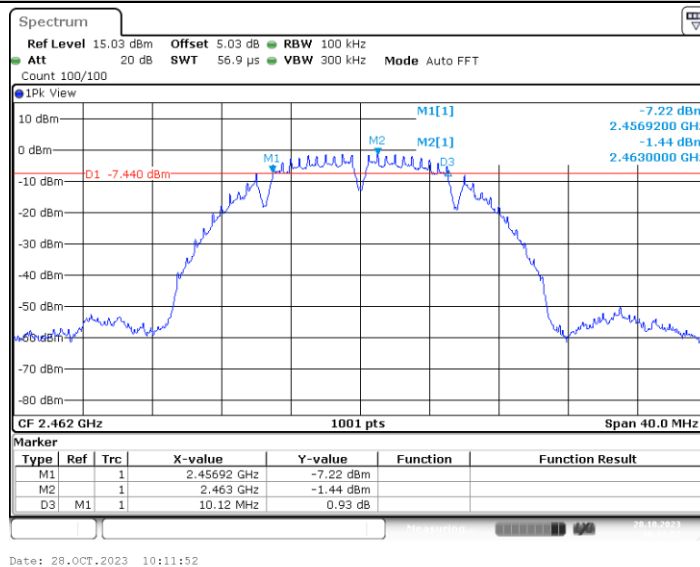
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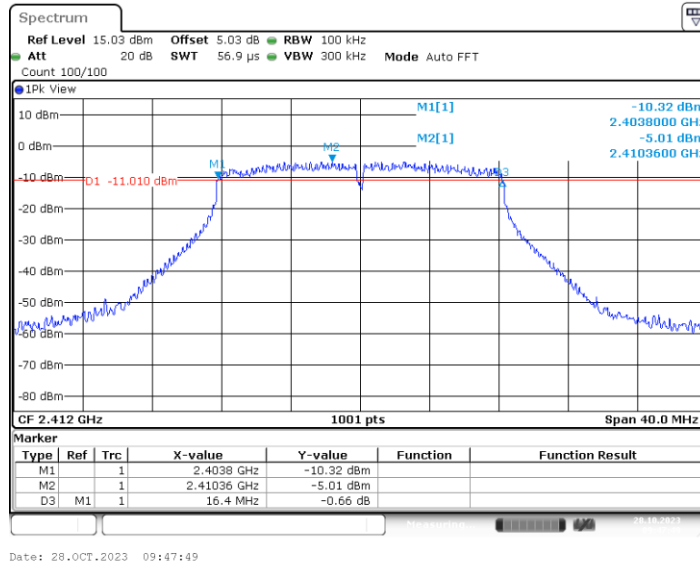
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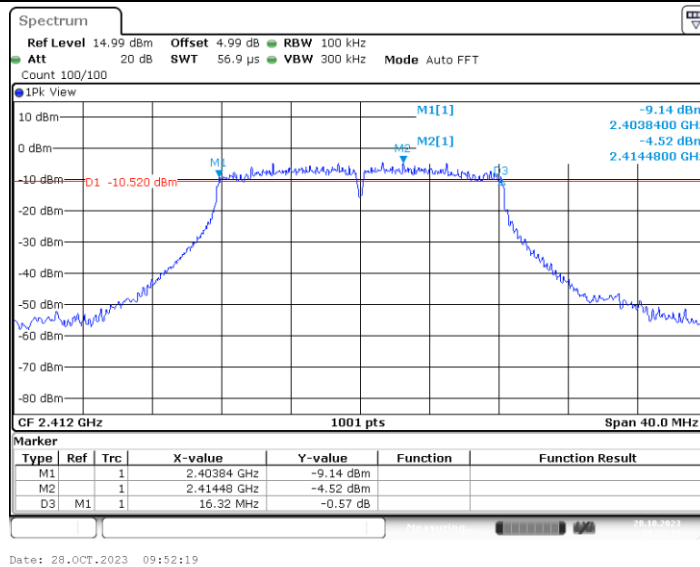
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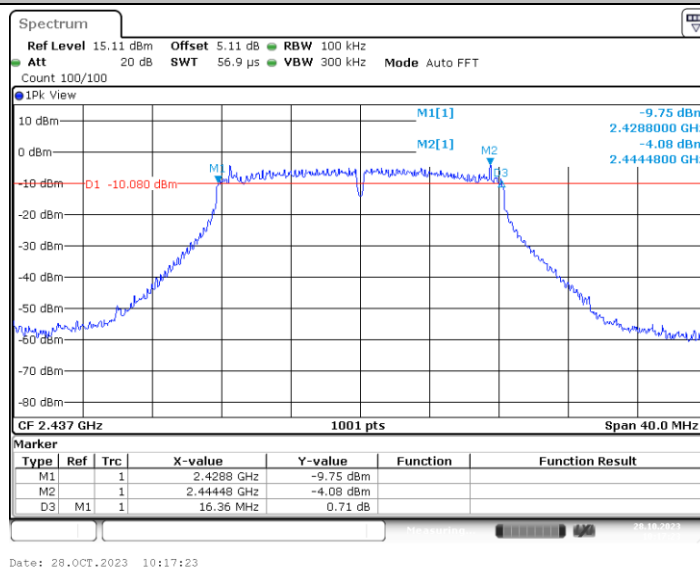
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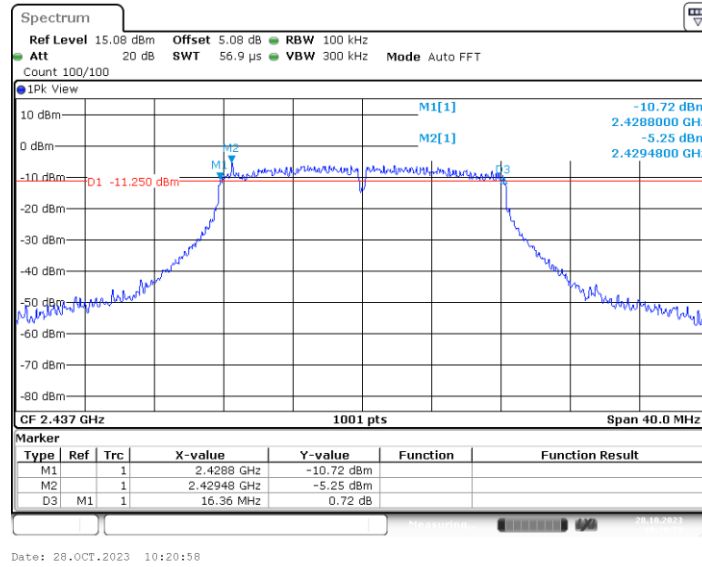
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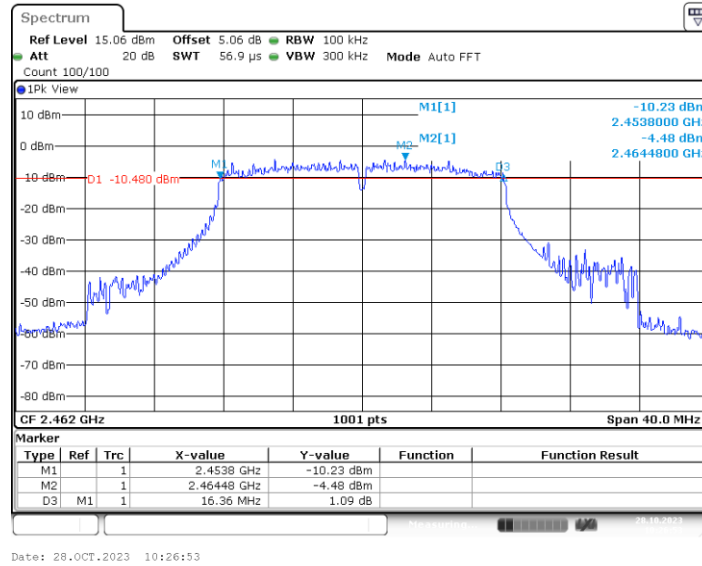
11G_Ant1_2437



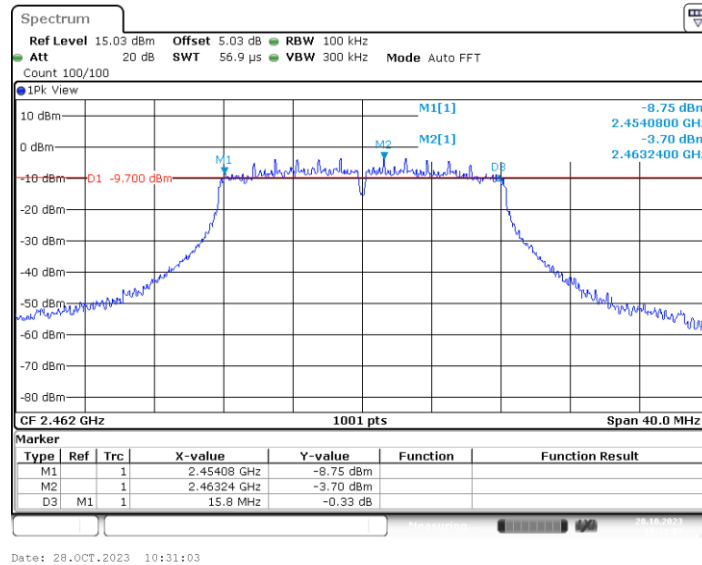
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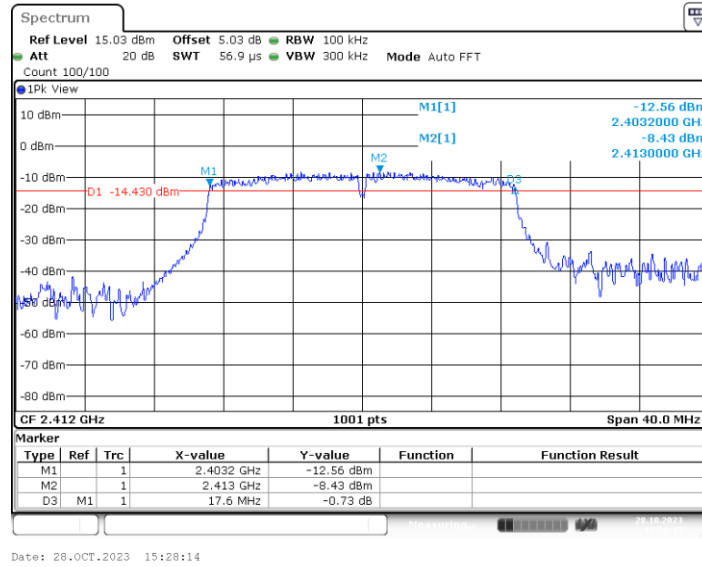
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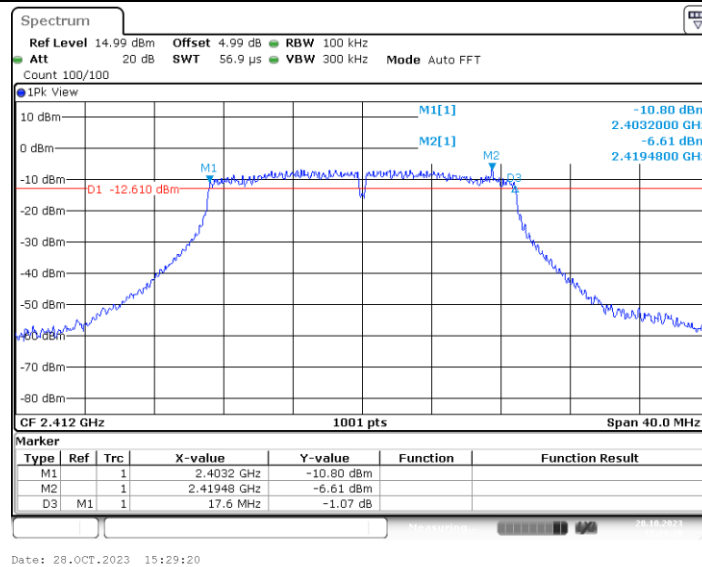
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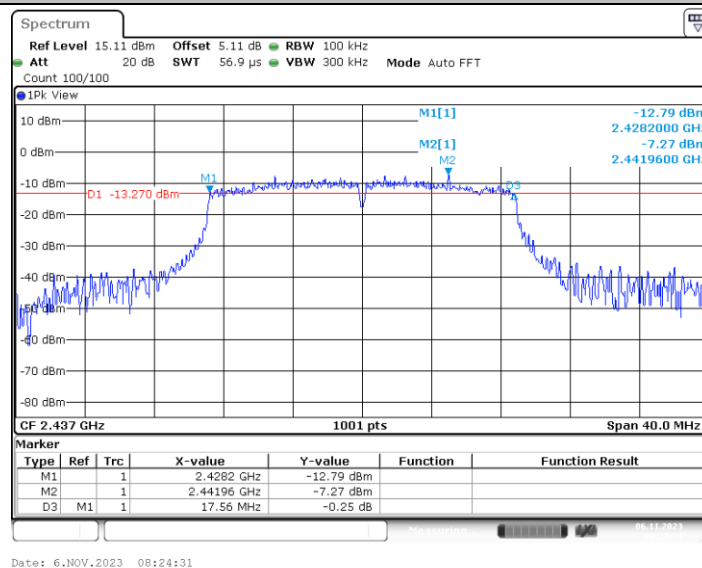
11N20MIMO_Ant1_2412



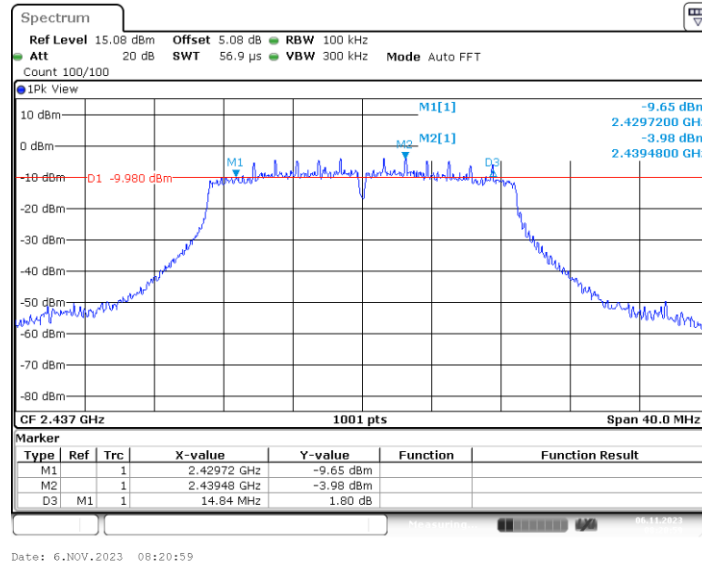
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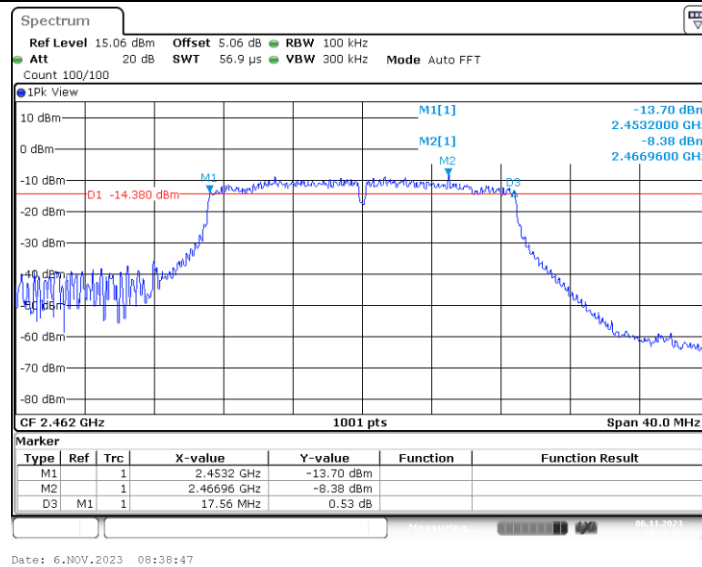
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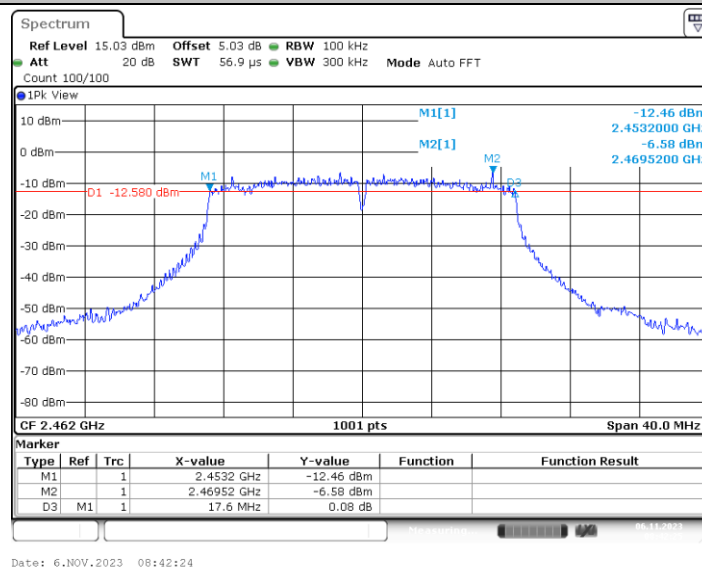
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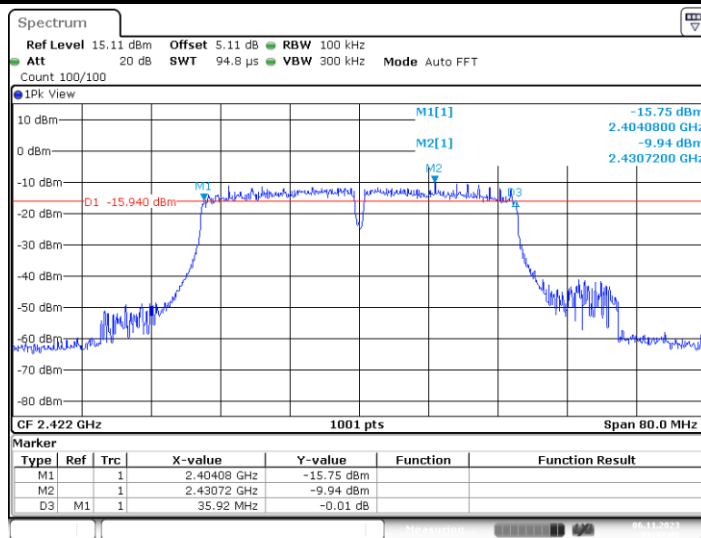
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11N20MIMO_Ant2_2462

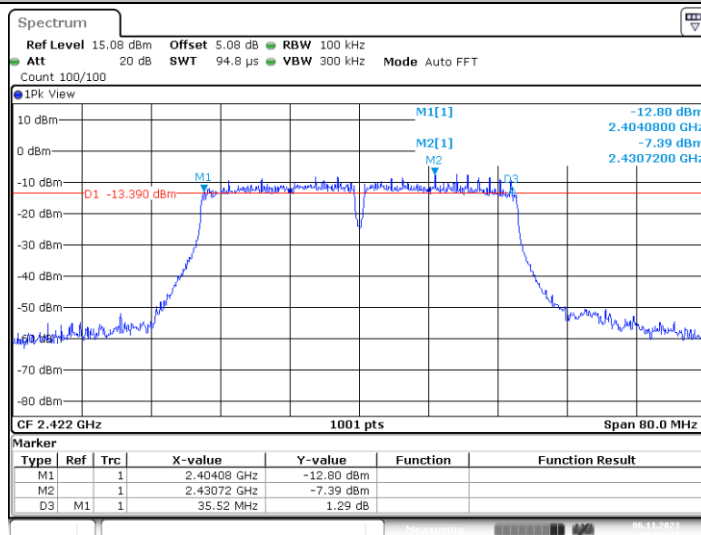


11N40MIMO_Ant1_2422



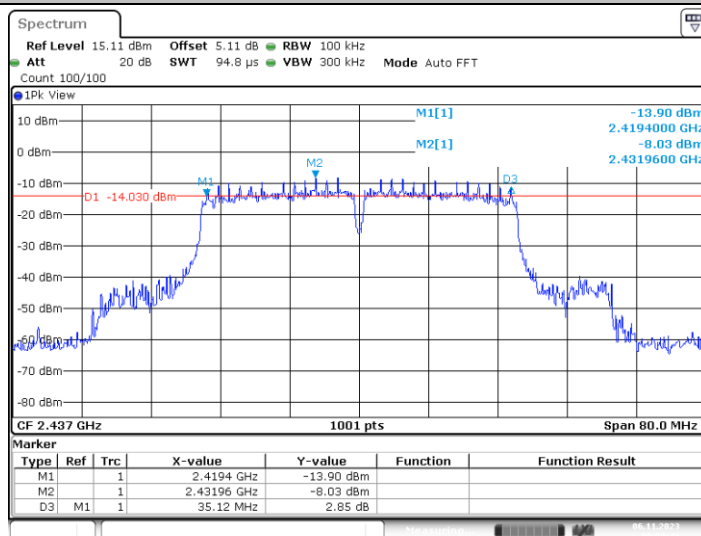
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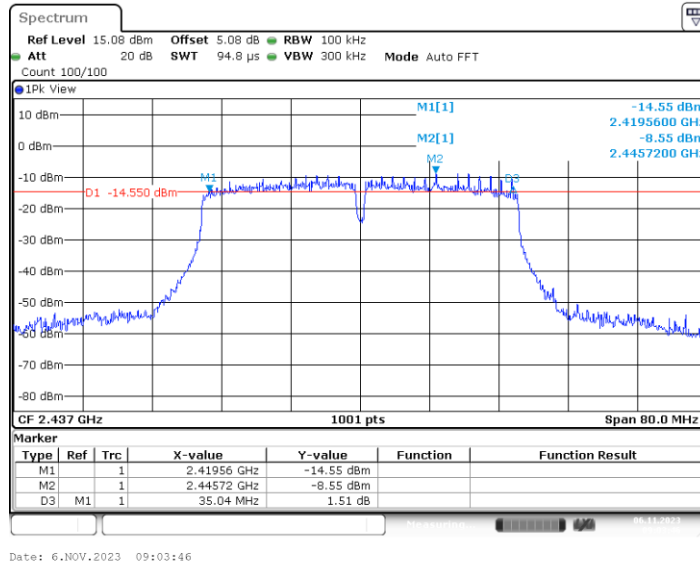
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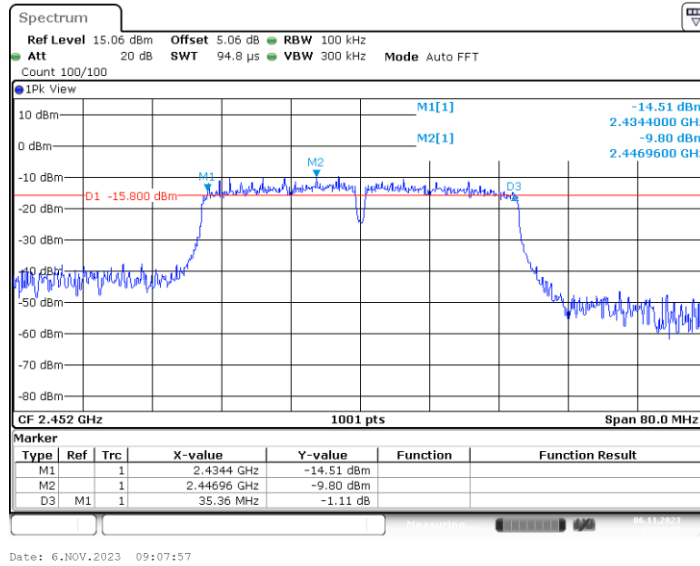


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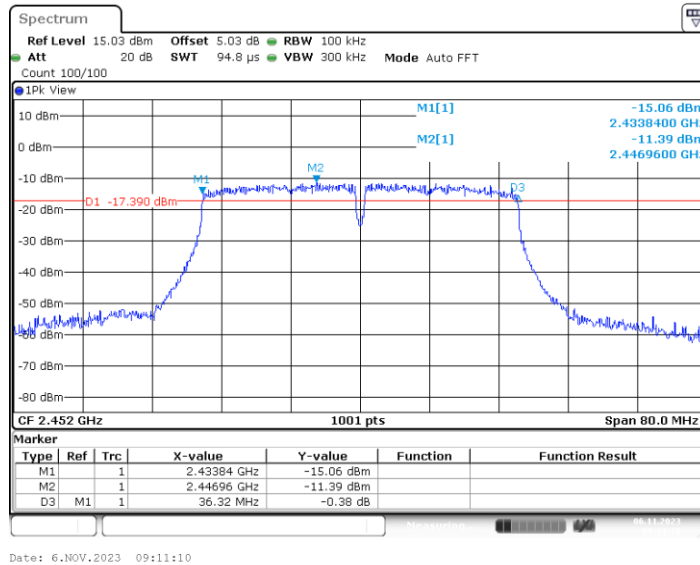
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11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



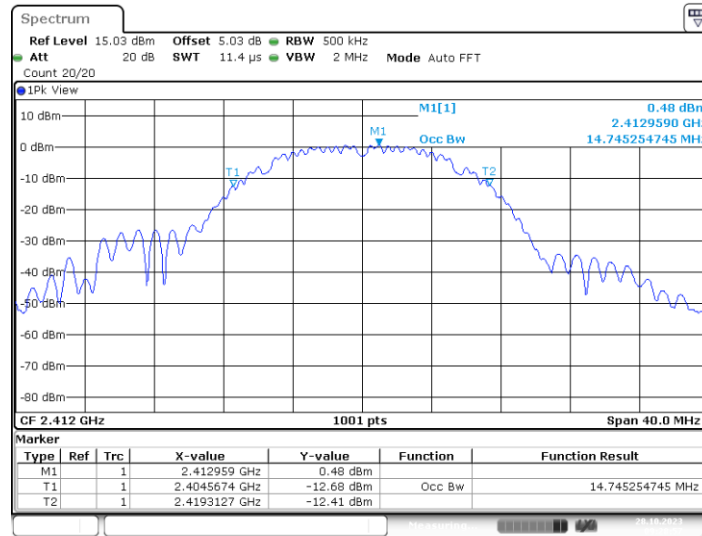
2. Occupied Channel Bandwidth

2.1. Test Result

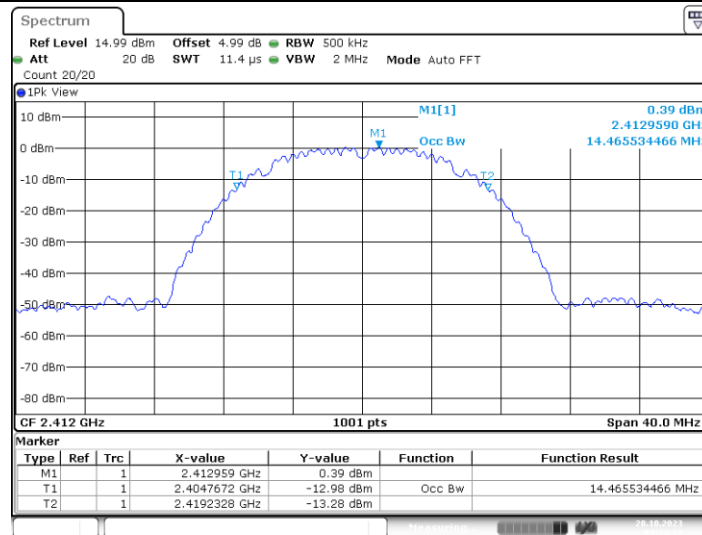
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.745	2404.5674	2419.3127	---	---
	Ant2	2412	14.466	2404.7672	2419.2328	---	---
	Ant1	2437	14.505	2429.7672	2444.2727	---	---
	Ant2	2437	14.625	2429.6873	2444.3127	---	---
	Ant1	2462	14.905	2454.6474	2469.5524	---	---
	Ant2	2462	14.585	2454.6873	2469.2727	---	---
11G	Ant1	2412	16.903	2403.6084	2420.5115	---	---
	Ant2	2412	17.023	2403.4885	2420.5115	---	---
	Ant1	2437	16.663	2428.6484	2445.3117	---	---
	Ant2	2437	16.983	2428.6084	2445.5914	---	---
	Ant1	2462	16.743	2453.6084	2470.3516	---	---
	Ant2	2462	16.823	2453.6084	2470.4316	---	---
11N20MIMO	Ant1	2412	17.942	2403.0490	2420.9910	---	---
	Ant2	2412	18.022	2402.8891	2420.9111	---	---
	Ant1	2437	18.022	2428.0090	2446.0310	---	---
	Ant2	2437	17.902	2428.0490	2445.9510	---	---
	Ant1	2462	18.142	2452.9690	2471.1109	---	---
	Ant2	2462	18.102	2453.0490	2471.1508	---	---
11N40MIMO	Ant1	2422	36.523	2403.5385	2440.0619	---	---
	Ant2	2422	36.204	2403.7782	2439.9820	---	---
	Ant1	2437	36.284	2418.9381	2455.2218	---	---
	Ant2	2437	36.204	2418.8581	2455.0619	---	---
	Ant1	2452	36.284	2433.7782	2470.0619	---	---
	Ant2	2452	36.523	2433.6184	2470.1419	---	---

2.2. Test Graphs

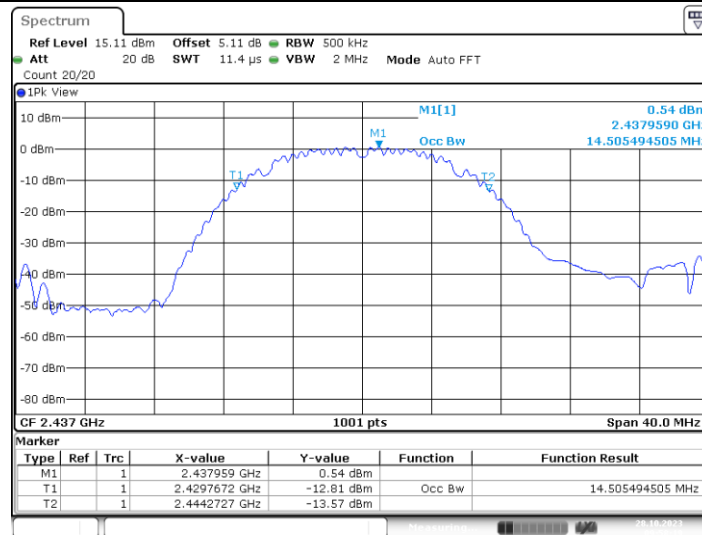
11B_Ant1_2412



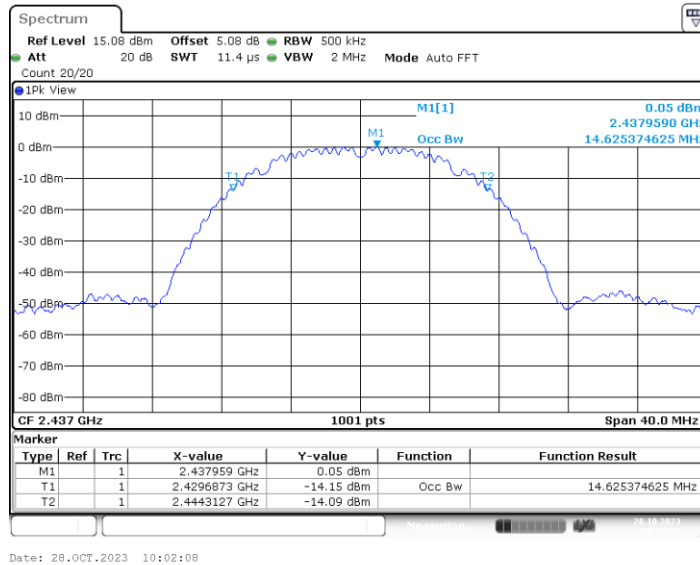
11B_Ant2_2412



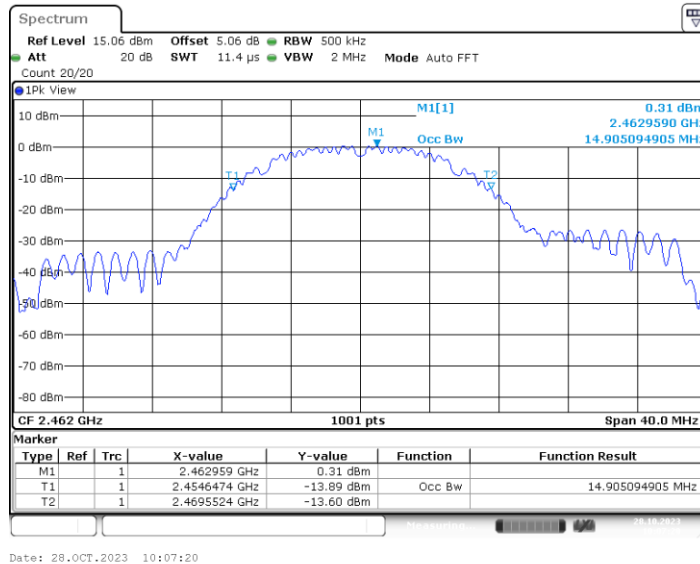
11B_Ant1_2437



11B_Ant2_2437



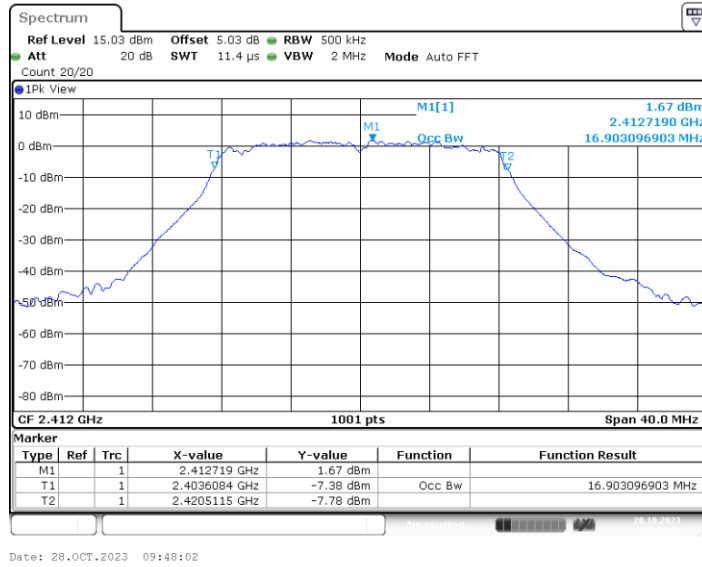
11B_Ant1_2462



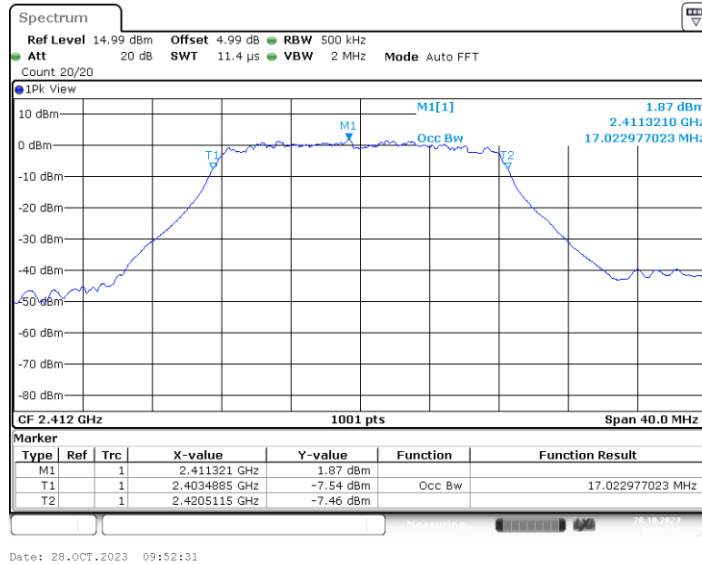
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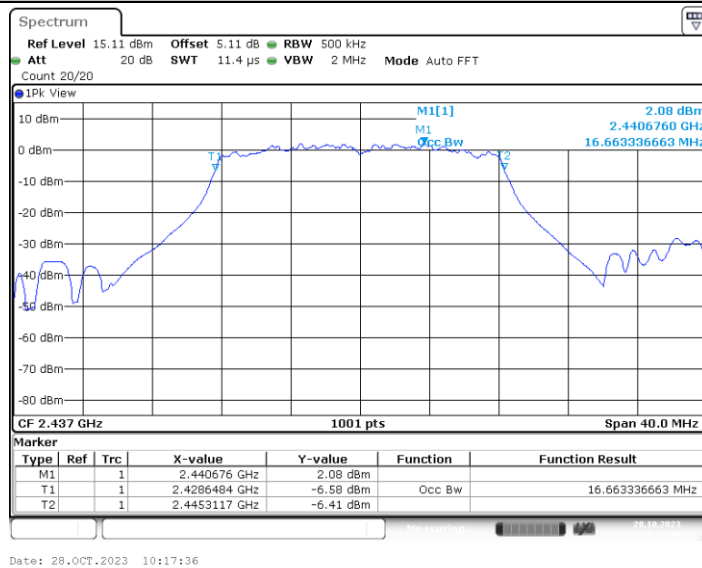
11G_Ant1_2412



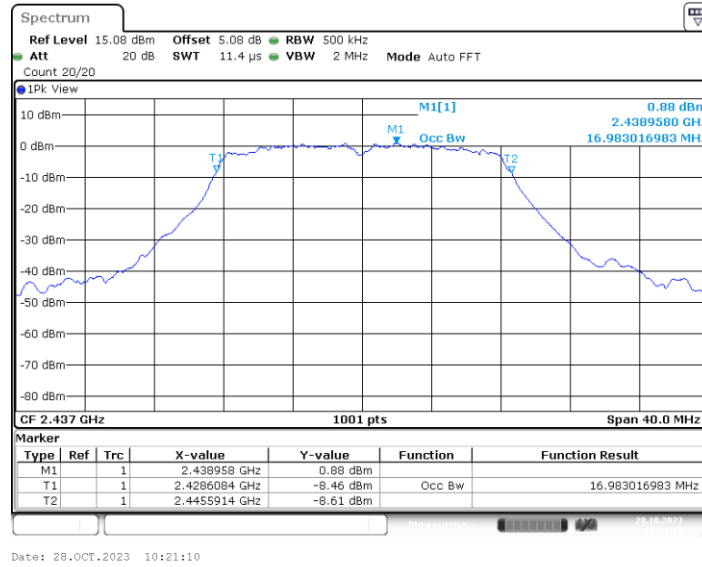
11G_Ant2_2412



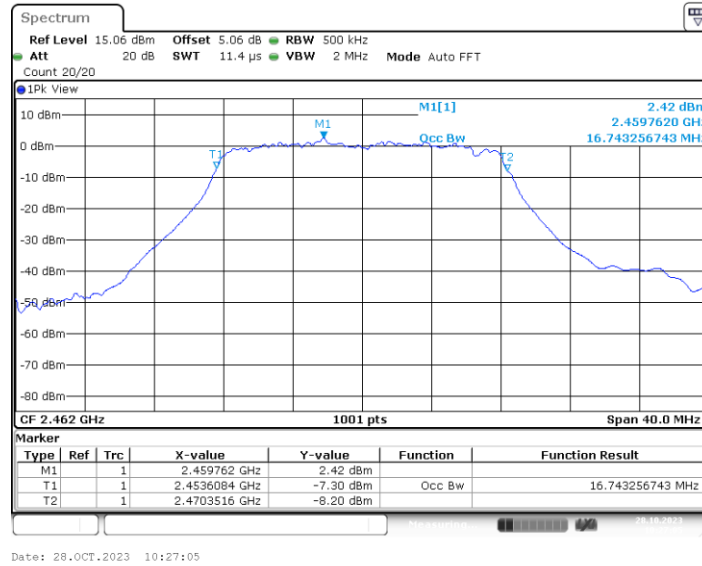
11G_Ant1_2437



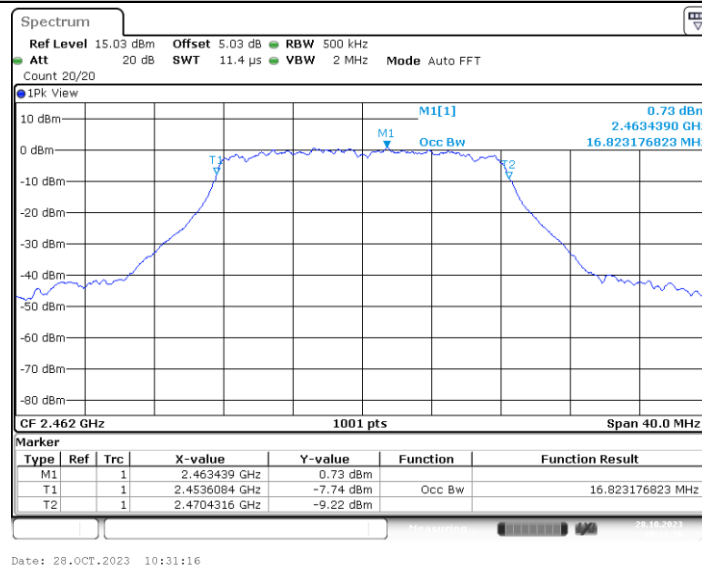
11G_Ant2_2437



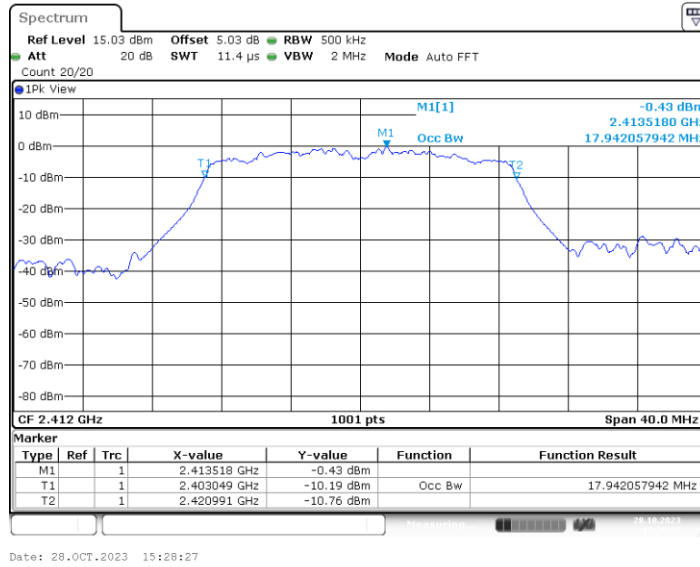
11G_Ant1_2462



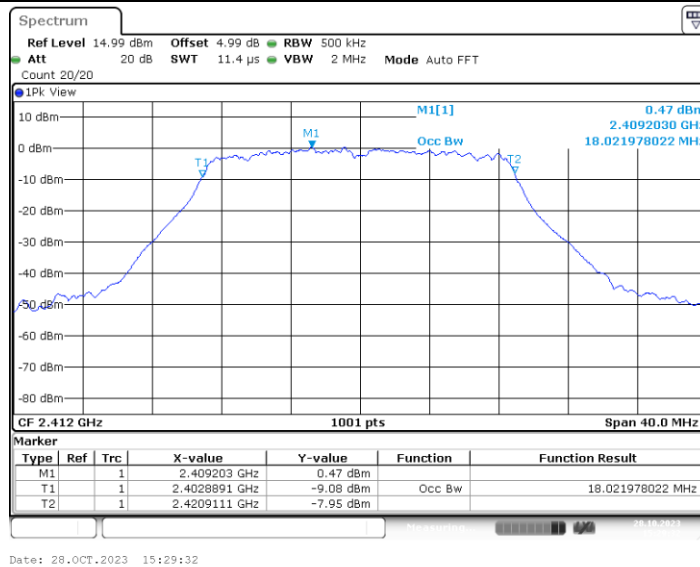
11G_Ant2_2462



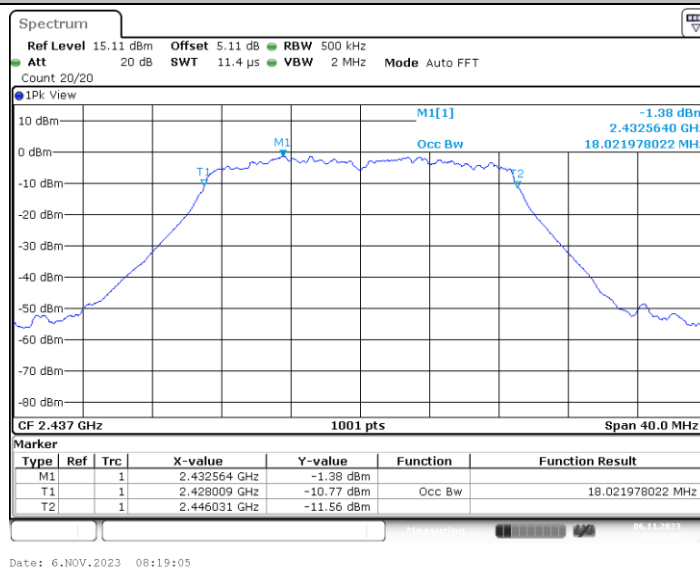
11N20MIMO_Ant1_2412



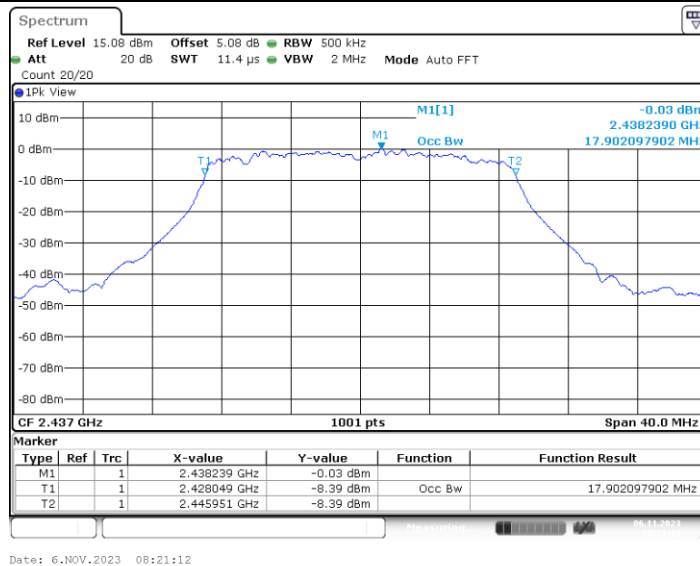
11N20MIMO_Ant2_2412



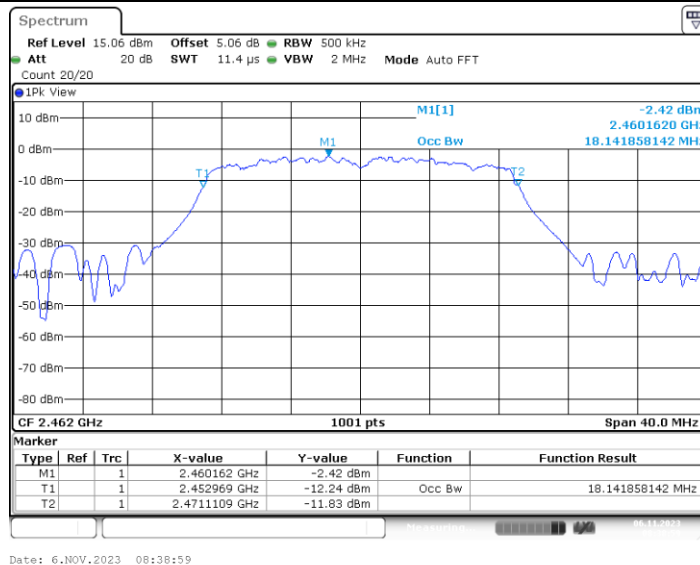
11N20MIMO_Ant1_2437



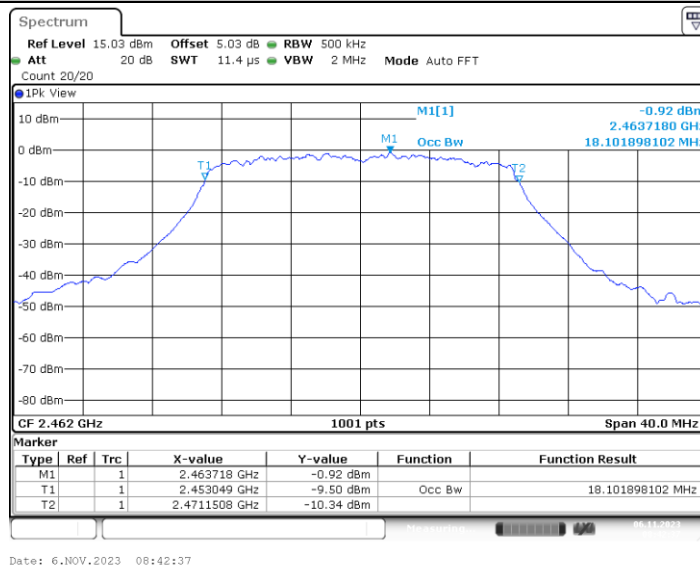
11N20MIMO_Ant2_2437



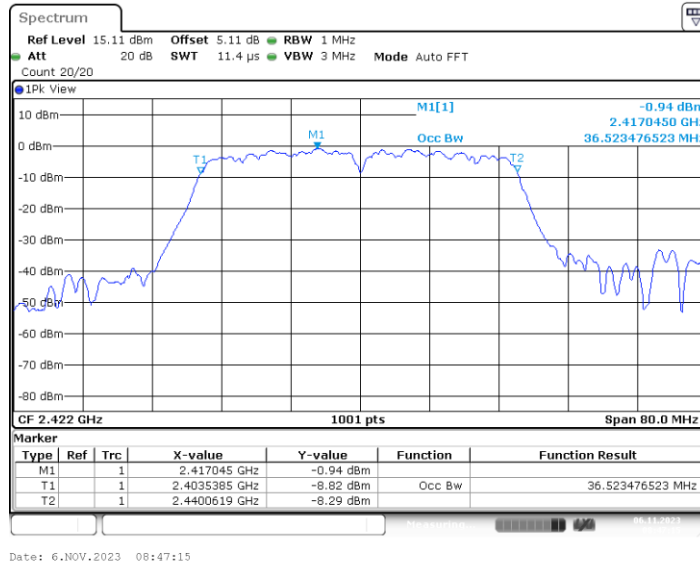
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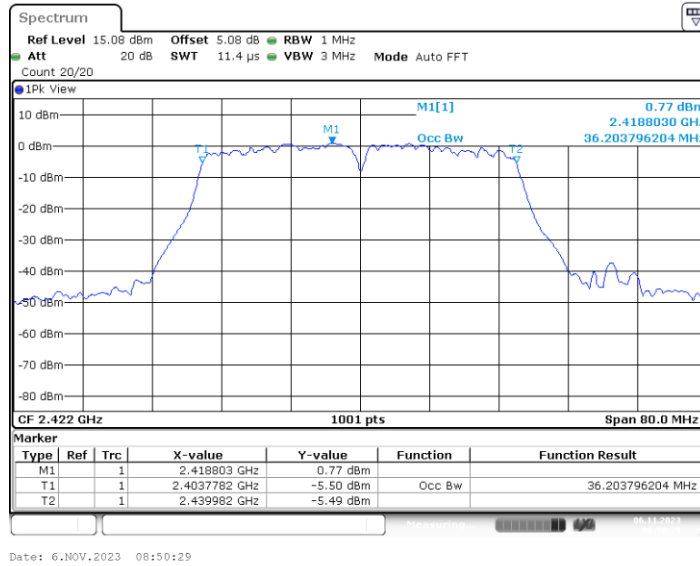
11N20MIMO_Ant2_2462



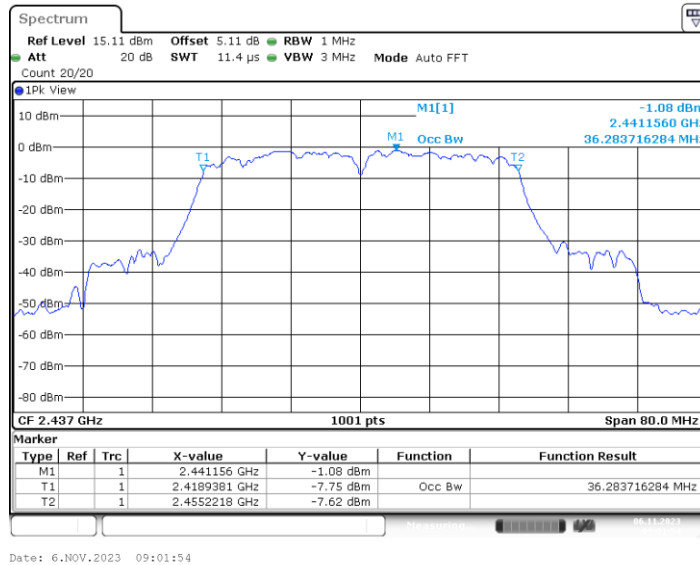
11N40MIMO_Ant1_2422



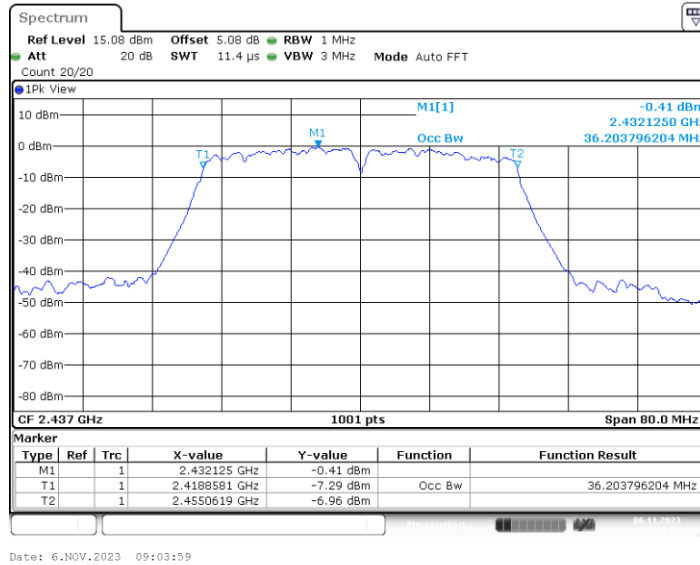
11N40MIMO_Ant2_2422



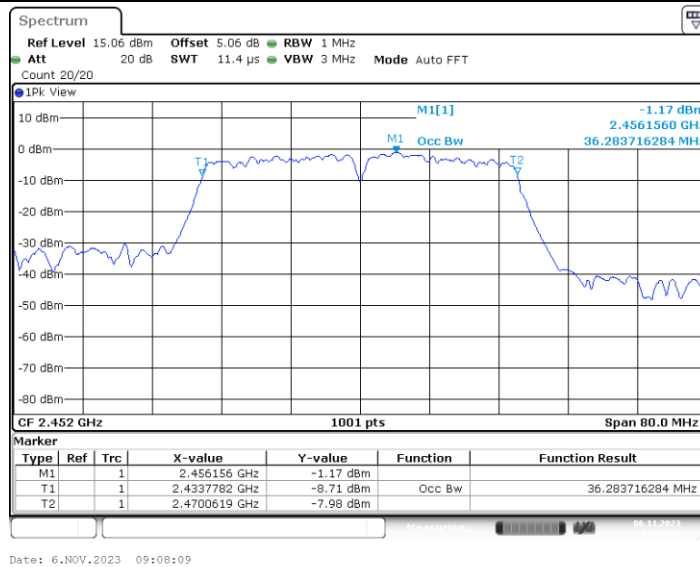
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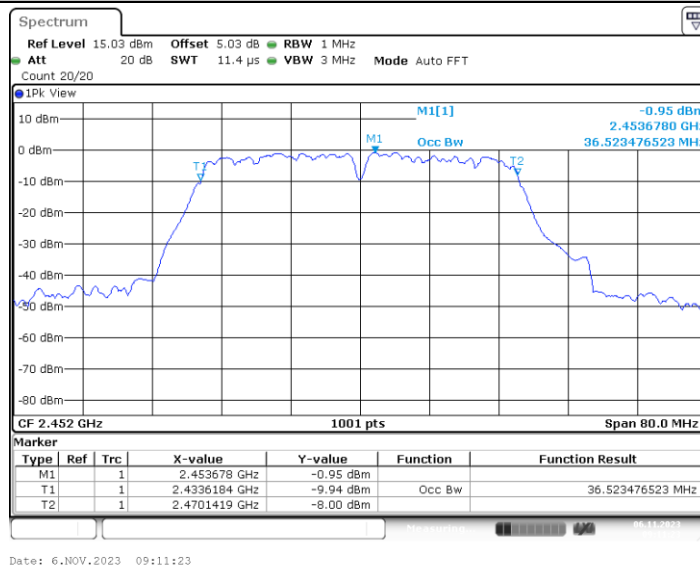
11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



3. Maximum conducted output power

3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	7.56	≤30.00	PASS
	Ant2	2412	7.35	≤30.00	PASS
	Ant1	2437	7.20	≤30.00	PASS
	Ant2	2437	7.52	≤30.00	PASS
	Ant1	2462	7.57	≤30.00	PASS
	Ant2	2462	7.09	≤30.00	PASS
11G	Ant1	2412	7.24	≤30.00	PASS
	Ant2	2412	7.20	≤30.00	PASS
	Ant1	2437	7.09	≤30.00	PASS
	Ant2	2437	7.38	≤30.00	PASS
	Ant1	2462	7.00	≤30.00	PASS
	Ant2	2462	8.03	≤30.00	PASS
11N20MIMO	Ant1	2412	6.08	≤30.00	PASS
	Ant2	2412	7.55	≤30.00	PASS
	total	2412	9.89	≤30.00	PASS
	Ant1	2437	6.01	≤30.00	PASS
	Ant2	2437	7.43	≤30.00	PASS
	total	2437	9.79	≤30.00	PASS
	Ant1	2462	5.27	≤30.00	PASS
	Ant2	2462	6.57	≤30.00	PASS
	total	2462	8.98	≤30.00	PASS
11N40MIMO	Ant1	2422	6.13	≤30.00	PASS
	Ant2	2422	7.55	≤30.00	PASS
	total	2422	9.91	≤30.00	PASS
	Ant1	2437	6.06	≤30.00	PASS
	Ant2	2437	7.07	≤30.00	PASS
	total	2437	9.60	≤30.00	PASS
	Ant1	2452	6.02	≤30.00	PASS
	Ant2	2452	6.77	≤30.00	PASS
	total	2452	9.42	≤30.00	PASS

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

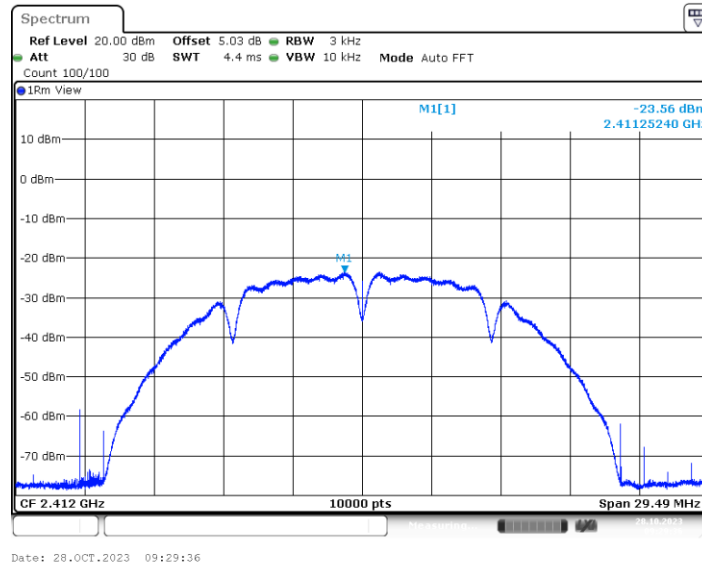
4. Maximum power spectral density

4.1. Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-23.56	≤8.00	PASS
	Ant2	2412	-23.46	≤8.00	PASS
	Ant1	2437	-23.25	≤8.00	PASS
	Ant2	2437	-23.78	≤8.00	PASS
	Ant1	2462	-23.13	≤8.00	PASS
	Ant2	2462	-24.04	≤8.00	PASS
11G	Ant1	2412	-22.68	≤8.00	PASS
	Ant2	2412	-22.40	≤8.00	PASS
	Ant1	2437	-21.76	≤8.00	PASS
	Ant2	2437	-23.16	≤8.00	PASS
	Ant1	2462	-23.15	≤8.00	PASS
	Ant2	2462	-24.35	≤8.00	PASS
11N20MIMO	Ant1	2412	-26.56	≤8.00	PASS
	Ant2	2412	-24.09	≤8.00	PASS
	total	2412	-22.14	≤8.00	PASS
	Ant1	2437	-25.86	≤8.00	PASS
	Ant2	2437	-24.41	≤8.00	PASS
	total	2437	-22.06	≤8.00	PASS
	Ant1	2462	-26.02	≤8.00	PASS
	Ant2	2462	-24.78	≤8.00	PASS
	total	2462	-22.35	≤8.00	PASS
11N40MIMO	Ant1	2422	-28.27	≤8.00	PASS
	Ant2	2422	-27.39	≤8.00	PASS
	total	2422	-24.80	≤8.00	PASS
	Ant1	2437	-29.34	≤8.00	PASS
	Ant2	2437	-28.40	≤8.00	PASS
	total	2437	-25.83	≤8.00	PASS
	Ant1	2452	-29.47	≤8.00	PASS
	Ant2	2452	-28.75	≤8.00	PASS
	total	2452	-26.08	≤8.00	PASS

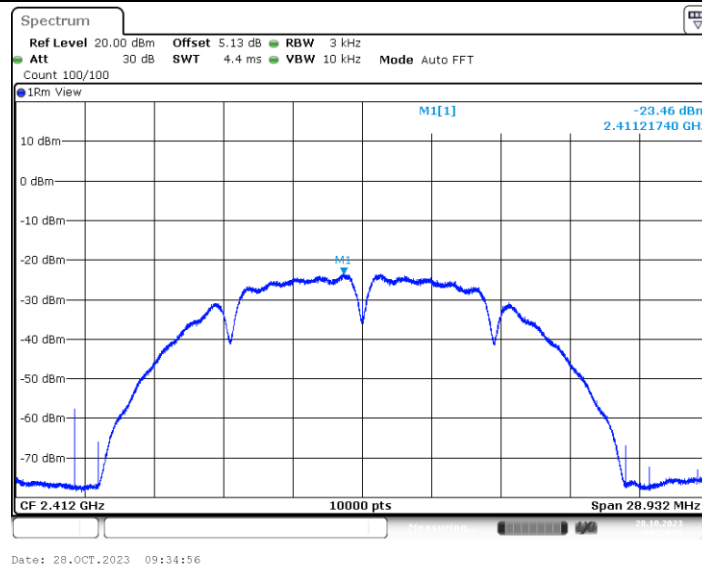
4.2. Test Graphs

11B_Ant1_2412



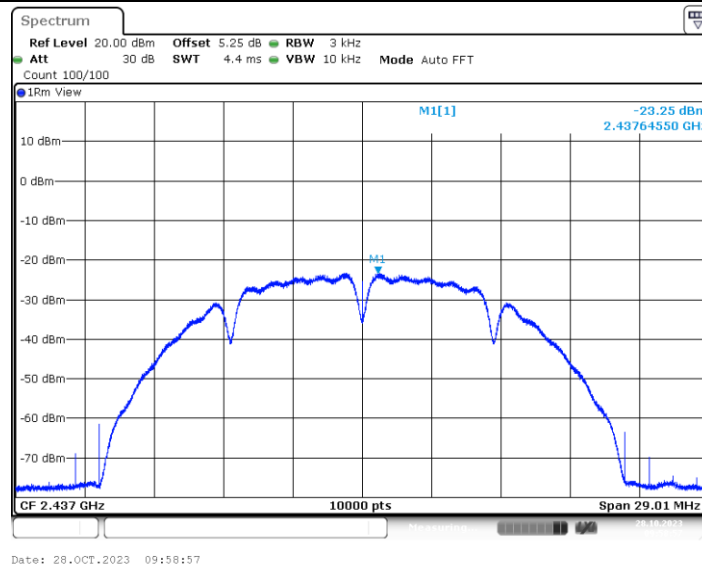
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11B_Ant2_2412



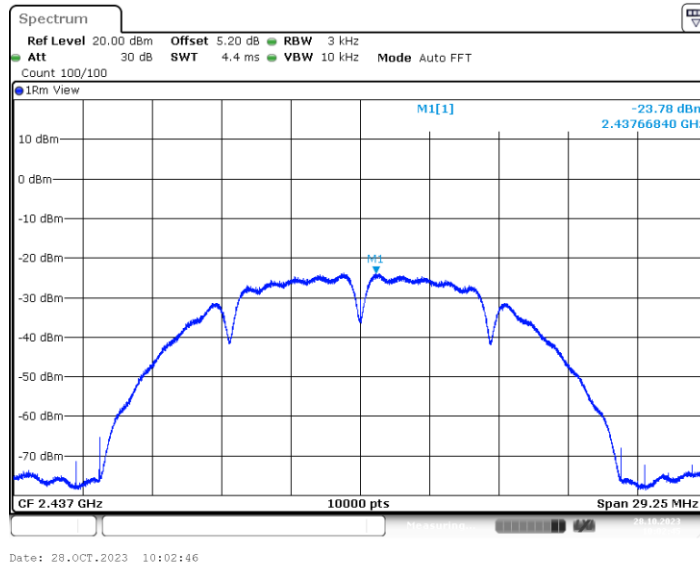
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11B_Ant1_2437

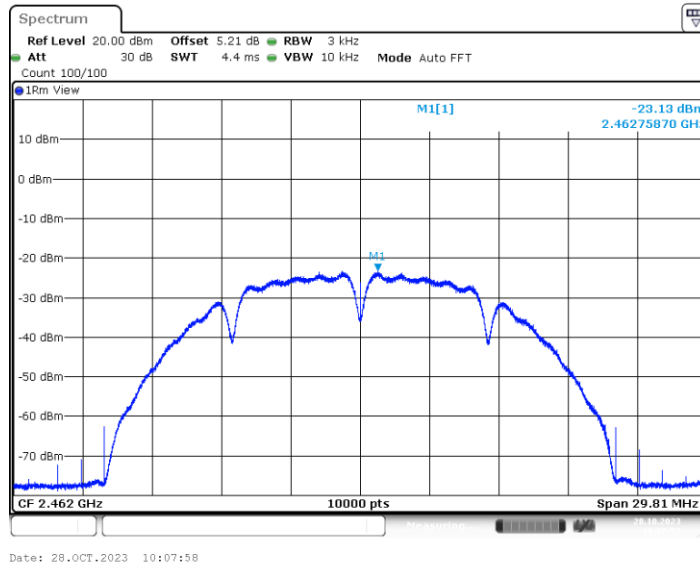


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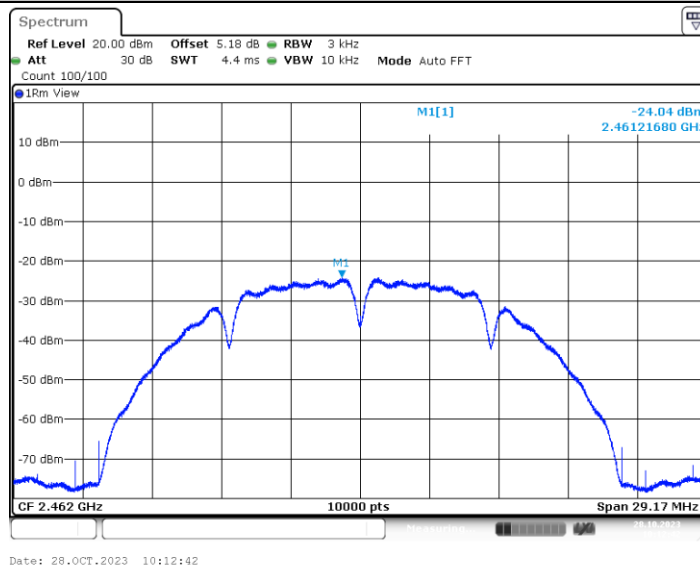
11B_Ant2_2437



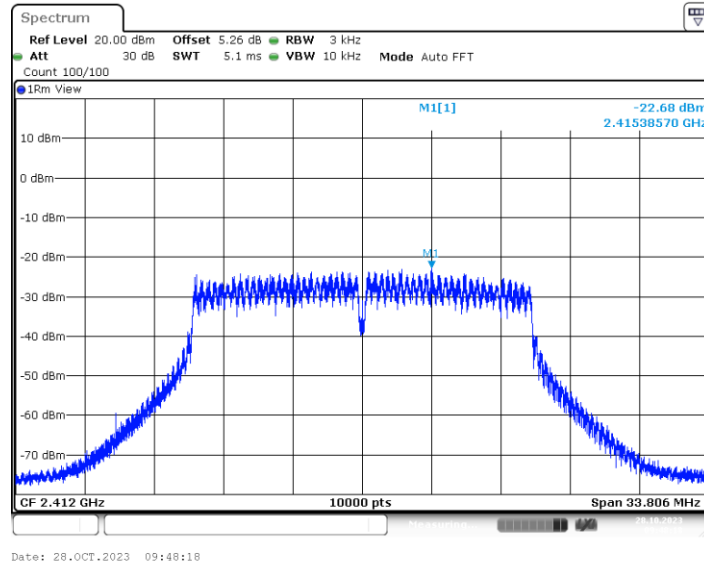
11B_Ant1_2462



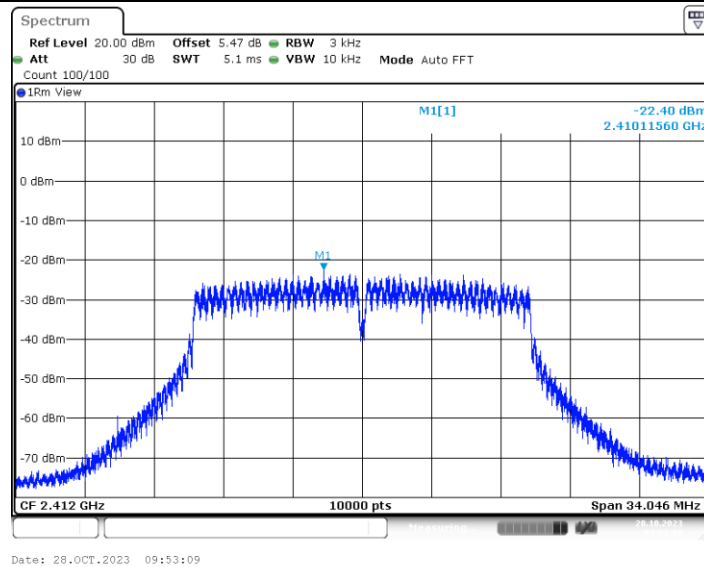
11B_Ant2_2462



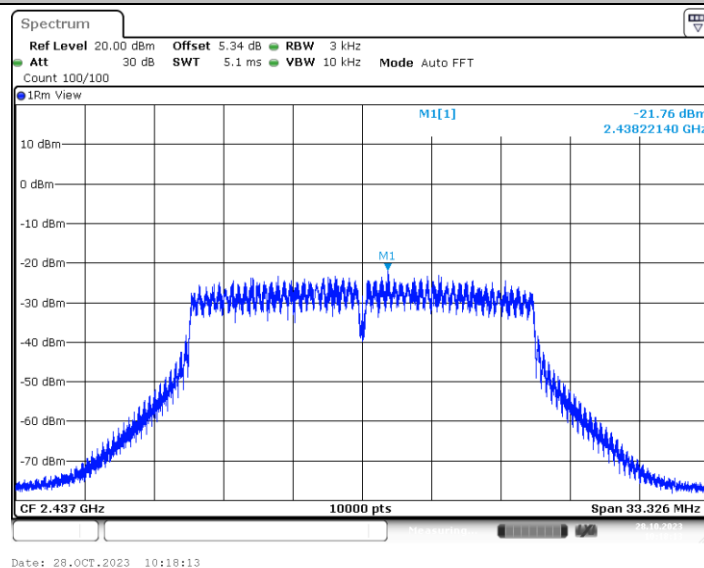
11G_Ant1_2412



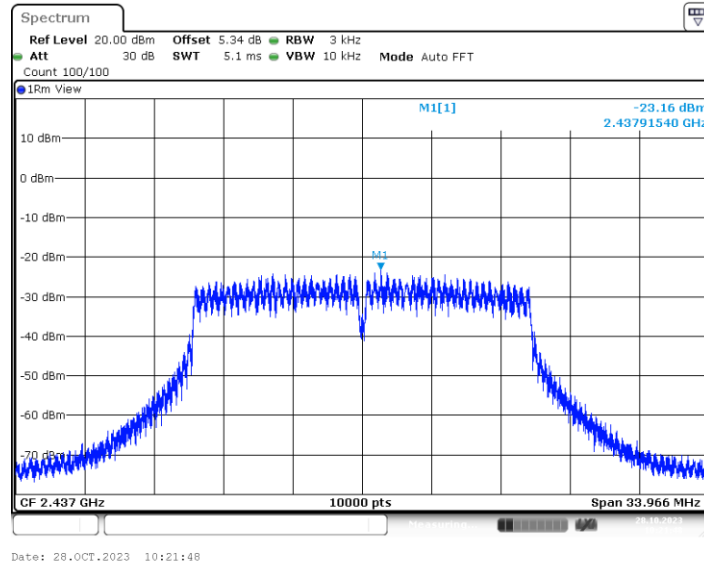
11G_Ant2_2412



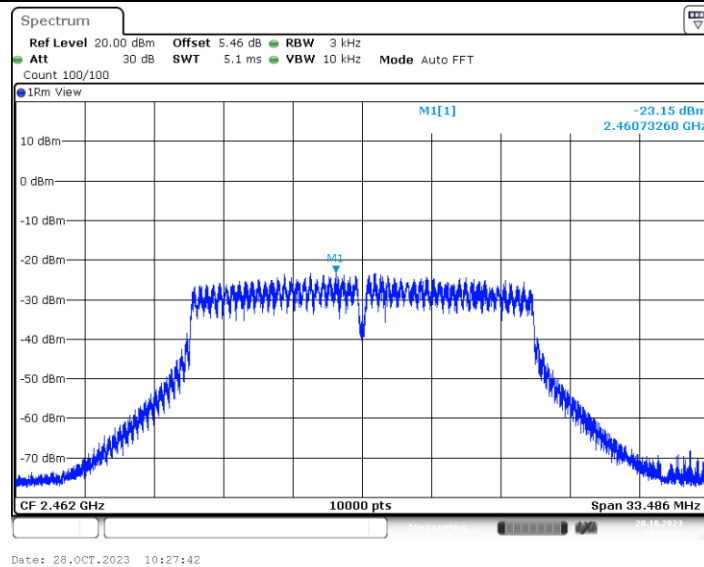
11G_Ant1_2437



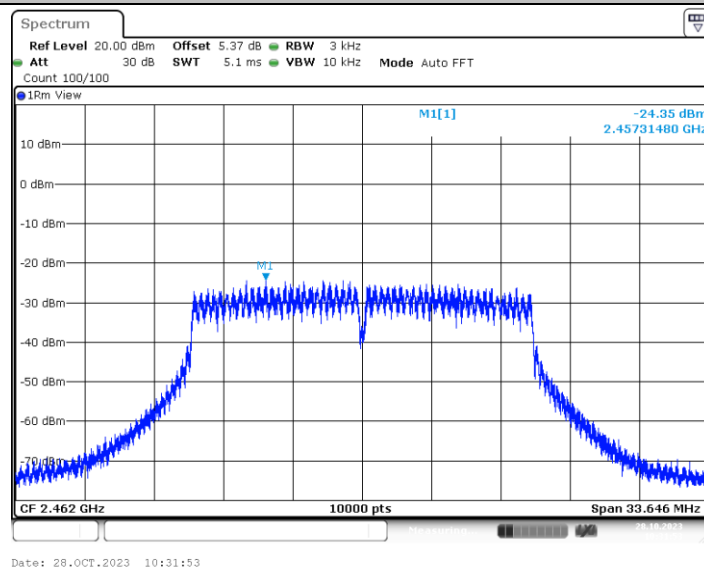
11G_Ant2_2437



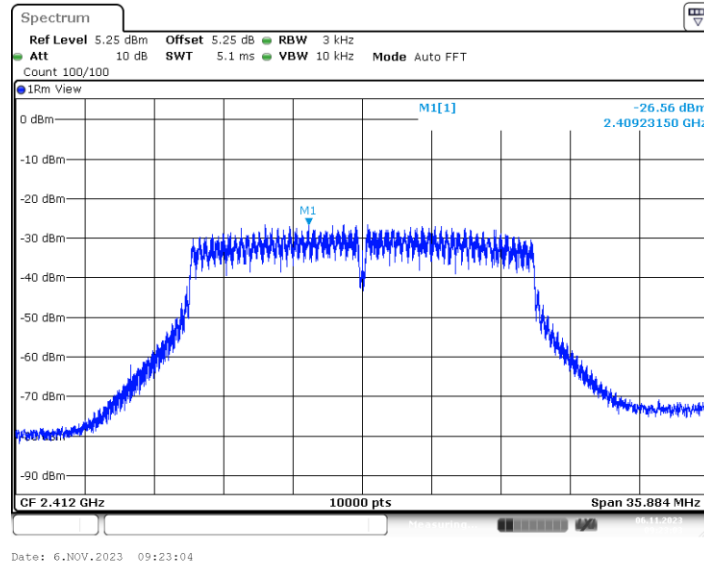
11G_Ant1_2462



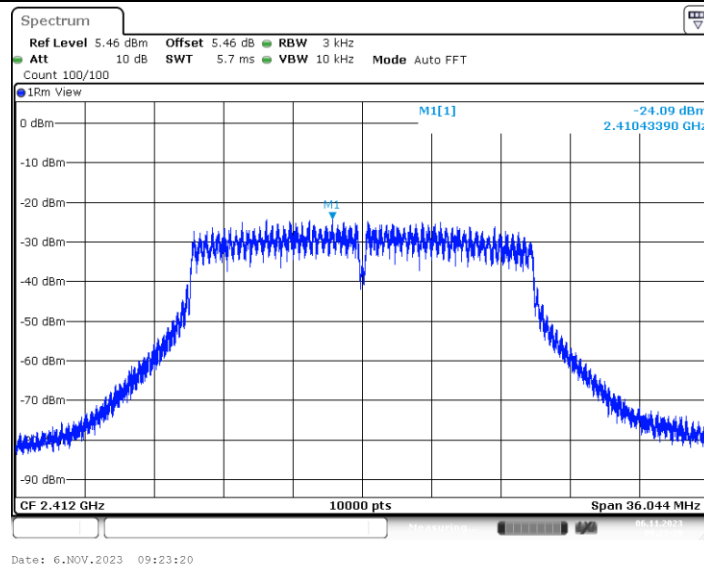
11G_Ant2_2462



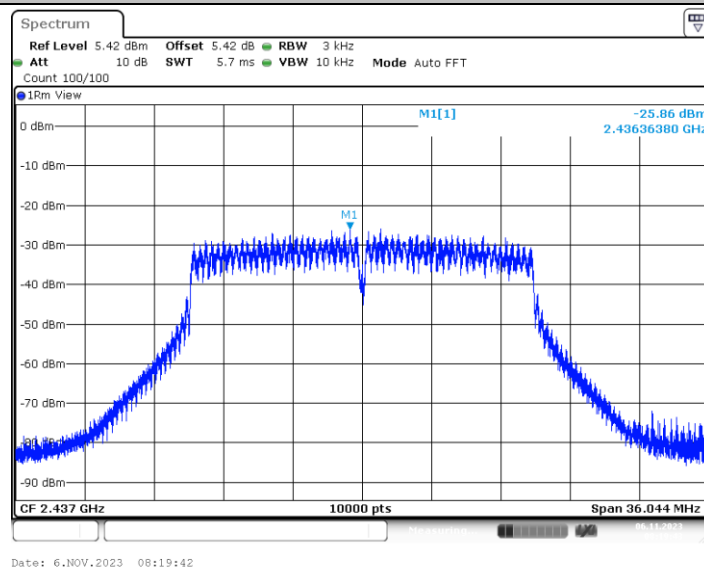
11N20MIMO_Ant1_2412



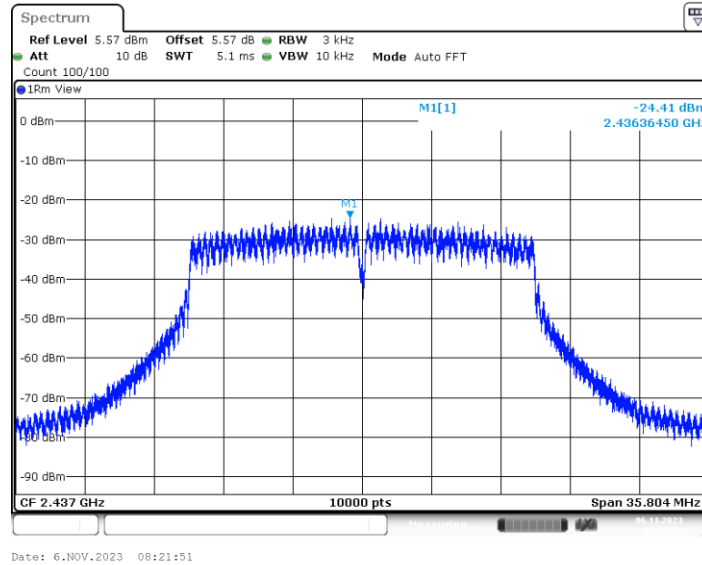
11N20MIMO_Ant2_2412



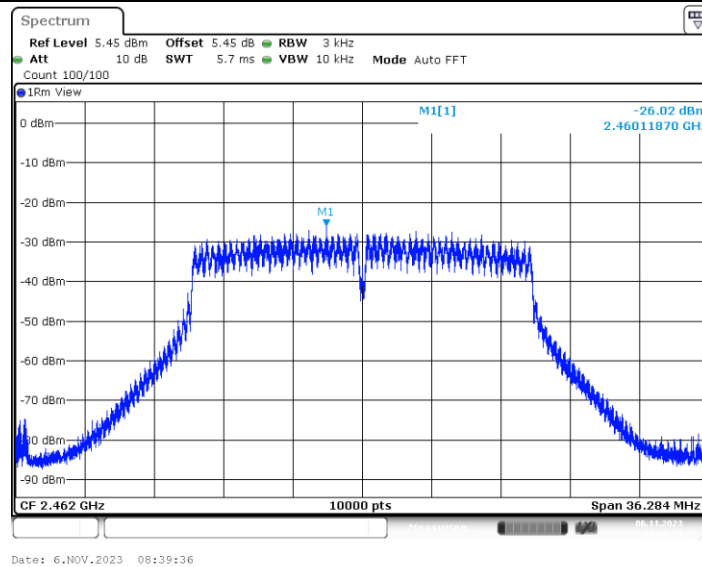
11N20MIMO_Ant1_2437



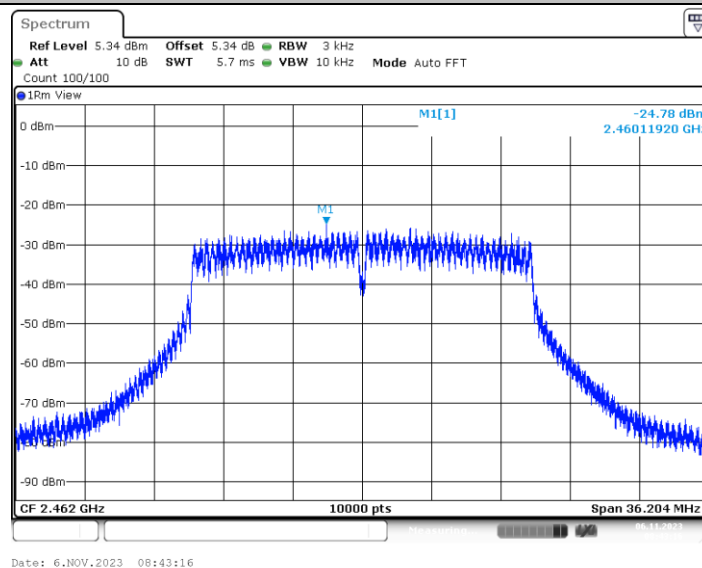
11N20MIMO_Ant2_2437



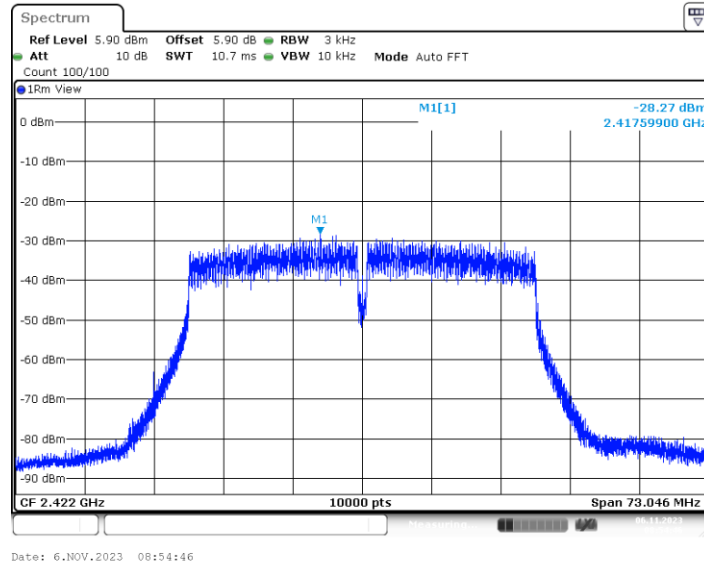
11N20MIMO_Ant1_2462



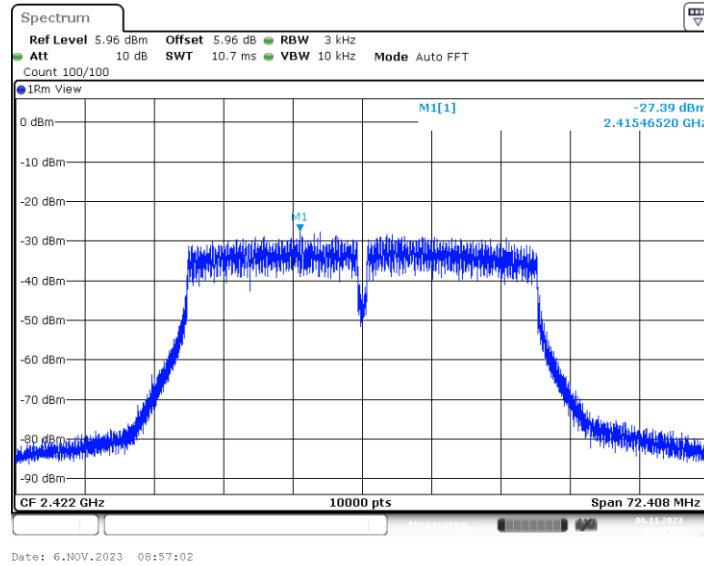
11N20MIMO_Ant2_2462



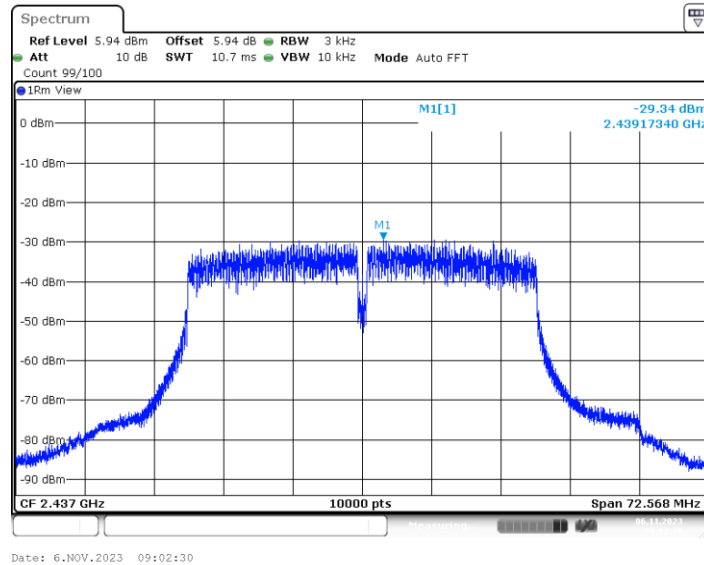
11N40MIMO_Ant1_2422



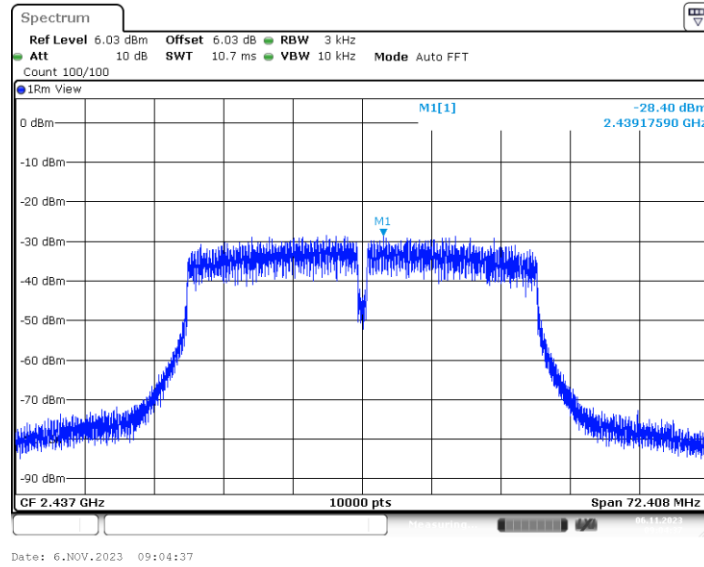
11N40MIMO_Ant2_2422



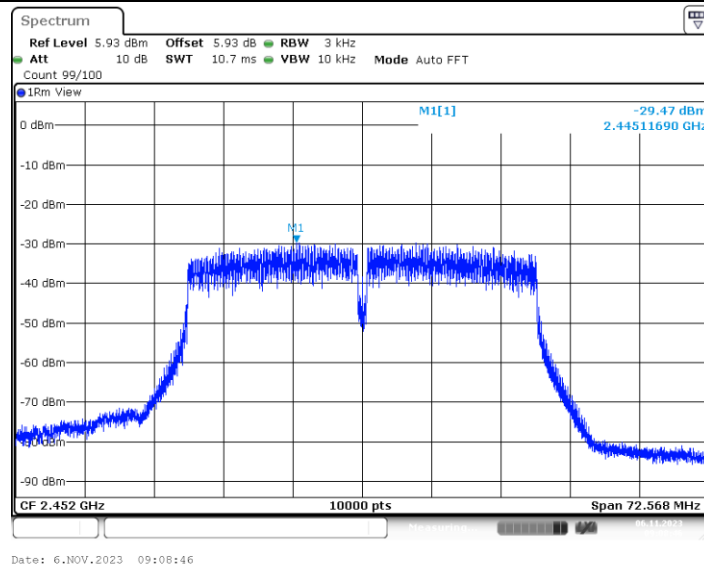
11N40MIMO_Ant1_2437



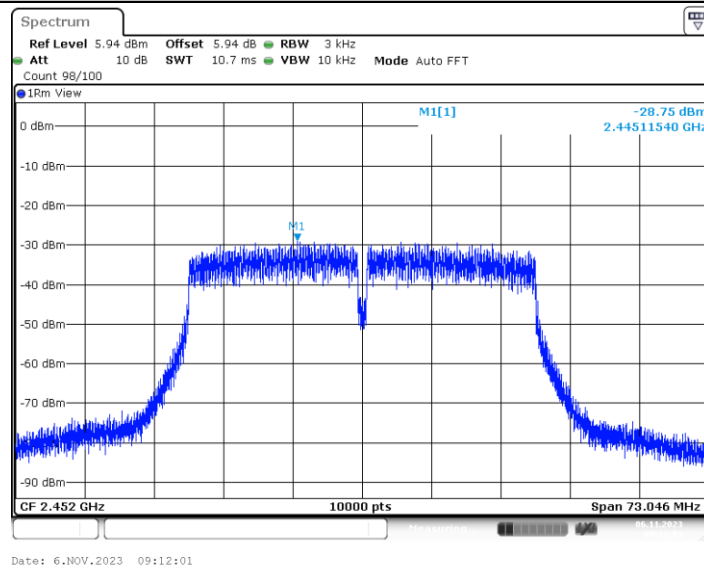
11N40MIMO_Ant2_2437



11N40MIMO_Ant1_2452



11N40MIMO_Ant2_2452



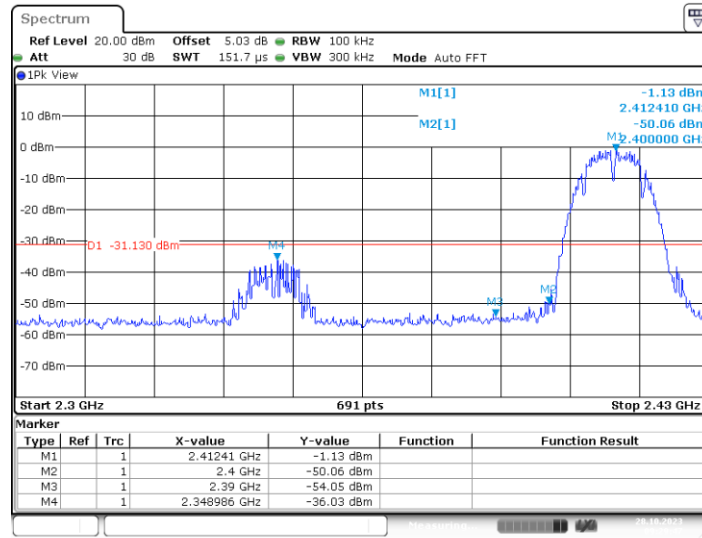
5. Band edge measurements

5.1. Test Result

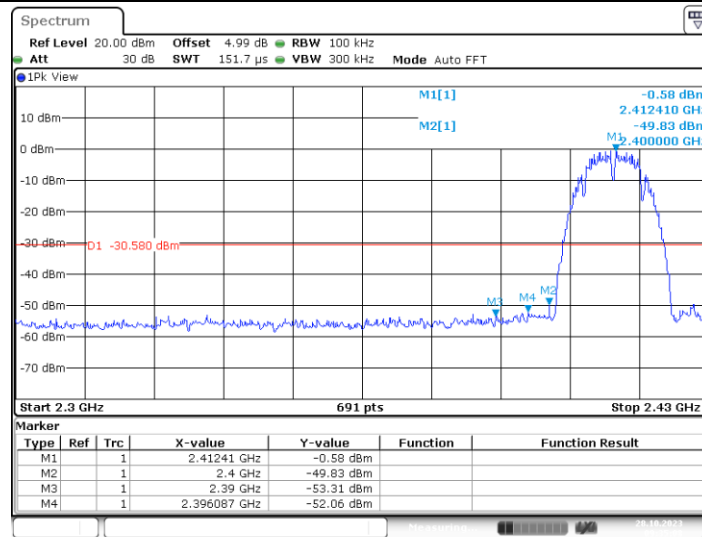
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	-1.13	-36.03	≤ -31.13	PASS
	Ant2	Low	2412	-0.58	-52.06	≤ -30.58	PASS
	Ant1	High	2462	-1.39	-38.31	≤ -31.39	PASS
	Ant2	High	2462	-1.89	-52.03	≤ -31.89	PASS
11G	Ant1	Low	2412	-2.40	-39.87	≤ -32.4	PASS
	Ant2	Low	2412	-5.54	-41.58	≤ -35.54	PASS
	Ant1	High	2462	-2.51	-51.77	≤ -32.51	PASS
	Ant2	High	2462	-3.50	-52.09	≤ -33.5	PASS
11N20MIMO	Ant1	Low	2412	-5.28	-40.32	≤ -35.28	PASS
	Ant2	Low	2412	-3.39	-41.15	≤ -33.39	PASS
	Ant1	High	2462	-6.52	-45.58	≤ -36.52	PASS
	Ant2	High	2462	-4.76	-51.27	≤ -34.76	PASS
11N40MIMO	Ant1	Low	2422	-8.60	-42.53	≤ -38.6	PASS
	Ant2	Low	2422	-8.22	-47.13	≤ -38.22	PASS
	Ant1	High	2452	-8.32	-47.01	≤ -38.32	PASS
	Ant2	High	2452	-9.68	-51.23	≤ -39.68	PASS

5.2. Test Graphs

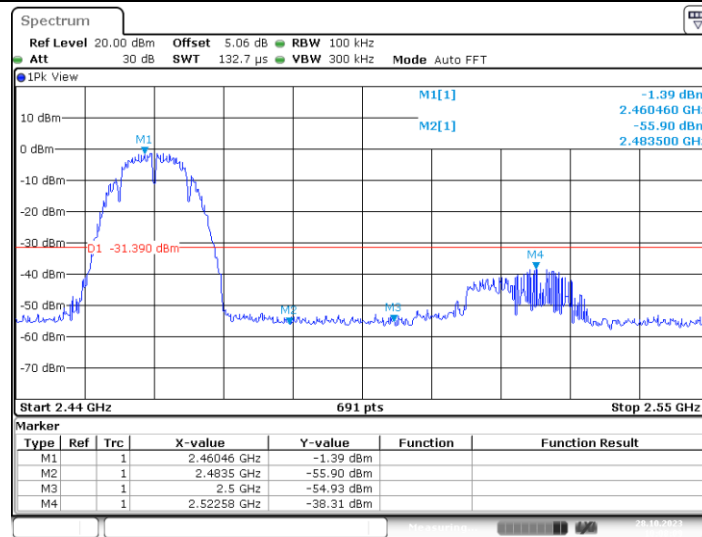
11B_Ant1_Low_2412



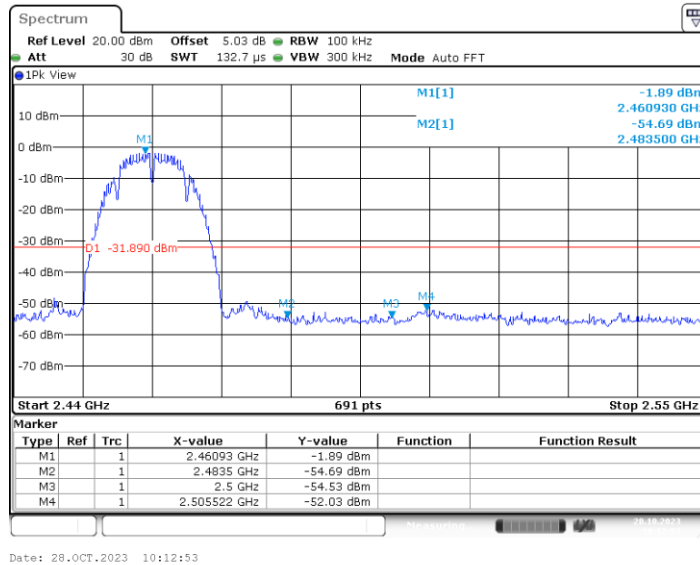
11B_Ant2_Low_2412



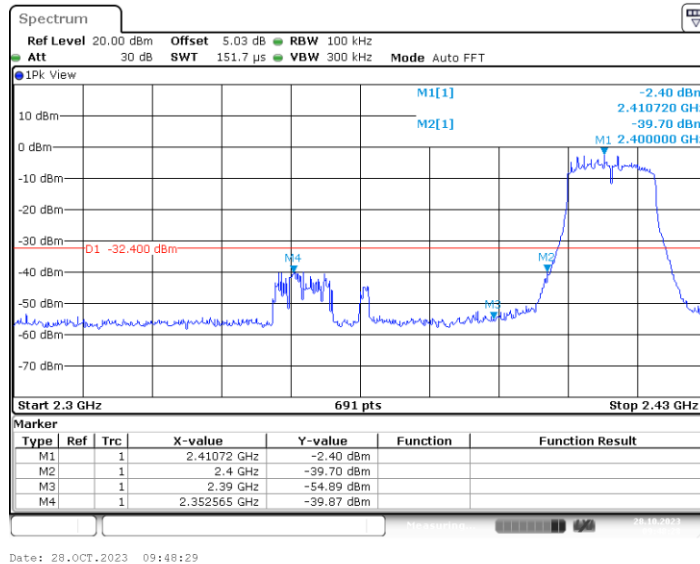
11B_Ant1_High_2462



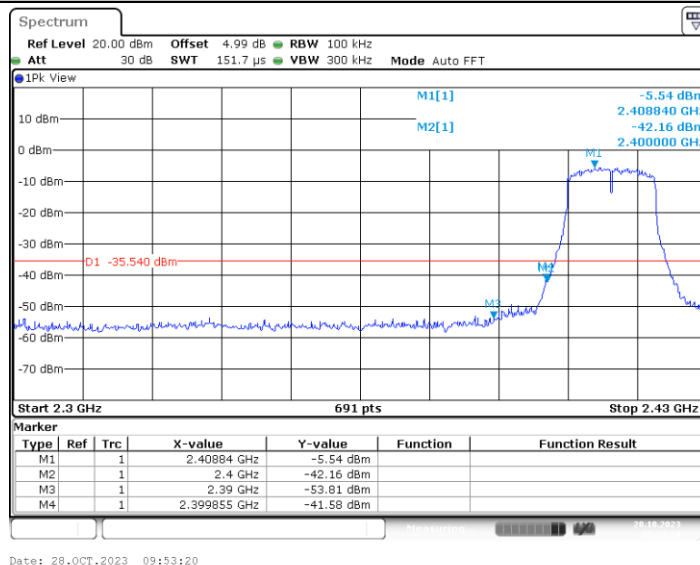
11B_Ant2_High_2462



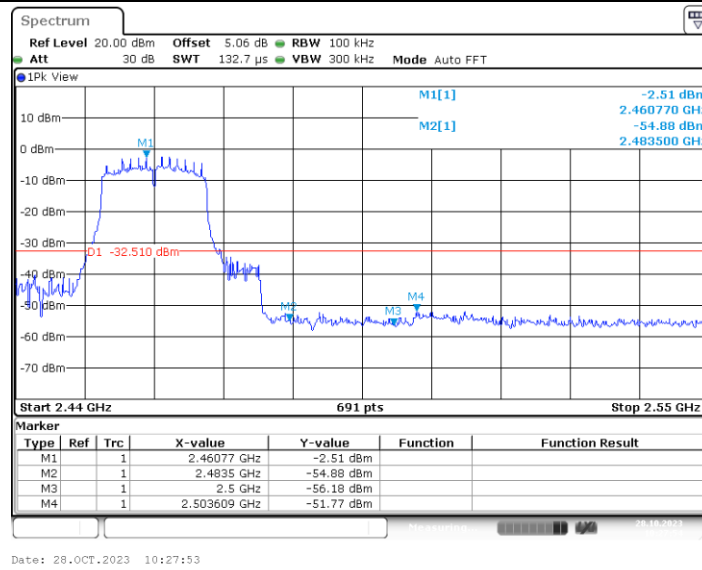
11G_Ant1_Low_2412



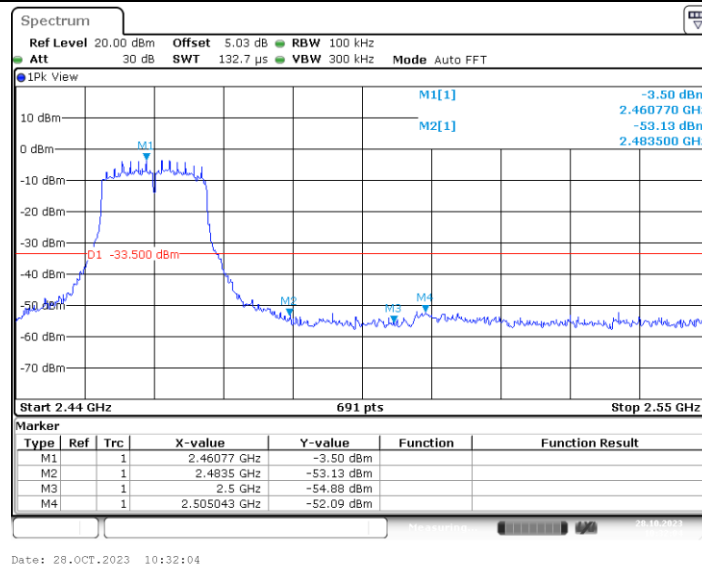
11G_Ant2_Low_2412



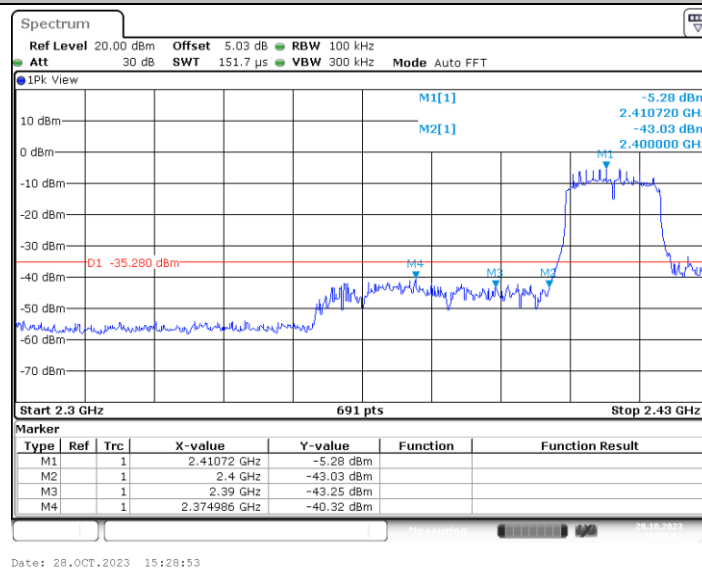
11G_Ant1_High_2462



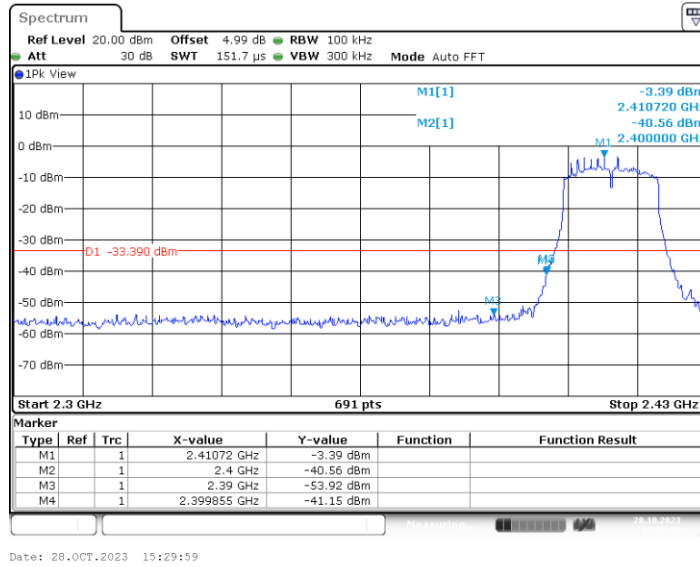
11G_Ant2_High_2462



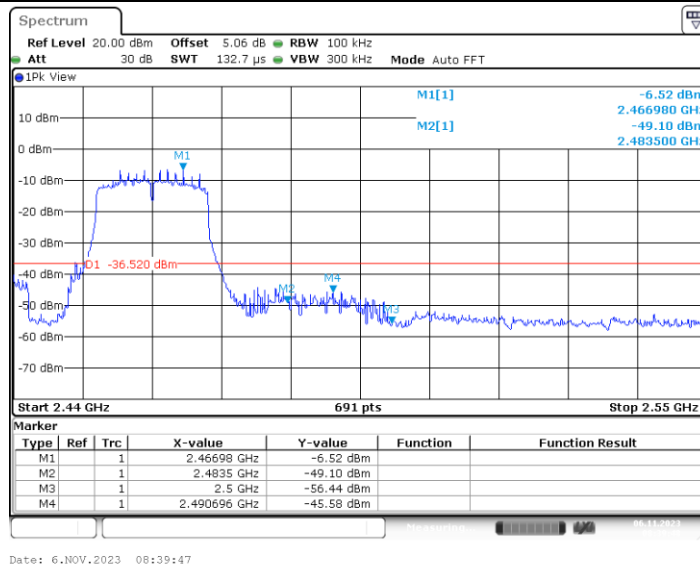
11N20MIMO_Ant1_Low_2412



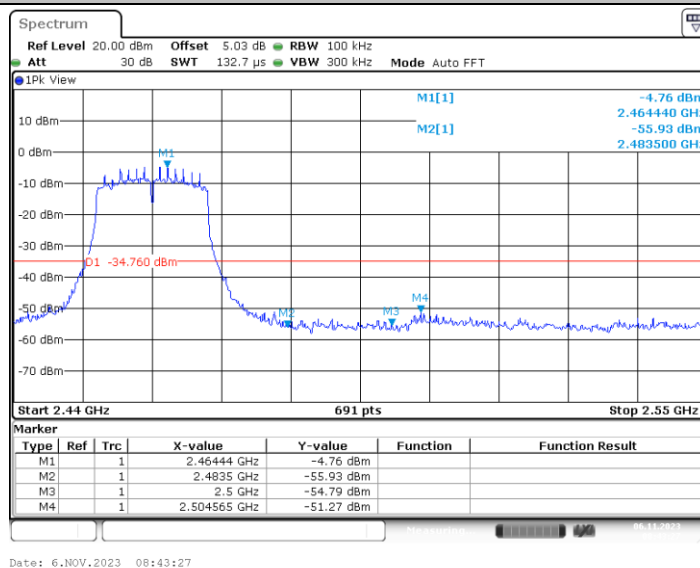
11N20MIMO_Ant2_Low_2412



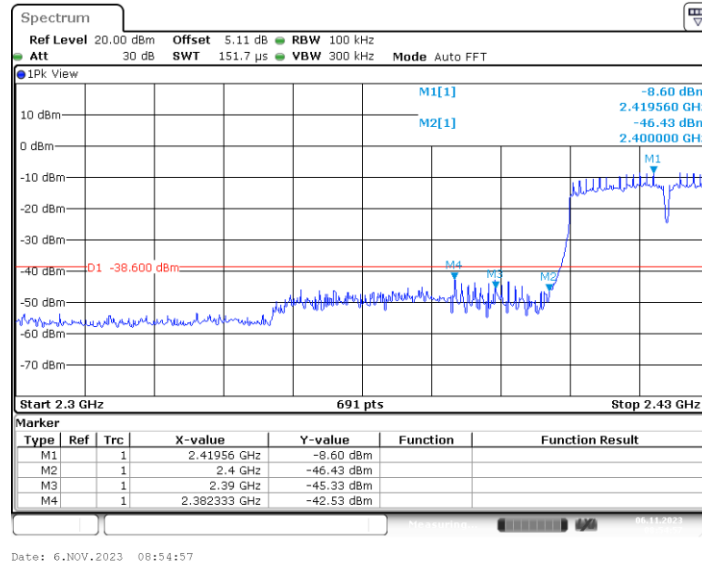
11N20MIMO_Ant1_High_2462



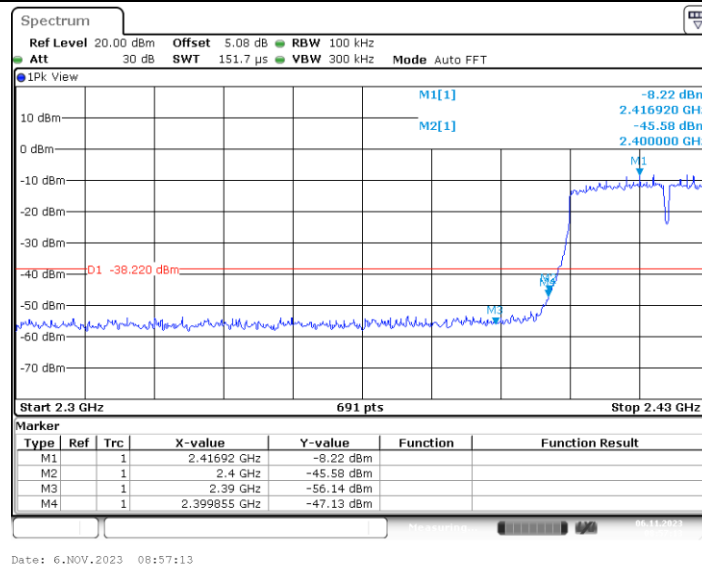
11N20MIMO_Ant2_High_2462



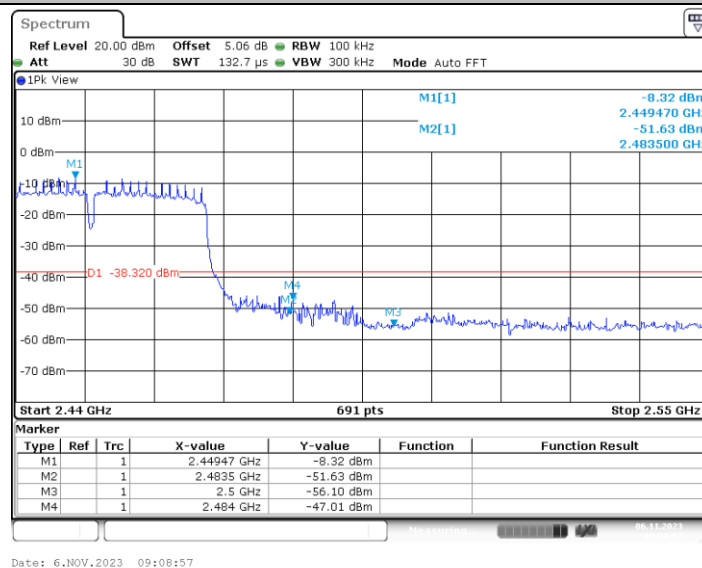
11N40MIMO_Ant1_Low_2422



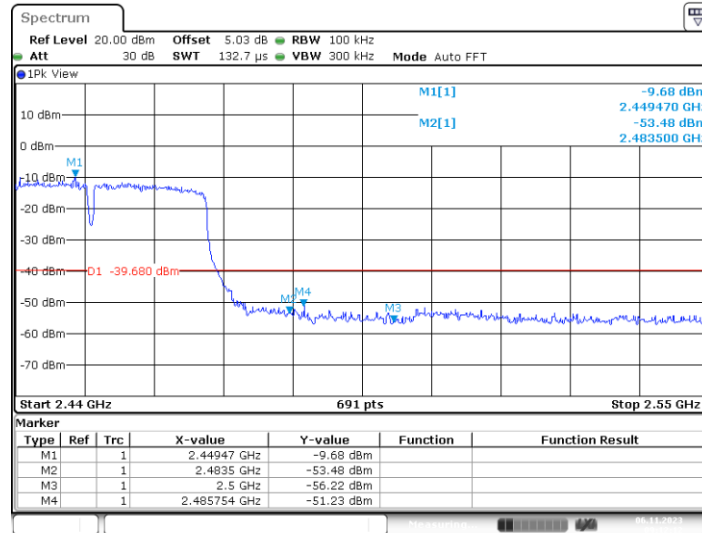
11N40MIMO_Ant2_Low_2422



11N40MIMO_Ant1_High_2452



11N40MIMO_Ant2_High_2452



Date: 6.NOV.2023 09:12:12

6. Conducted Spurious Emission

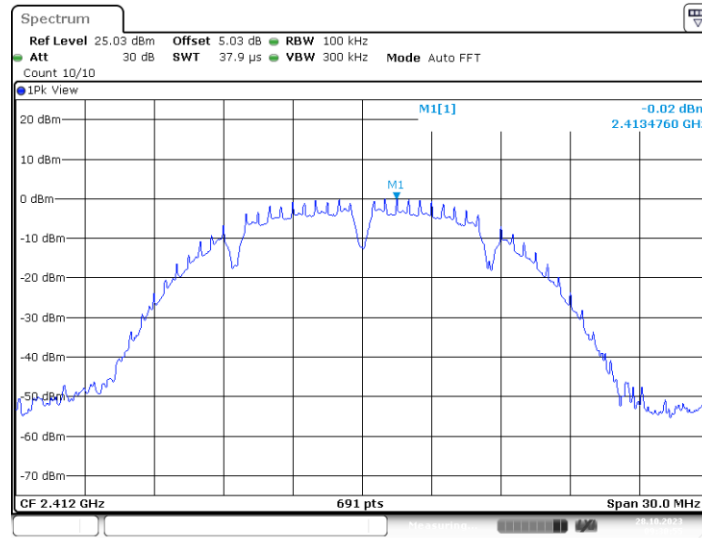
6.1. Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	-0.02	-0.02	---	PASS
			30~1000	-0.02	-63.19	≤-30.02	PASS
			1000~26500	-0.02	-56.74	≤-30.02	PASS
	Ant2	2412	Reference	-0.20	-0.20	---	PASS
			30~1000	-0.20	-64.87	≤-30.2	PASS
			1000~26500	-0.20	-57.01	≤-30.2	PASS
	Ant1	2437	Reference	0.04	0.04	---	PASS
			30~1000	0.04	-63.57	≤-29.96	PASS
			1000~26500	0.04	-54.05	≤-29.96	PASS
	Ant2	2437	Reference	-0.61	-0.61	---	PASS
			30~1000	-0.61	-63.64	≤-30.61	PASS
			1000~26500	-0.61	-56.53	≤-30.61	PASS
	Ant1	2462	Reference	-0.32	-0.32	---	PASS
			30~1000	-0.32	-63.87	≤-30.32	PASS
			1000~26500	-0.32	-56.83	≤-30.32	PASS
	Ant2	2462	Reference	-0.94	-0.94	---	PASS
			30~1000	-0.94	-63.87	≤-30.94	PASS
			1000~26500	-0.94	-57.08	≤-30.94	PASS
11G	Ant1	2412	Reference	-1.91	-1.91	---	PASS
			30~1000	-1.91	-62.84	≤-31.91	PASS
			1000~26500	-1.91	-56.64	≤-31.91	PASS
	Ant2	2412	Reference	-2.74	-2.74	---	PASS
			30~1000	-2.74	-64.07	≤-32.74	PASS
			1000~26500	-2.74	-55.94	≤-32.74	PASS
	Ant1	2437	Reference	-1.95	-1.95	---	PASS
			30~1000	-1.95	-63.49	≤-31.95	PASS
			1000~26500	-1.95	-56.93	≤-31.95	PASS
	Ant2	2437	Reference	-3.29	-3.29	---	PASS
			30~1000	-3.29	-63.2	≤-33.29	PASS
			1000~26500	-3.29	-57.09	≤-33.29	PASS
	Ant1	2462	Reference	-2.34	-2.34	---	PASS
			30~1000	-2.34	-64.04	≤-32.34	PASS
			1000~26500	-2.34	-57.19	≤-32.34	PASS
	Ant2	2462	Reference	-3.10	-3.10	---	PASS
			30~1000	-3.10	-64.12	≤-33.1	PASS
			1000~26500	-3.10	-56.85	≤-33.1	PASS
11N20MIMO	Ant1	2412	Reference	-5.26	-5.26	---	PASS
			30~1000	-5.26	-63.55	≤-35.26	PASS
			1000~26500	-5.26	-59.5	≤-35.26	PASS
	Ant2	2412	Reference	-4.23	-4.23	---	PASS

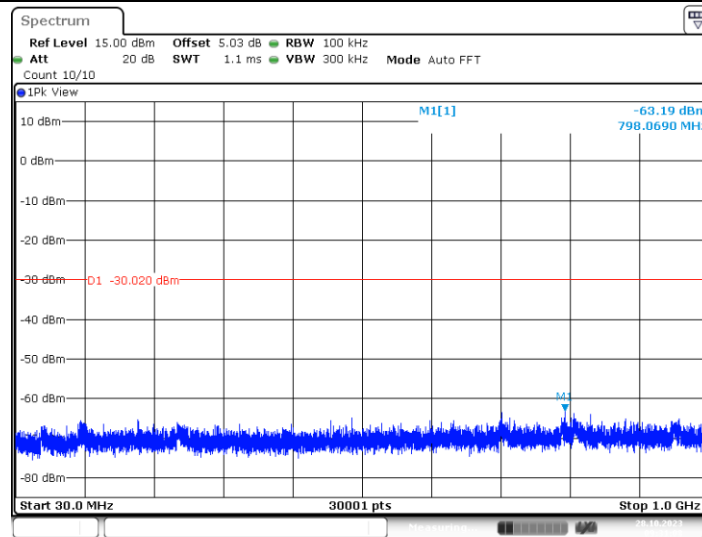
			30~1000	-4.23	-63.55	≤ -34.23	PASS
			1000~26500	-4.23	-60.05	≤ -34.23	PASS
			Reference	-5.85	-5.85	---	PASS
	Ant1	2437	30~1000	-5.85	-64.24	≤ -35.85	PASS
			1000~26500	-5.85	-54.4	≤ -35.85	PASS
			Reference	-4.49	-4.49	---	PASS
	Ant2	2437	30~1000	-4.49	-63.86	≤ -34.49	PASS
			1000~26500	-4.49	-54.52	≤ -34.49	PASS
			Reference	-6.43	-6.43	---	PASS
	Ant1	2462	30~1000	-6.43	-63.6	≤ -36.43	PASS
			1000~26500	-6.43	-54.43	≤ -36.43	PASS
			Reference	-4.83	-4.83	---	PASS
11N40MIMO	Ant1	2422	30~1000	-4.83	-63.48	≤ -34.83	PASS
			1000~26500	-4.83	-54.29	≤ -34.83	PASS
			Reference	-8.22	-8.22	---	PASS
	Ant2	2422	30~1000	-8.22	-63.9	≤ -38.22	PASS
			1000~26500	-8.22	-54.86	≤ -38.22	PASS
			Reference	-7.45	-7.45	---	PASS
	Ant1	2437	30~1000	-7.45	-63.32	≤ -37.45	PASS
			1000~26500	-7.45	-54.36	≤ -37.45	PASS
			Reference	-8.18	-8.18	---	PASS
	Ant2	2437	30~1000	-8.18	-62.99	≤ -38.18	PASS
			1000~26500	-8.18	-54.42	≤ -38.18	PASS
			Reference	-7.50	-7.50	---	PASS
	Ant1	2452	30~1000	-7.50	-63.33	≤ -37.5	PASS
			1000~26500	-7.50	-54.34	≤ -37.5	PASS
			Reference	-8.28	-8.28	---	PASS
	Ant2	2452	30~1000	-8.28	-64	≤ -38.28	PASS
			1000~26500	-8.28	-54.37	≤ -38.28	PASS
			Reference	-7.95	-7.95	---	PASS
			30~1000	-7.95	-63.84	≤ -37.95	PASS
			1000~26500	-7.95	-54.64	≤ -37.95	PASS
			Reference	-7.95	-7.95	---	PASS

6.2.Test Graphs

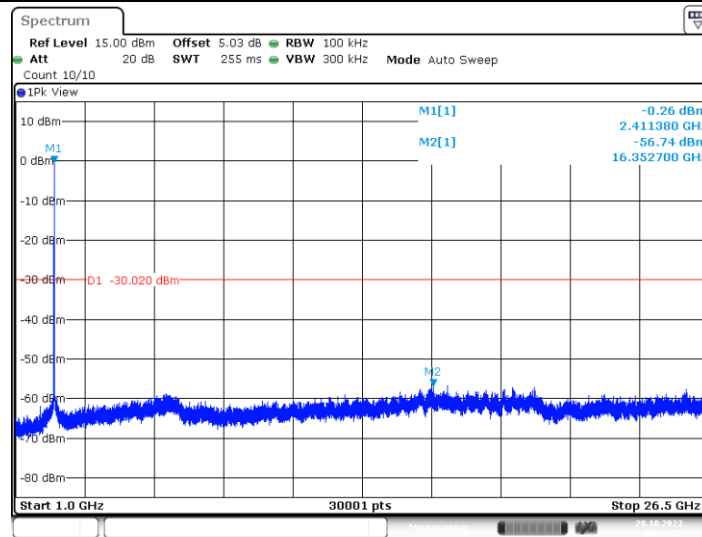
11B_Ant1_2412_0~Reference



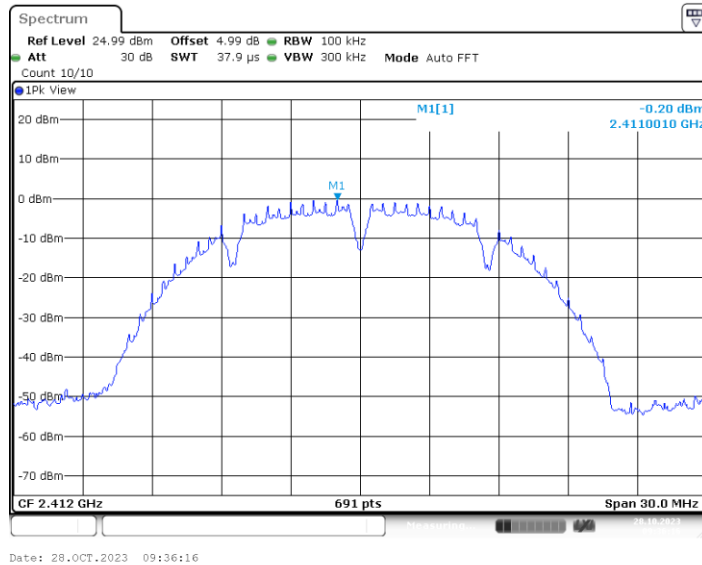
11B_Ant1_2412_30~1000



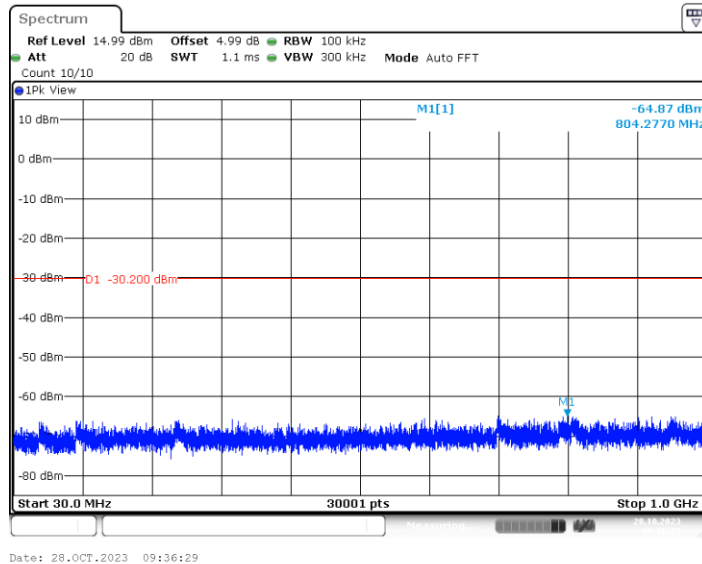
11B_Ant1_2412_1000~26500



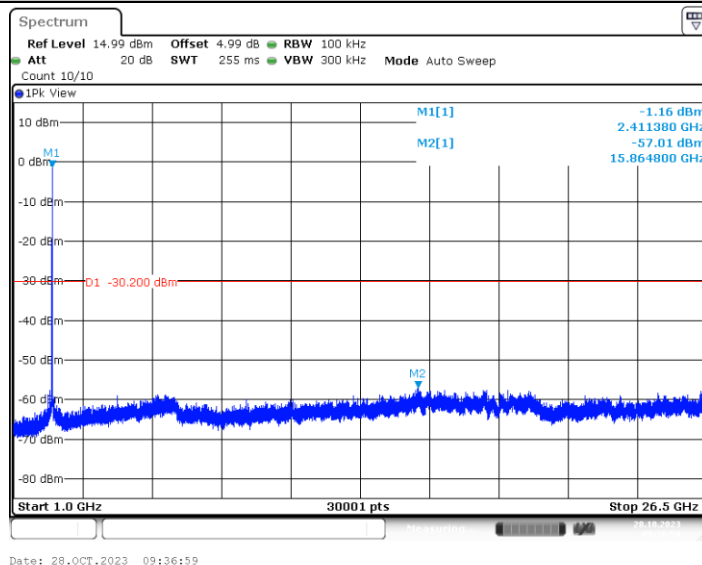
11B_Ant2_2412_0~Reference



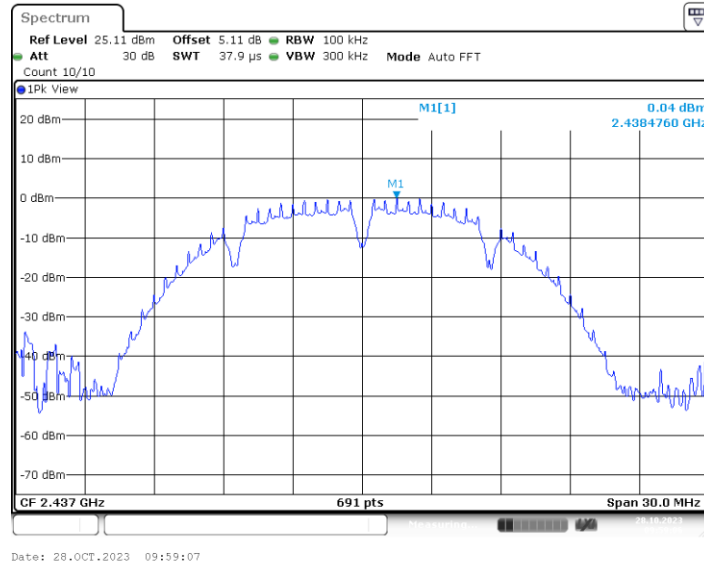
11B_Ant2_2412_30~1000



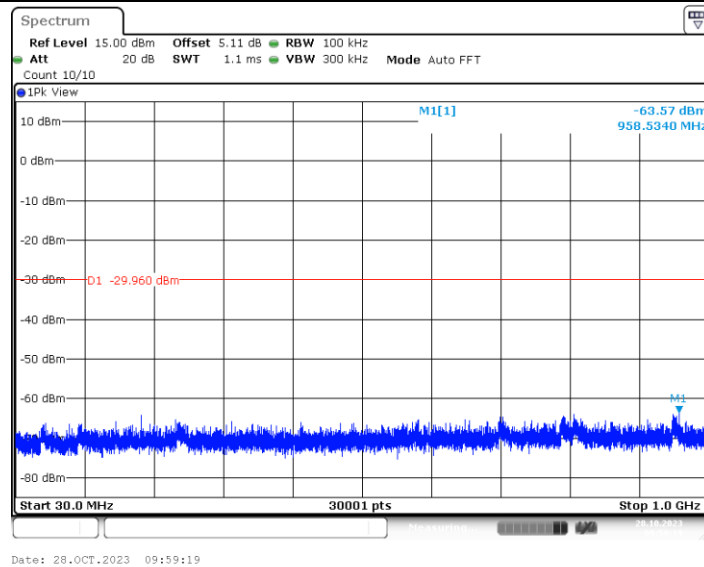
11B_Ant2_2412_1000~26500



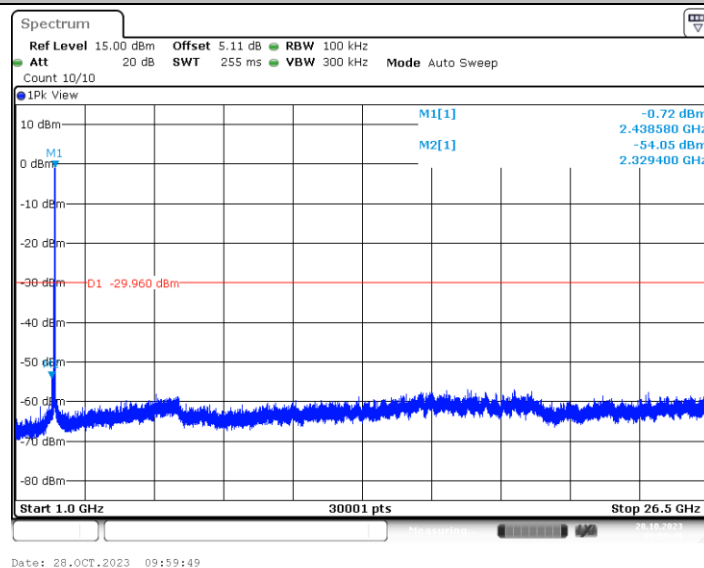
11B_Ant1_2437_0~Reference



11B_Ant1_2437_30~1000



11B_Ant1_2437_1000~26500



11B_Ant2_2437_0~Reference