

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

General Description of EUT	
Product Name:	IP CAMERA
Test Model:	A013A-W
Sample ID:	HC-C-202308-0224-01-01-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Li Ying Jing
Note: For a more detailed features description, please refer to the report TBR-C-202308-0224-2	

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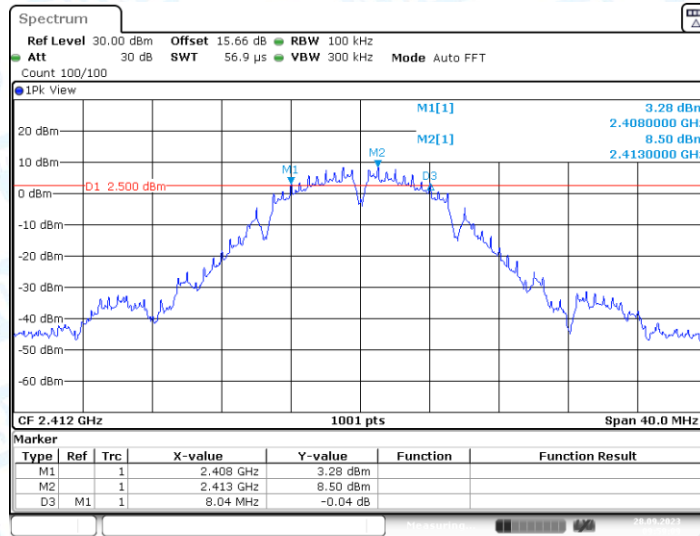
1. DTS Bandwidth

1.1. Test Result

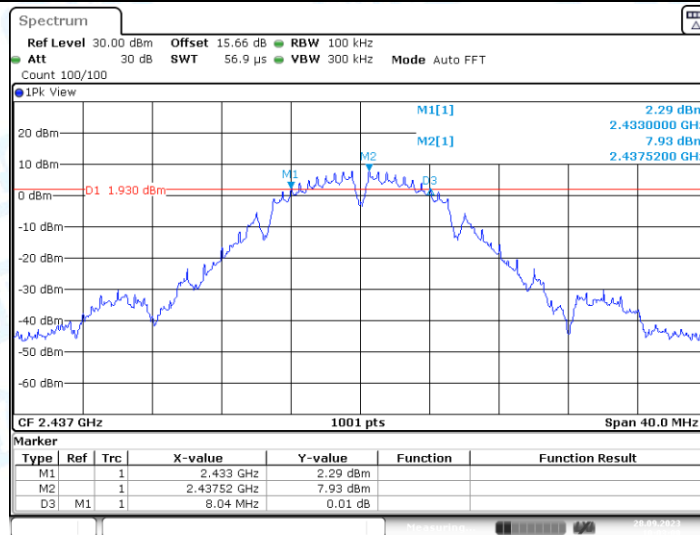
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.04	2408.00	2416.04	0.5	PASS
		2437	8.04	2433.00	2441.04	0.5	PASS
		2462	8.04	2458.00	2466.04	0.5	PASS
11G	Ant1	2412	15.28	2404.24	2419.52	0.5	PASS
		2437	16.40	2428.80	2445.20	0.5	PASS
		2462	16.28	2453.84	2470.12	0.5	PASS
11N20SISO	Ant1	2412	17.60	2403.20	2420.80	0.5	PASS
		2437	17.60	2428.20	2445.80	0.5	PASS
		2462	16.28	2453.48	2469.76	0.5	PASS
11N40SISO	Ant1	2422	36.32	2403.84	2440.16	0.5	PASS
		2437	36.32	2418.84	2455.16	0.5	PASS
		2452	36.32	2433.84	2470.16	0.5	PASS
11AX20SISO	Ant1	2412	18.88	2402.52	2421.40	0.5	PASS
		2437	15.32	2429.56	2444.88	0.5	PASS
		2462	18.60	2452.76	2471.36	0.5	PASS
11AX40SISO	Ant1	2422	38.08	2402.96	2441.04	0.5	PASS
		2437	37.68	2417.96	2455.64	0.5	PASS
		2452	37.84	2433.04	2470.88	0.5	PASS

1.2. Test Graphs

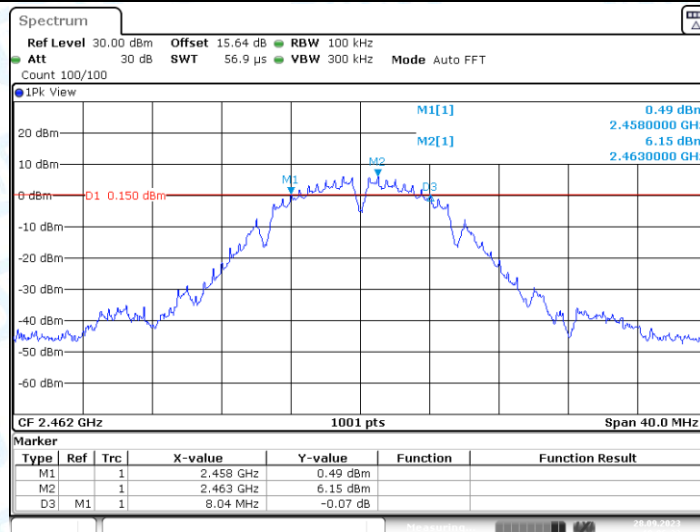
11B_Ant1_2412



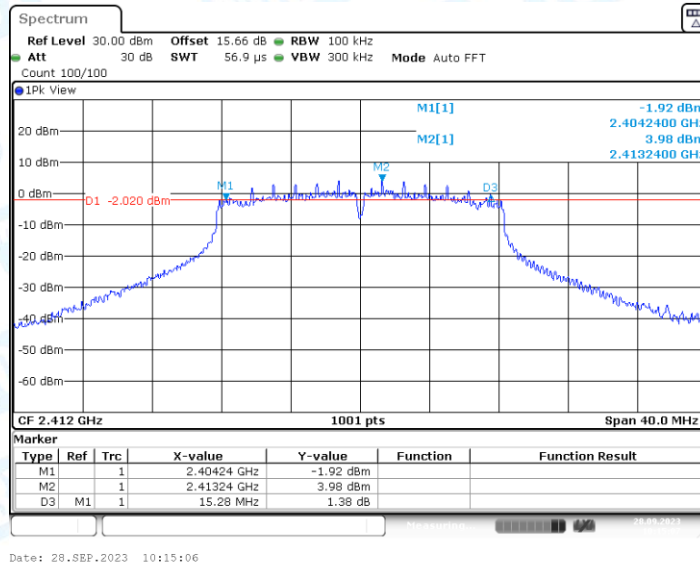
11B_Ant1_2437



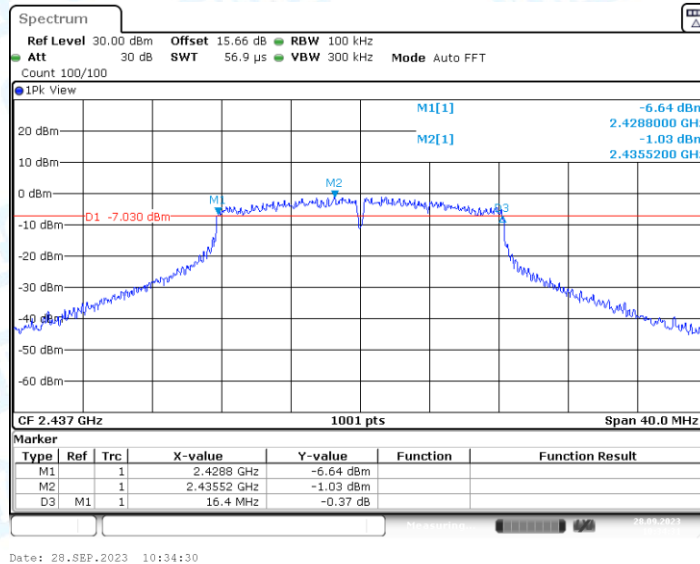
11B_Ant1_2462



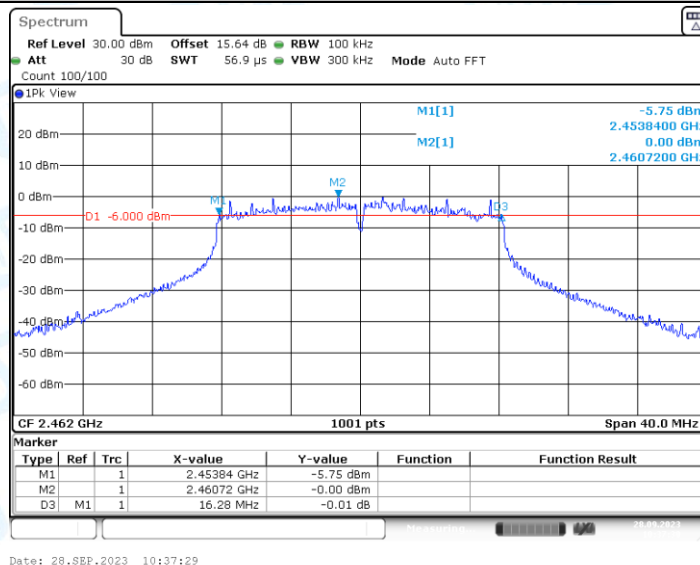
11G_Ant1_2412



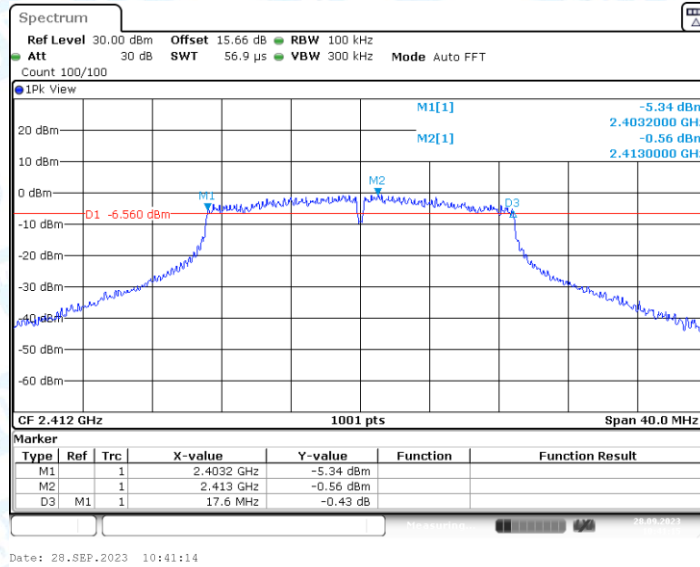
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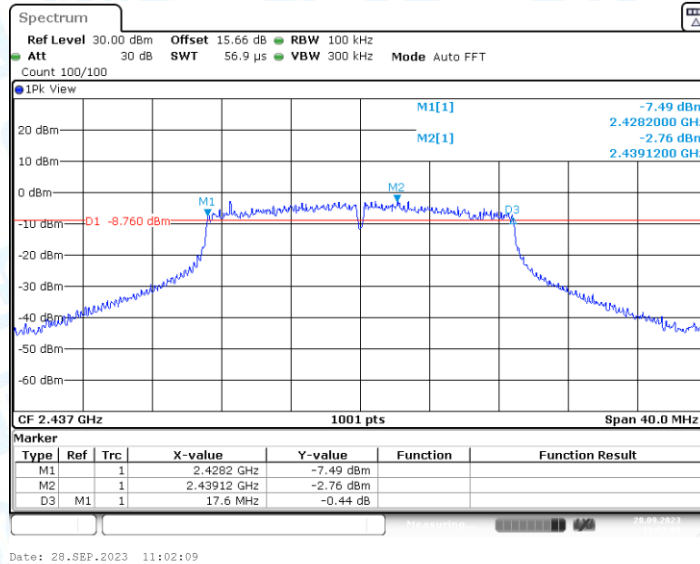
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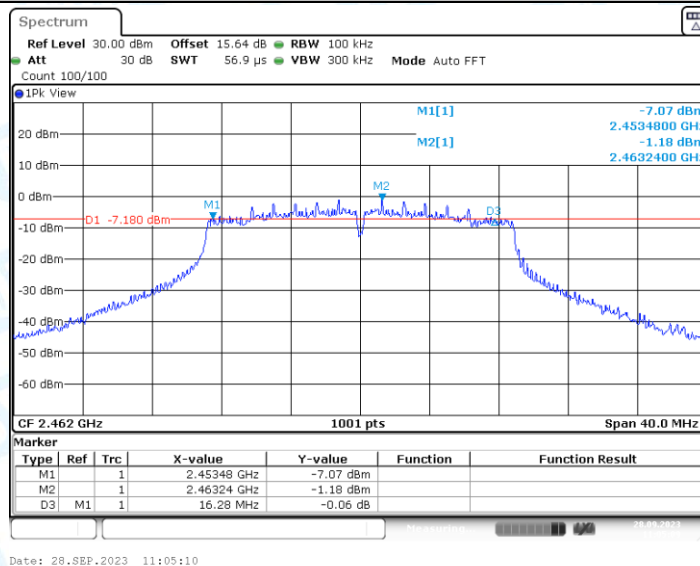
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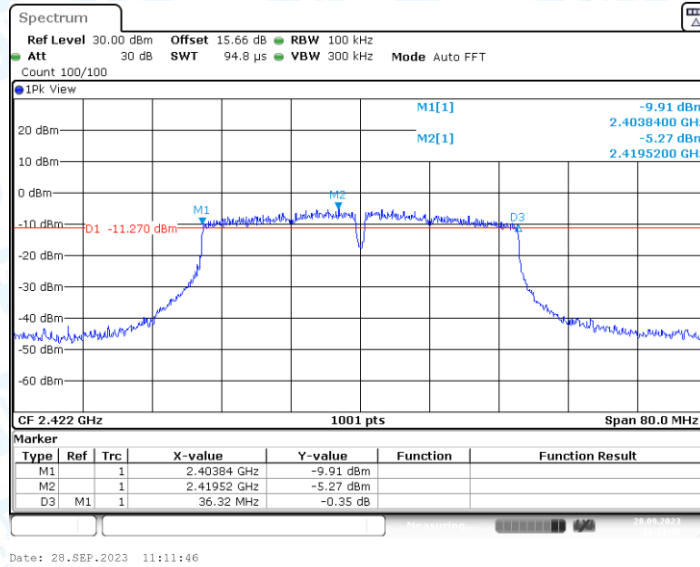
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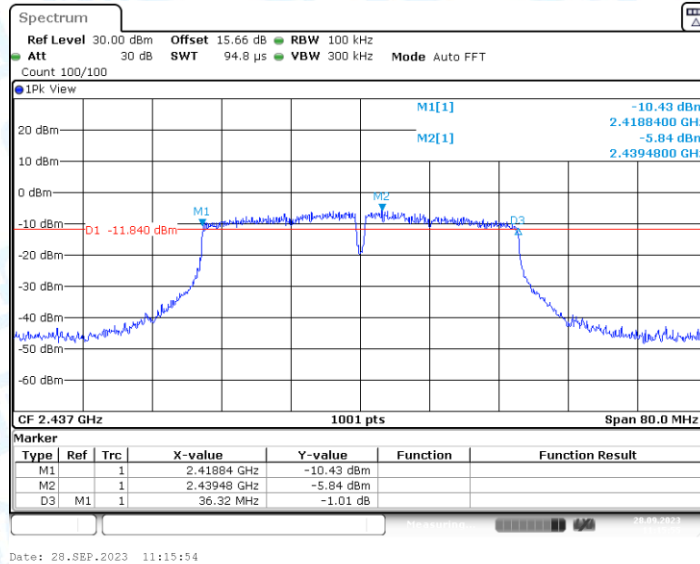
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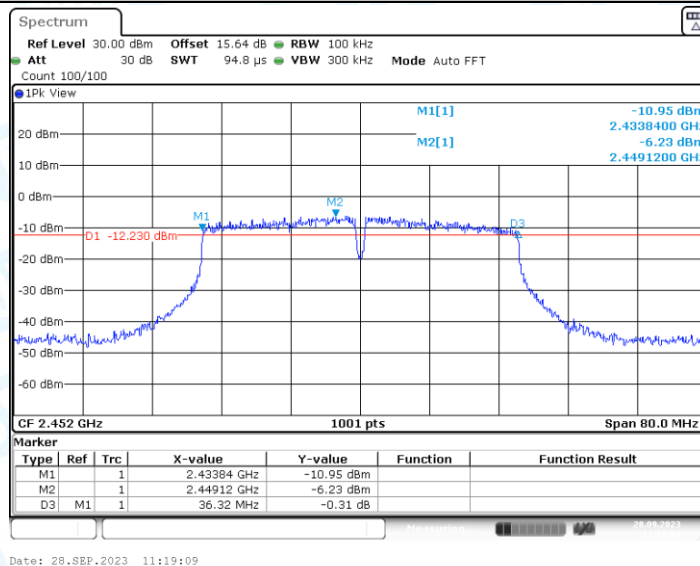
11N40SISO_Ant1_2422



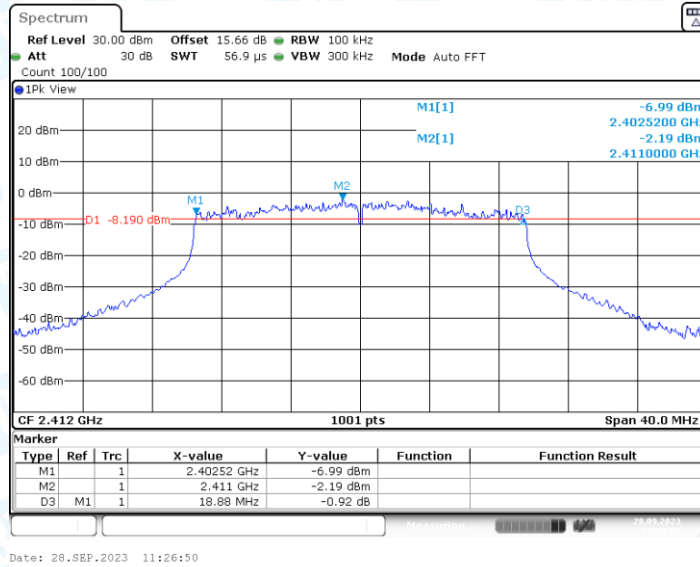
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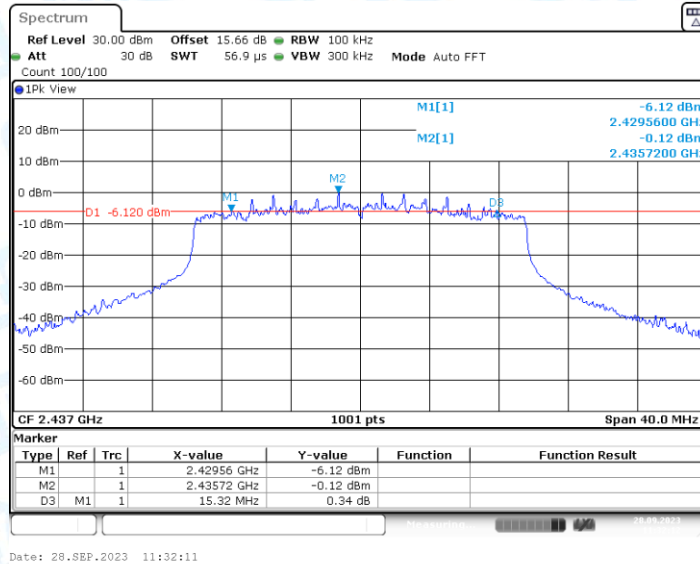
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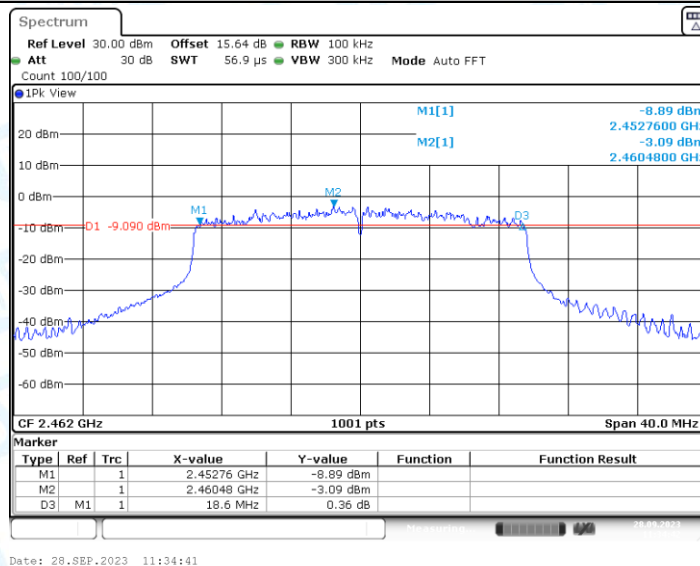
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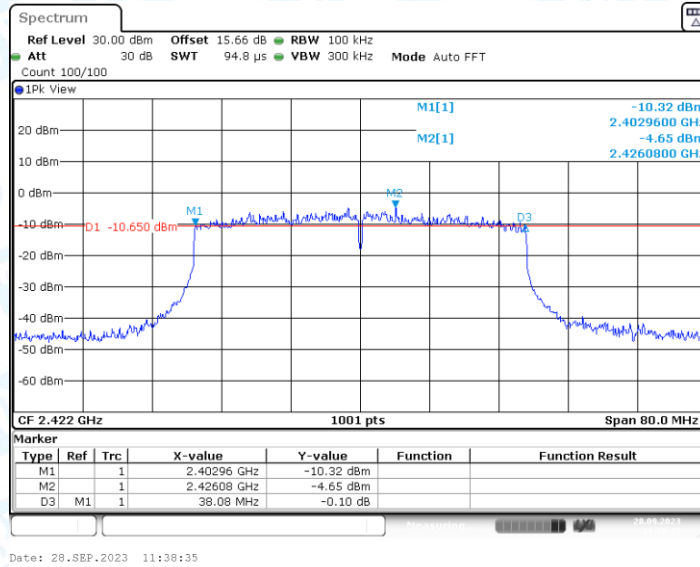
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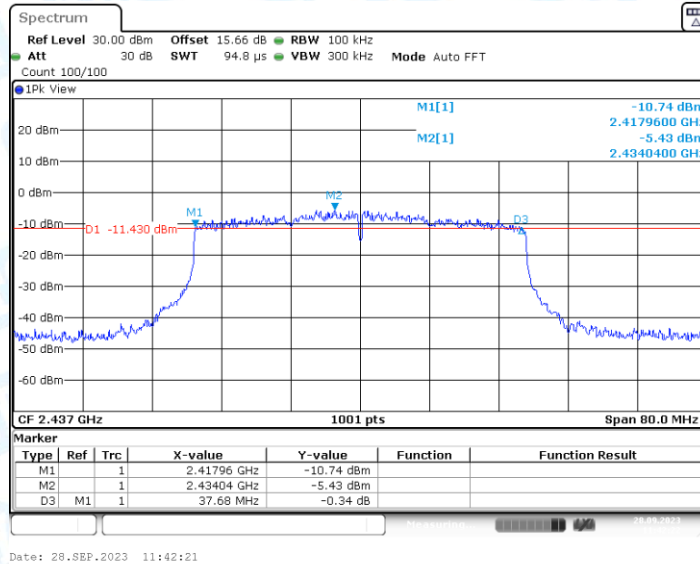
11AX20SISO_Ant1_2462



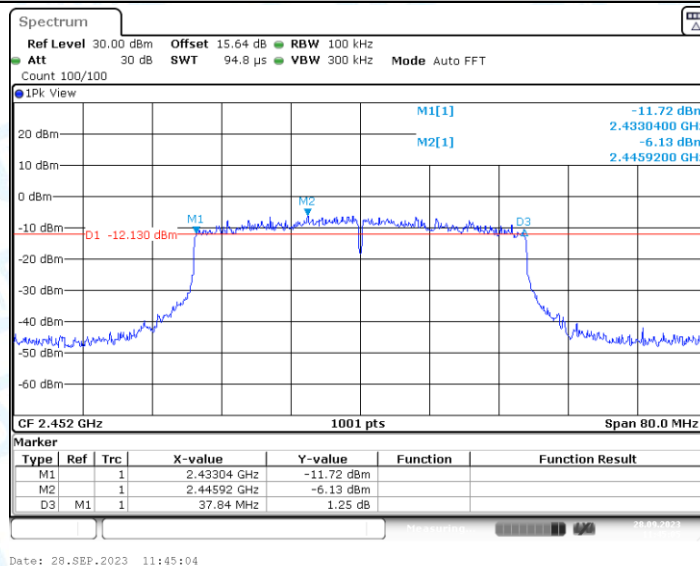
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



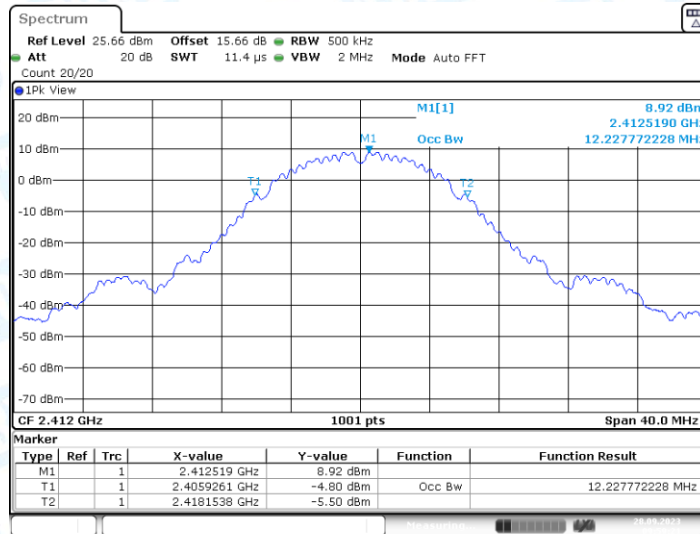
2. Occupied Channel Bandwidth

2.1. Test Result

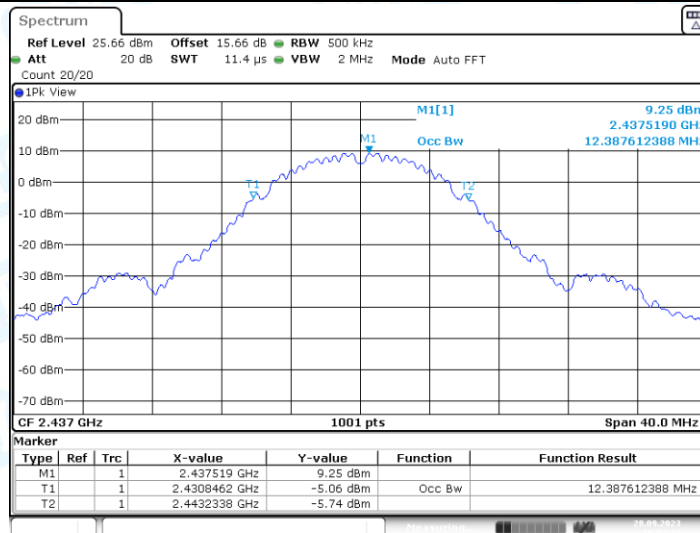
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.228	2405.9261	2418.1538	---	---
		2437	12.388	2430.8462	2443.2338	---	---
		2462	12.028	2456.0060	2468.0340	---	---
11G	Ant1	2412	17.303	2403.3287	2420.6314	---	---
		2437	17.383	2428.0889	2445.4715	---	---
		2462	17.542	2453.0090	2470.5514	---	---
11N20SISO	Ant1	2412	19.141	2402.6494	2421.7902	---	---
		2437	18.981	2427.5694	2446.5504	---	---
		2462	18.581	2452.7293	2471.3107	---	---
11N40SISO	Ant1	2422	36.444	2403.6983	2440.1419	---	---
		2437	36.683	2418.5385	2455.2218	---	---
		2452	36.683	2433.6983	2470.3816	---	---
11AX20SISO	Ant1	2412	19.141	2402.4895	2421.6304	---	---
		2437	19.461	2427.2098	2446.6703	---	---
		2462	19.101	2452.4096	2471.5105	---	---
11AX40SISO	Ant1	2422	37.962	2402.9790	2440.9411	---	---
		2437	37.882	2417.9790	2455.8611	---	---
		2452	37.882	2432.9790	2470.8611	---	---

2.2. Test Graphs

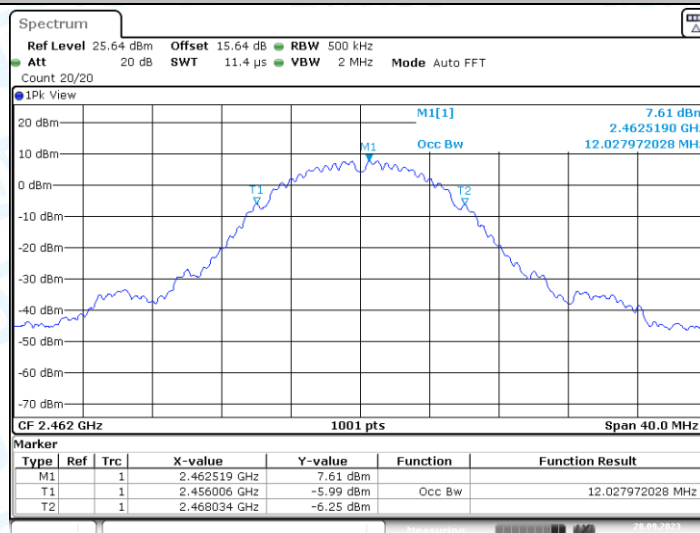
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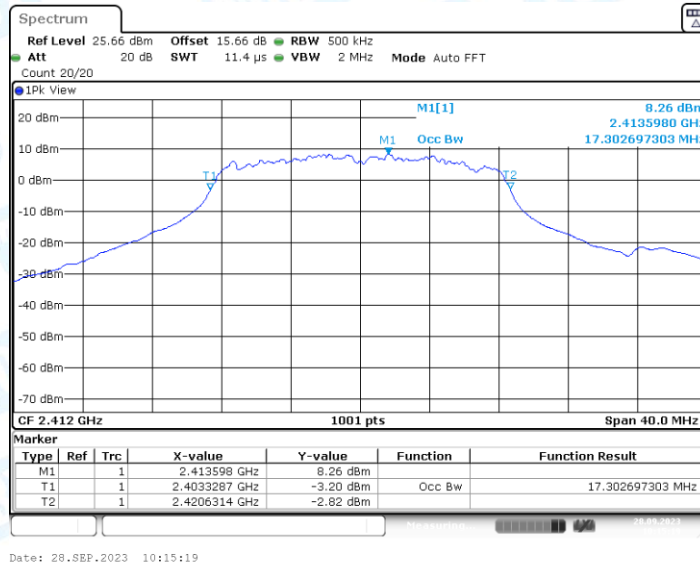
11B_Ant1_2437



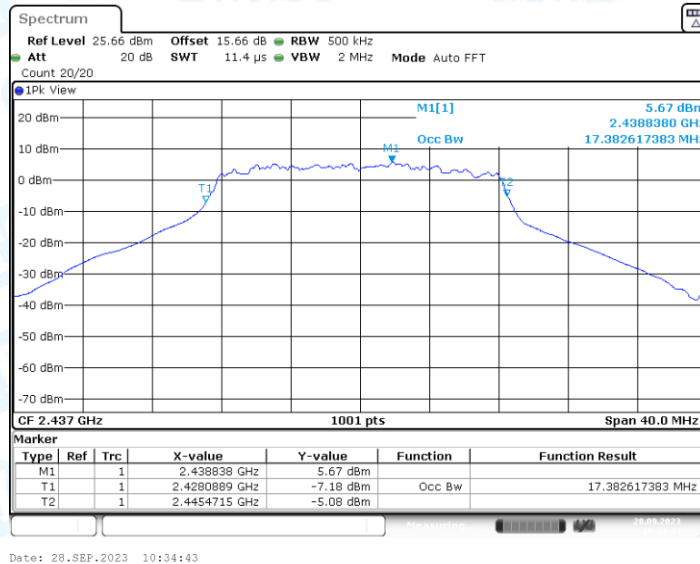
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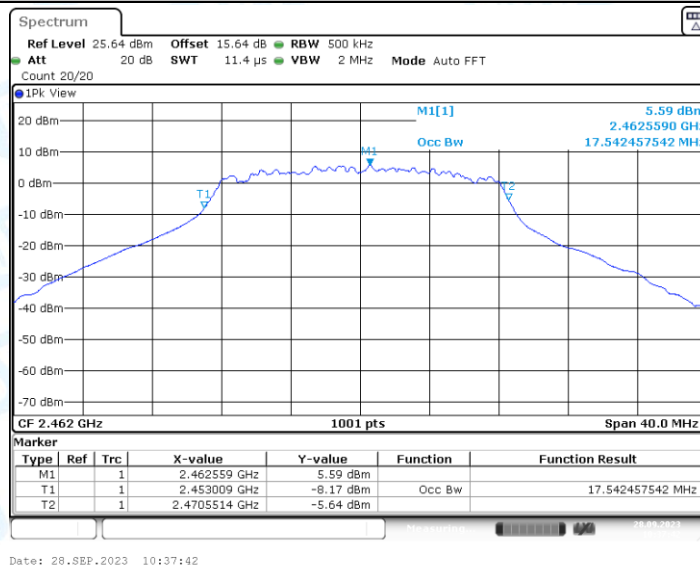
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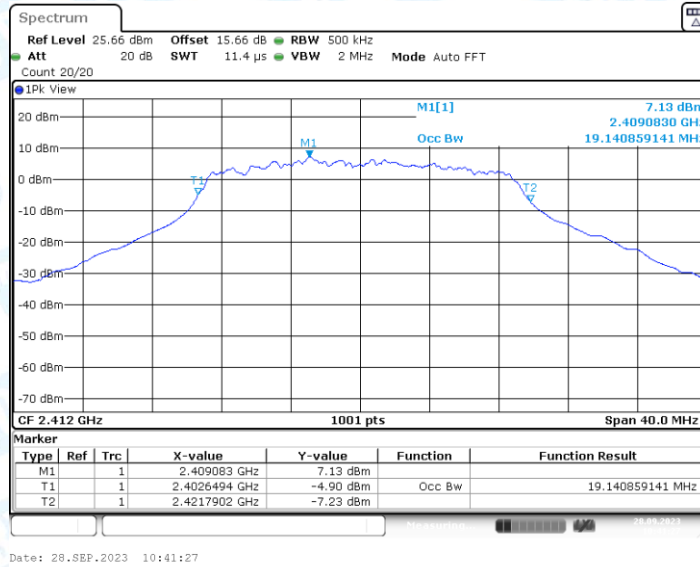
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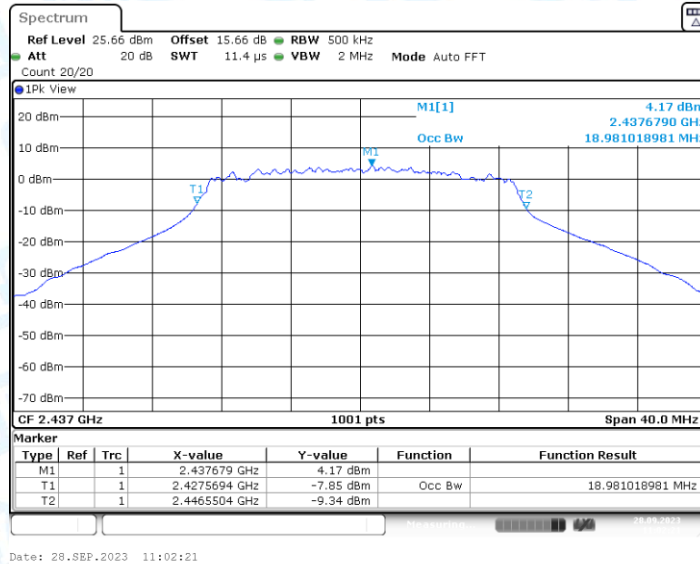
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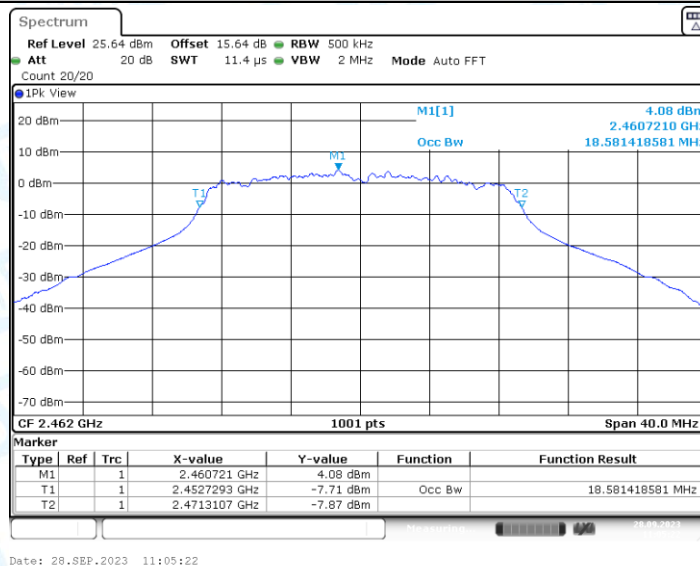
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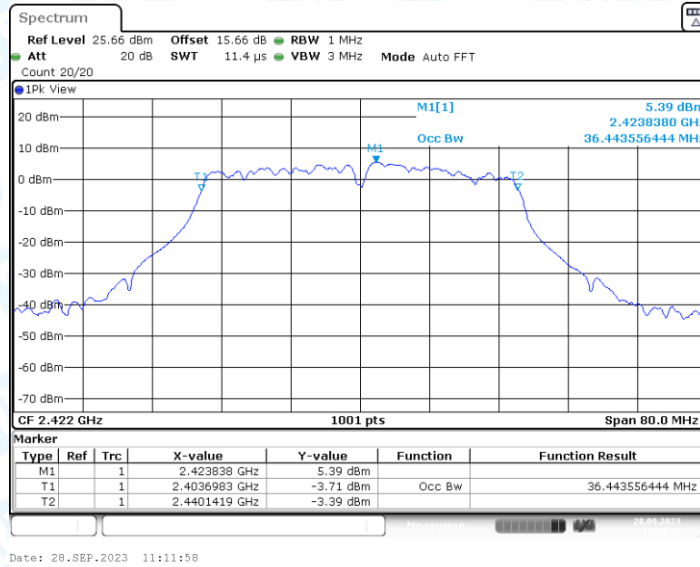
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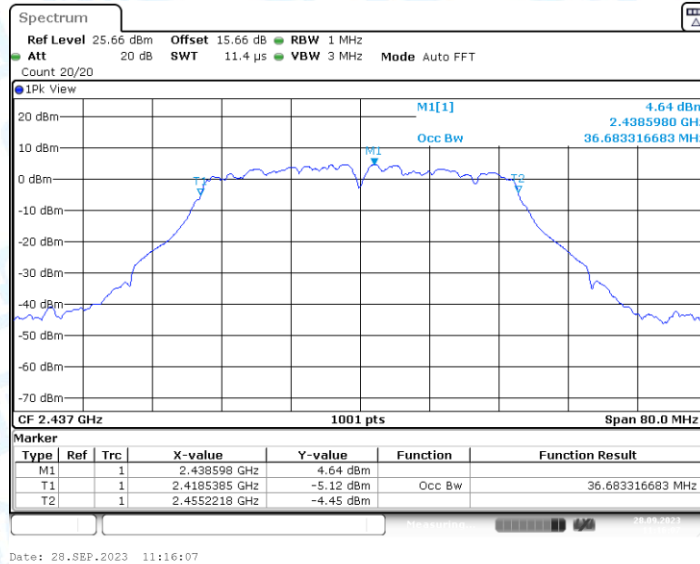
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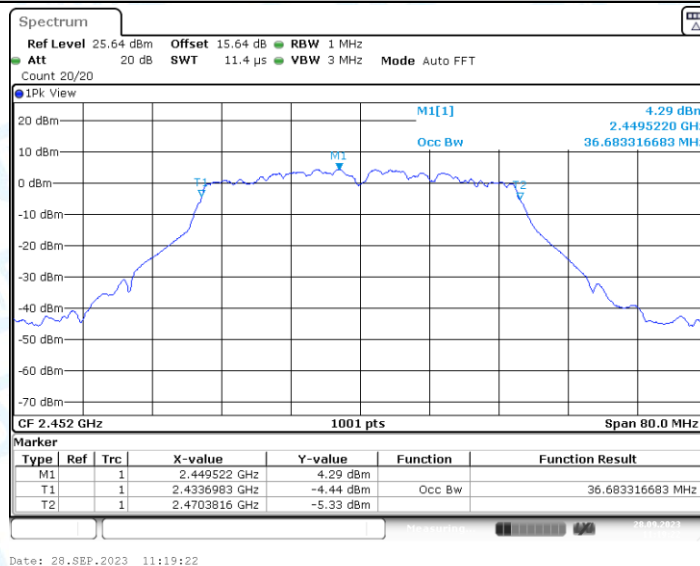
11N40SISO_Ant1_2422



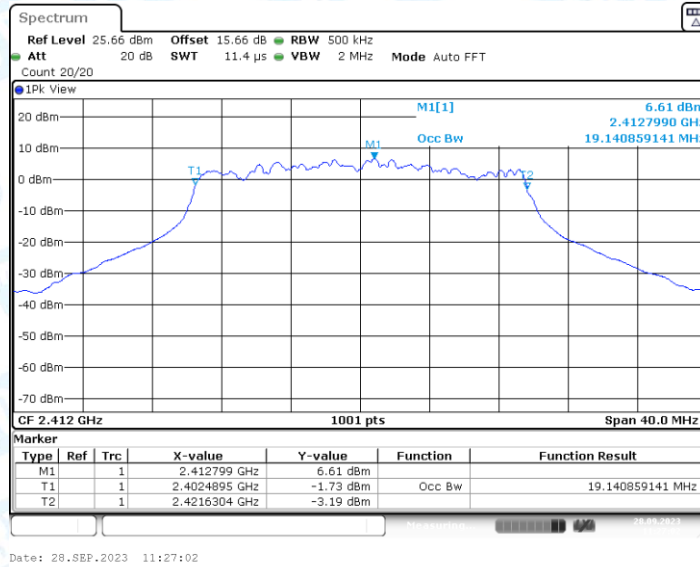
11N40SISO_Ant1_2437



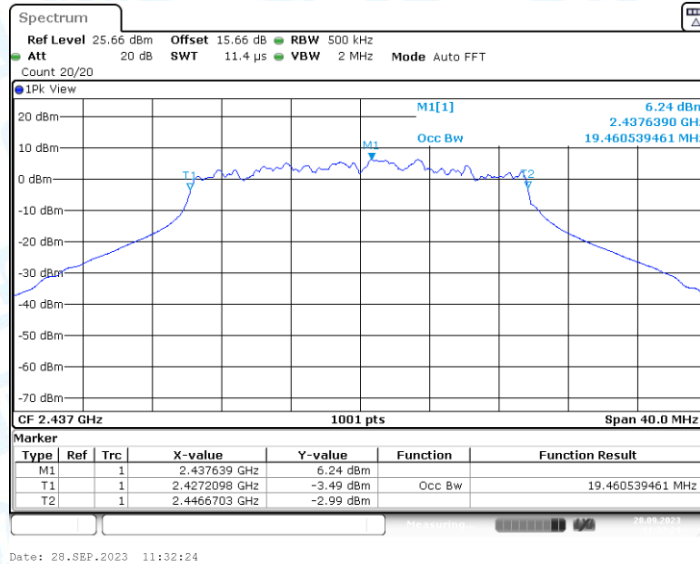
11N40SISO_Ant1_2452



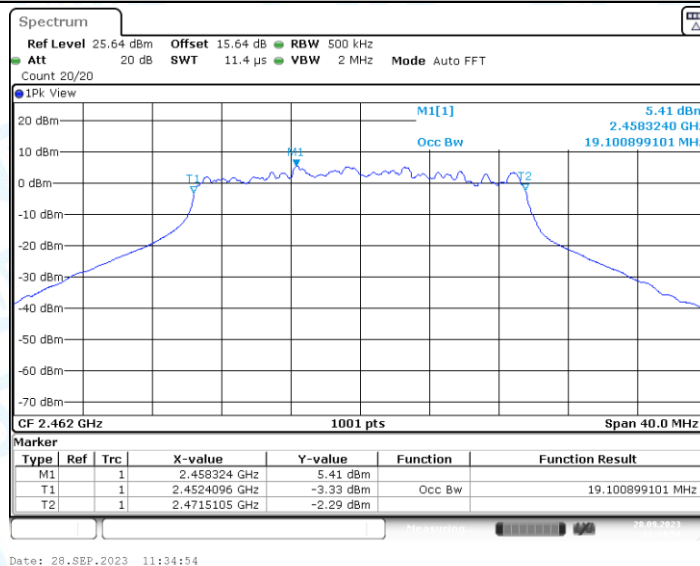
11AX20SISO_Ant1_2412



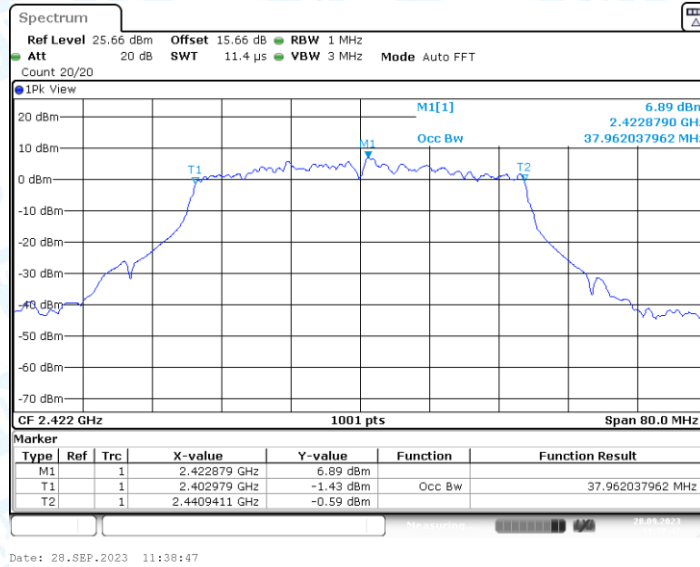
11AX20SISO_Ant1_2437



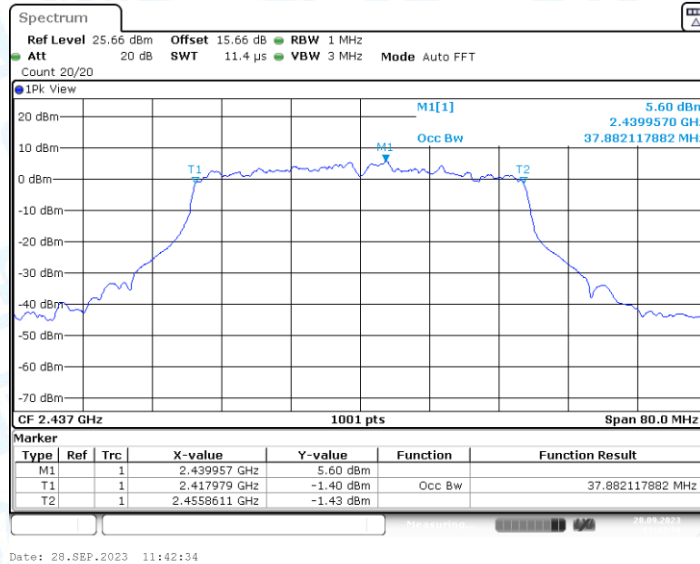
11AX20SISO_Ant1_2462



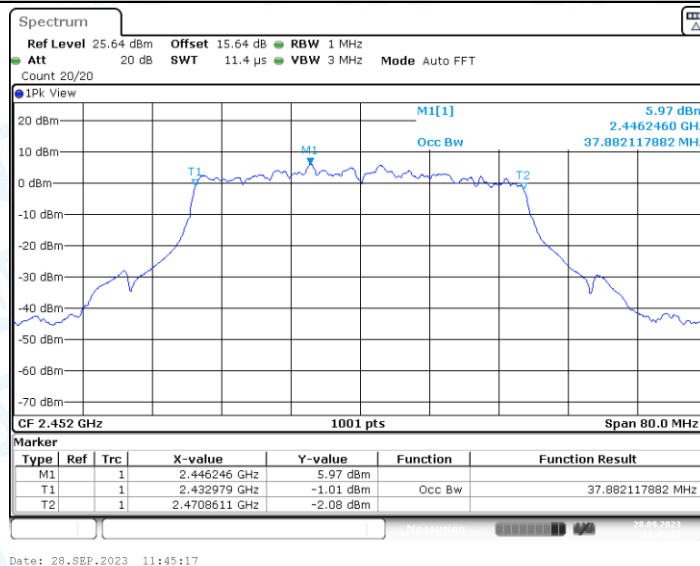
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



3. Maximum conducted output power

3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	16.98	≤30.00	PASS
		2437	17.32	≤30.00	PASS
		2462	15.67	≤30.00	PASS
11G	Ant1	2412	13.87	≤30.00	PASS
		2437	13.27	≤30.00	PASS
		2462	12.72	≤30.00	PASS
11N20SISO	Ant1	2412	12.10	≤30.00	PASS
		2437	11.55	≤30.00	PASS
		2462	10.95	≤30.00	PASS
11N40SISO	Ant1	2422	12.06	≤30.00	PASS
		2437	11.73	≤30.00	PASS
		2452	11.31	≤30.00	PASS
11AX20SISO	Ant1	2412	11.88	≤30.00	PASS
		2437	11.33	≤30.00	PASS
		2462	10.87	≤30.00	PASS
11AX40SISO	Ant1	2422	11.96	≤30.00	PASS
		2437	11.68	≤30.00	PASS
		2452	11.30	≤30.00	PASS

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

4. Maximum power spectral density

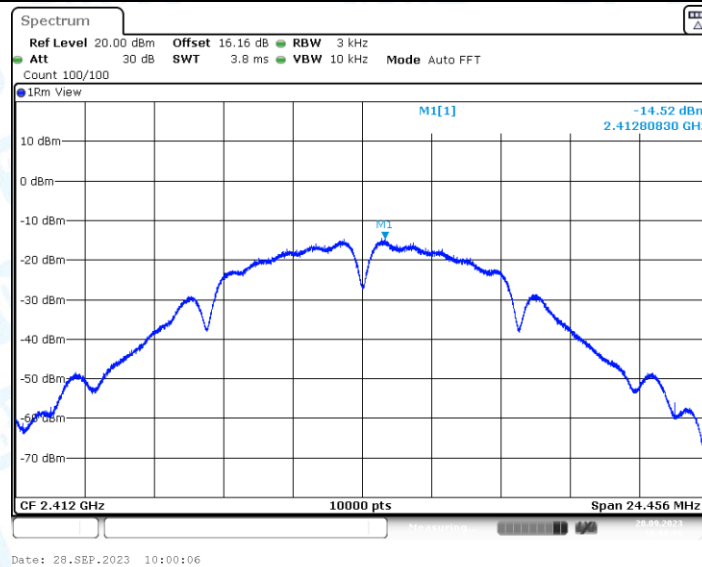
4.1. Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-14.52	≤8.00	PASS
		2437	-14.36	≤8.00	PASS
		2462	-16.06	≤8.00	PASS
11G	Ant1	2412	-20.49	≤8.00	PASS
		2437	-20.82	≤8.00	PASS
		2462	-21.40	≤8.00	PASS
11N20SISO	Ant1	2412	-23.07	≤8.00	PASS
		2437	-22.94	≤8.00	PASS
		2462	-23.42	≤8.00	PASS
11N40SISO	Ant1	2422	-25.52	≤8.00	PASS
		2437	-26.02	≤8.00	PASS
		2452	-26.19	≤8.00	PASS
11AX20SISO	Ant1	2412	-23.31	≤8.00	PASS
		2437	-24.19	≤8.00	PASS
		2462	-24.60	≤8.00	PASS
11AX40SISO	Ant1	2422	-27.05	≤8.00	PASS
		2437	-26.75	≤8.00	PASS
		2452	-27.50	≤8.00	PASS

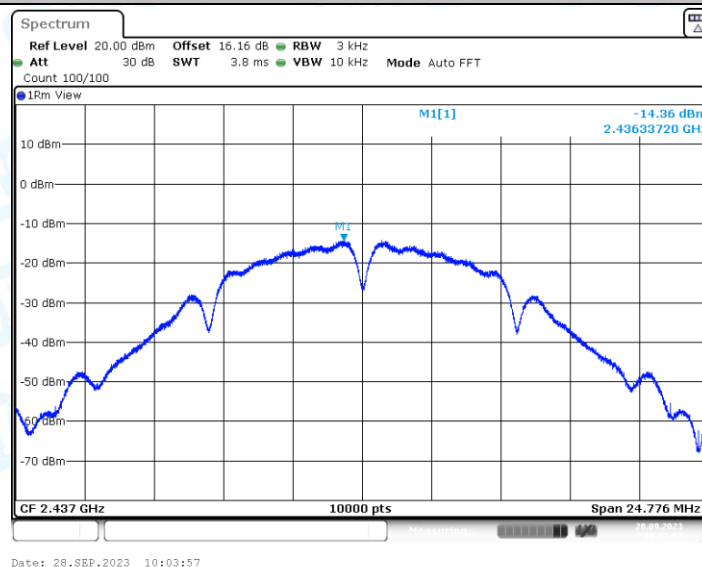
Note: The Duty Cycle Factor is compensated in the graph.

4.2. Test Graphs

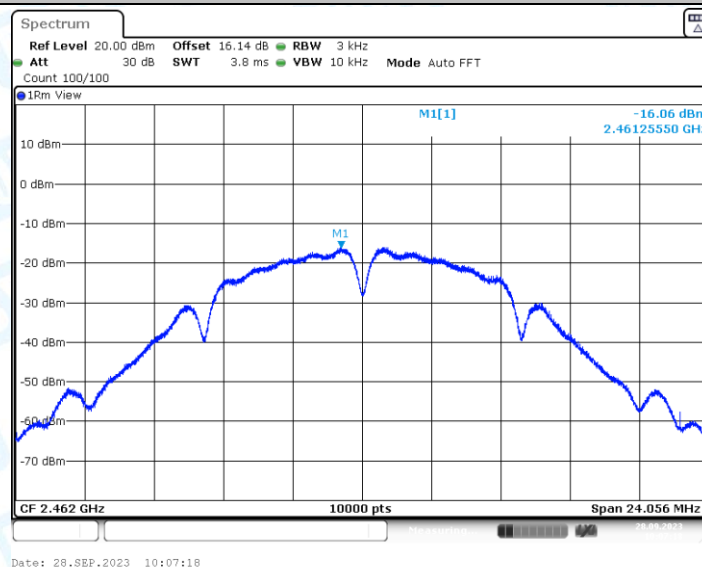
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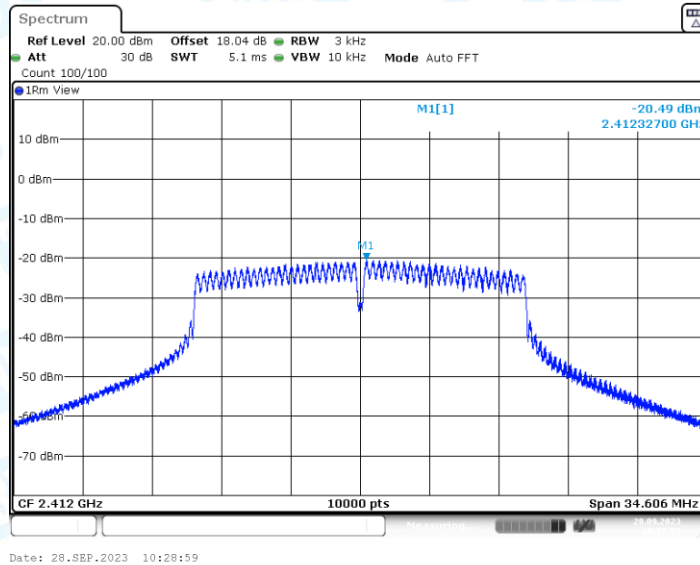
11B_Ant1_2437



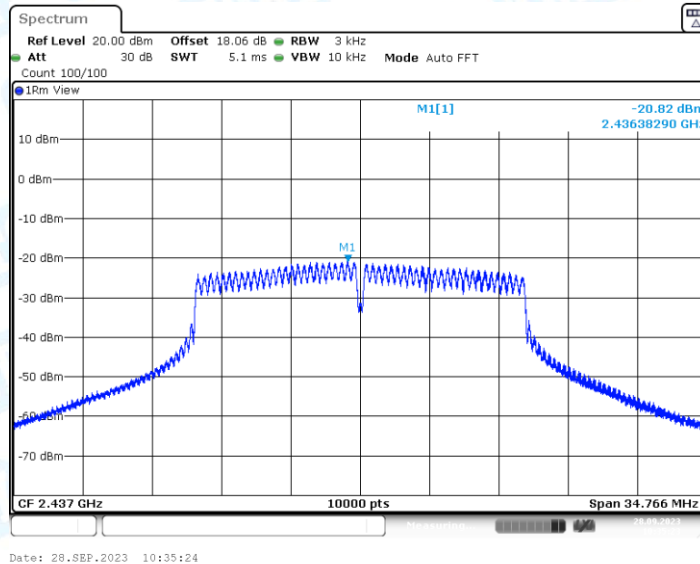
11B_Ant1_2462



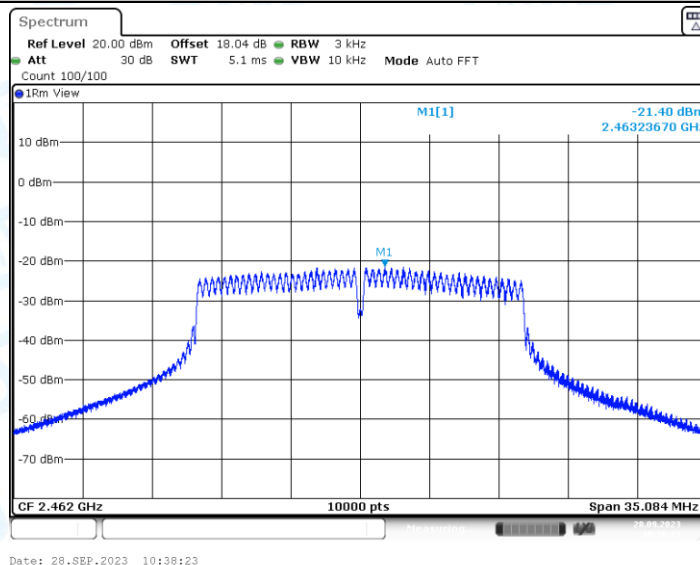
11G_Ant1_2412



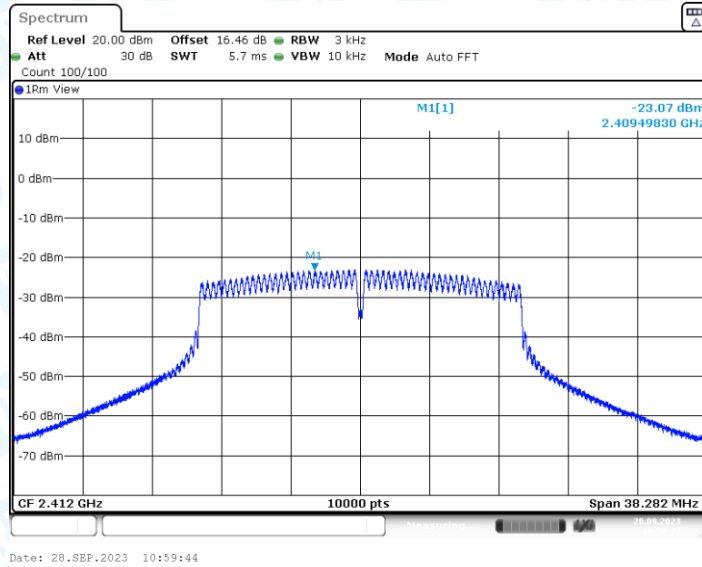
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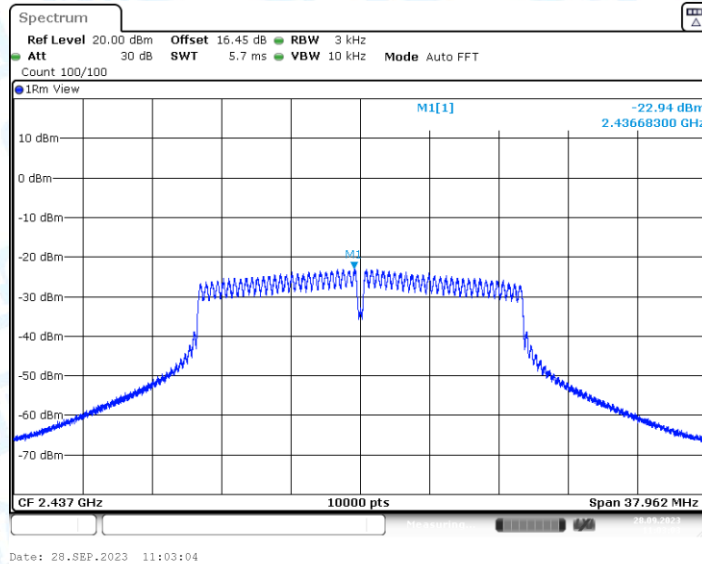
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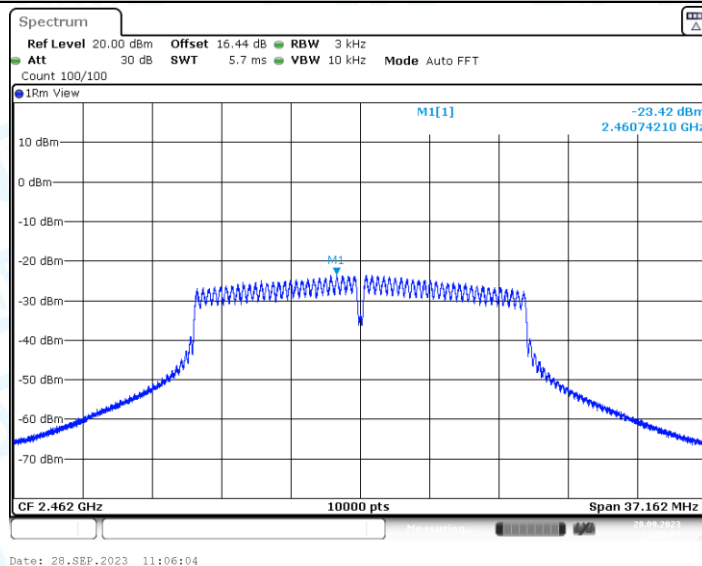
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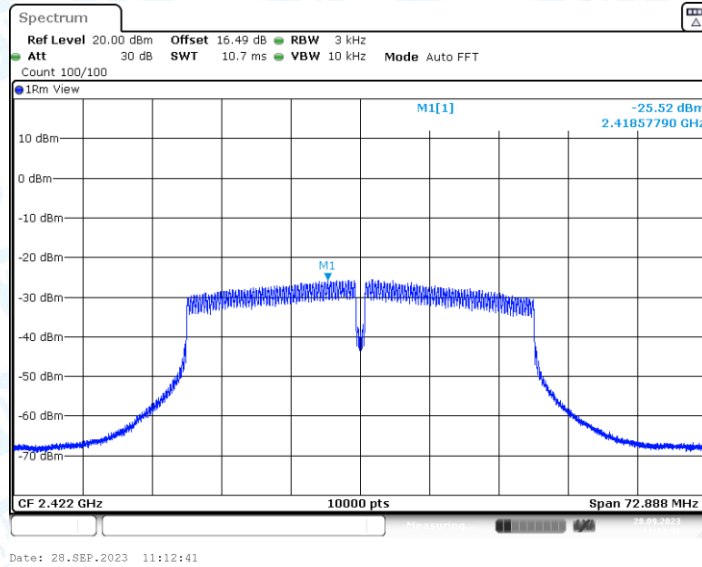
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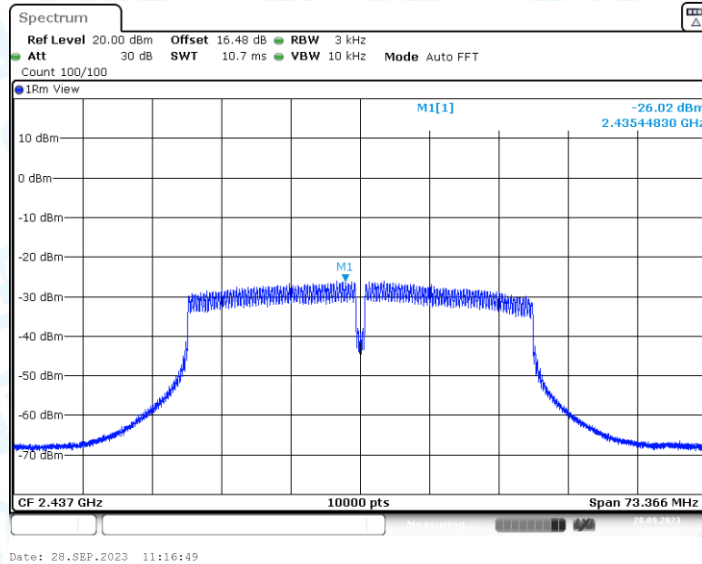
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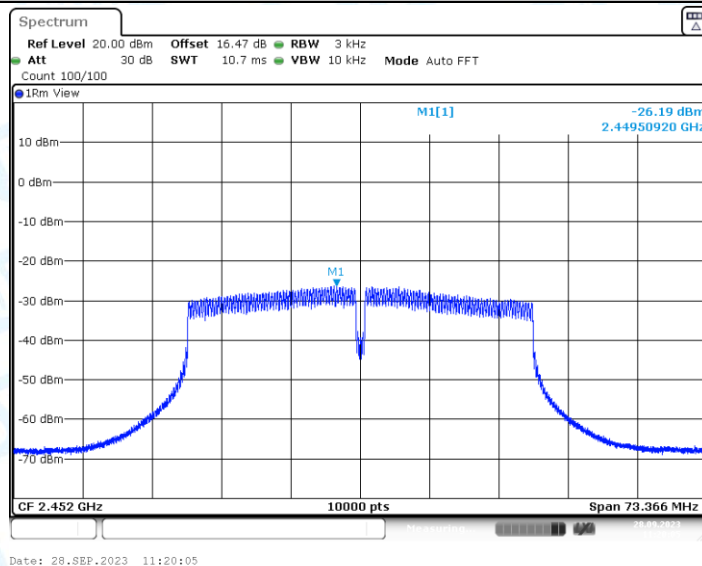
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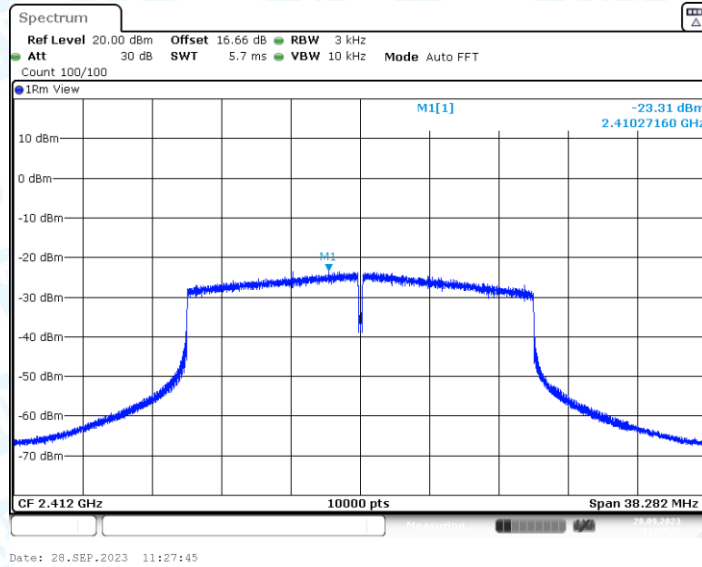
11N40SISO_Ant1_2437



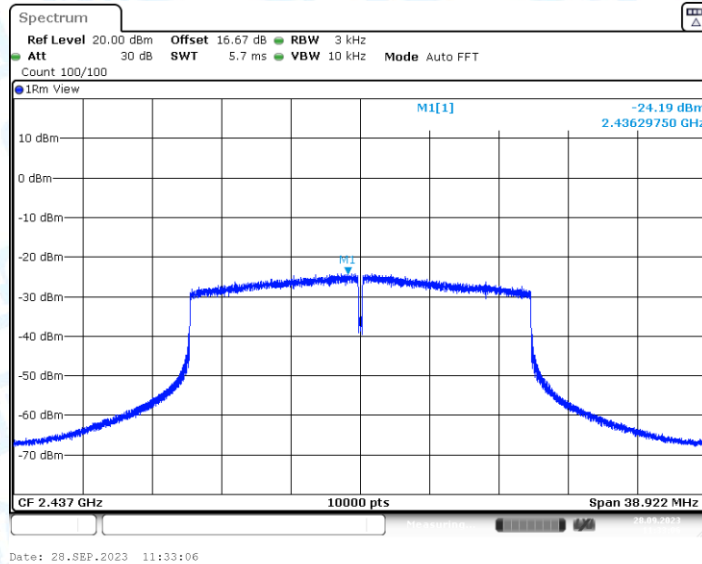
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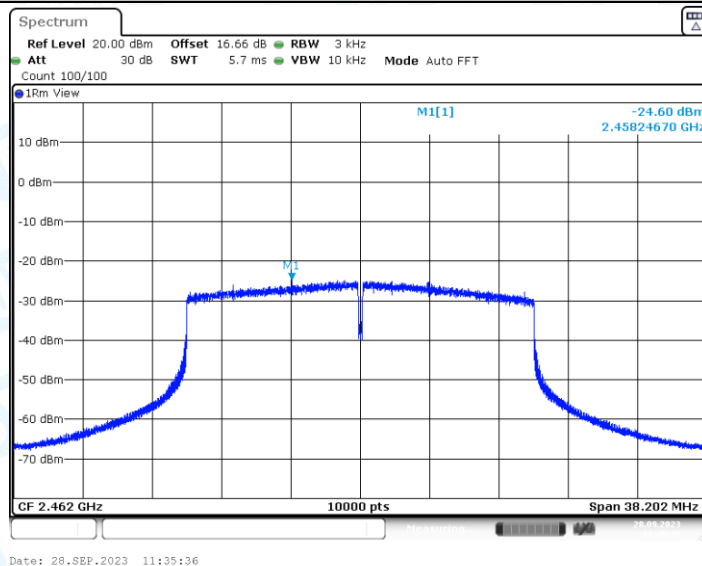
11AX20SISO_Ant1_2412



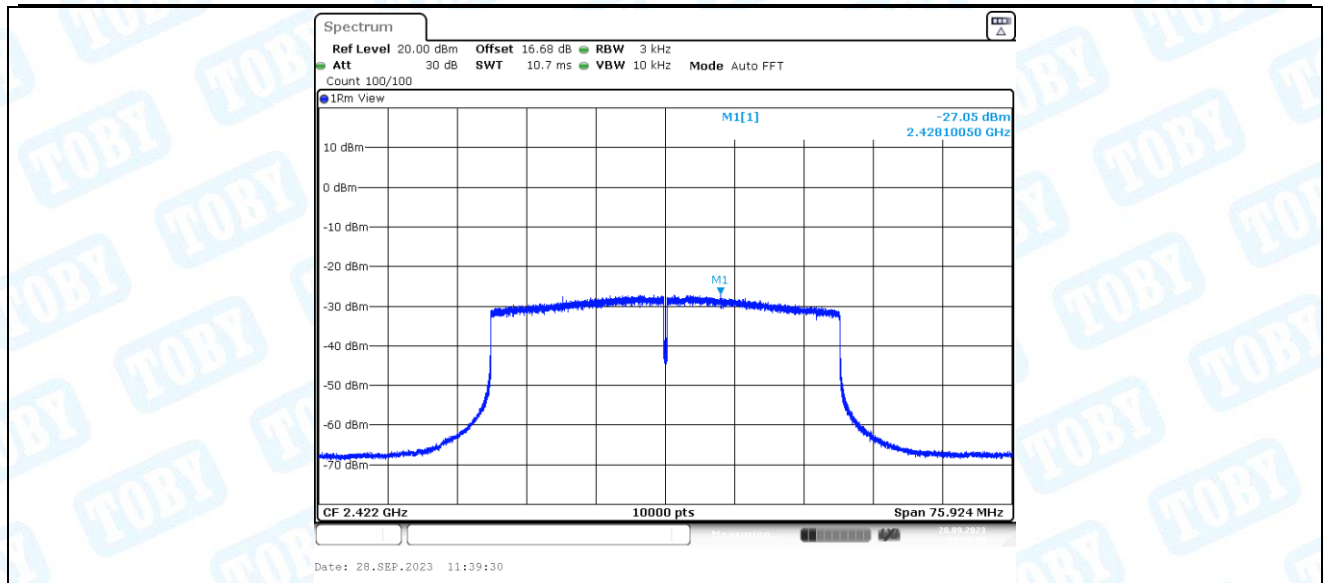
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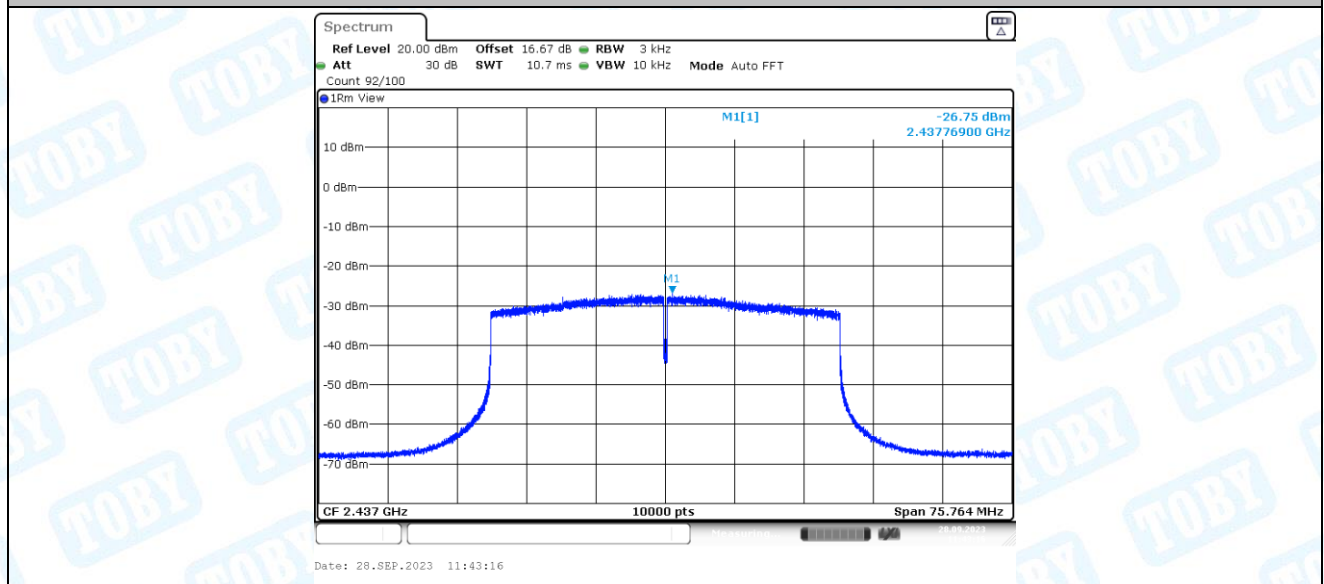
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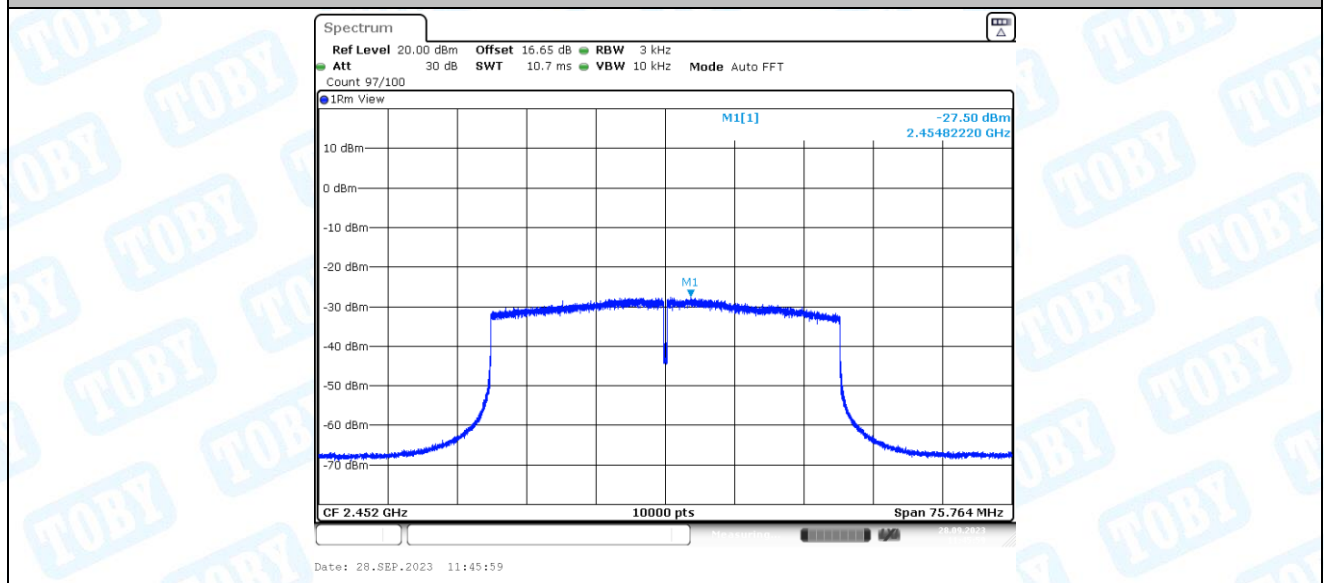
11AX40SISO_Ant1_2422



11AX40SISO_Ant1_2437



11AX40SISO_Ant1_2452



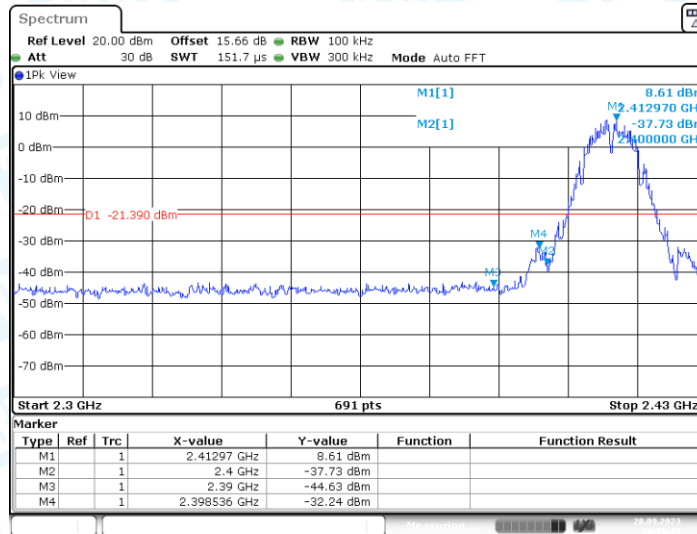
5. Band edge measurements

5.1. Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	8.61	-32.24	≤-21.39	PASS
		High	2462	6.87	-41.88	≤-23.13	PASS
11G	Ant1	Low	2412	2.18	-28.47	≤-27.82	PASS
		High	2462	0.24	-48.99	≤-29.76	PASS
11N20SISO	Ant1	Low	2412	0.65	-29.66	≤-29.35	PASS
		High	2462	-3.09	-49.91	≤-33.09	PASS
11N40SISO	Ant1	Low	2422	-5.29	-35.54	≤-35.29	PASS
		High	2452	-2.83	-48.28	≤-32.83	PASS
11AX20SISO	Ant1	Low	2412	-1.78	-33.37	≤-31.78	PASS
		High	2462	-2.53	-48.1	≤-32.53	PASS
11AX40SISO	Ant1	Low	2422	-5.69	-36.42	≤-35.69	PASS
		High	2452	-5.46	-49.08	≤-35.46	PASS

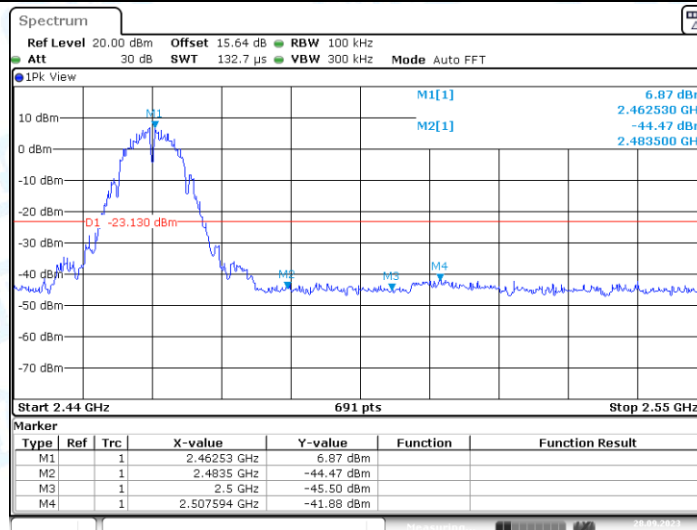
5.2. Test Graphs

11B_Ant1_Low_2412



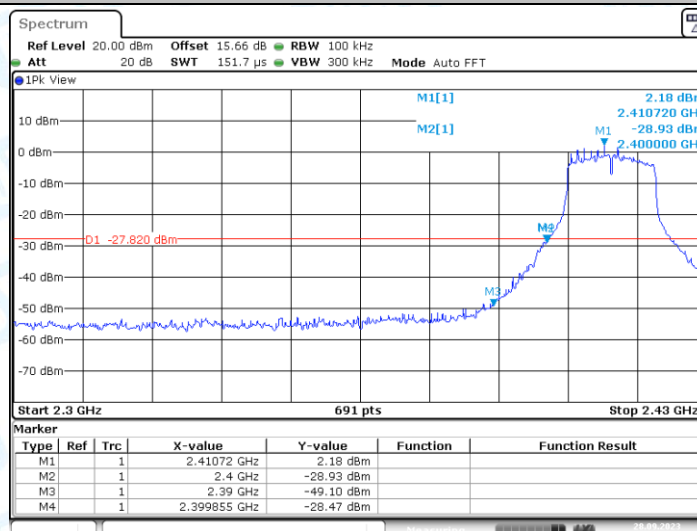
Date: 28.SEP.2023 10:00:16

11B_Ant1_High_2462



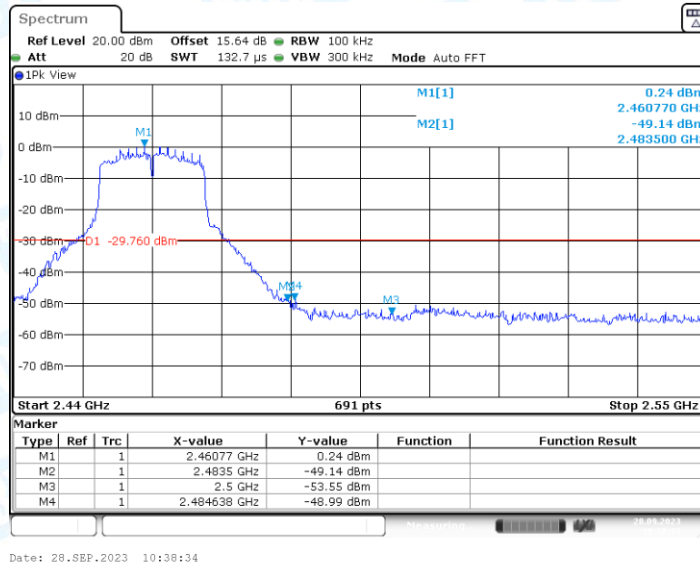
Date: 28.SEP.2023 10:07:28

11G_Ant1_Low_2412

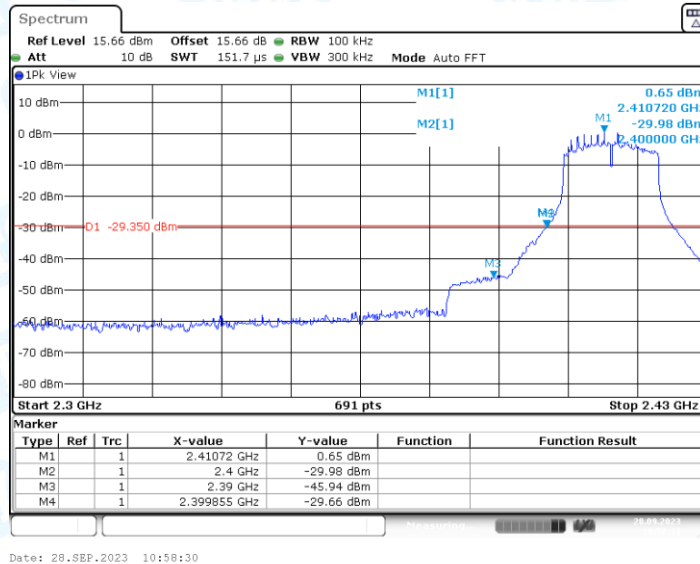


Date: 28.SEP.2023 10:29:10

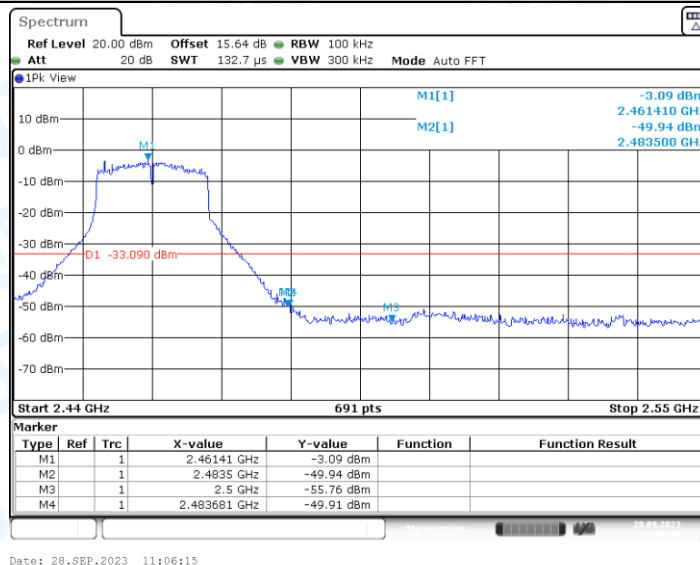
11G_Ant1_High_2462



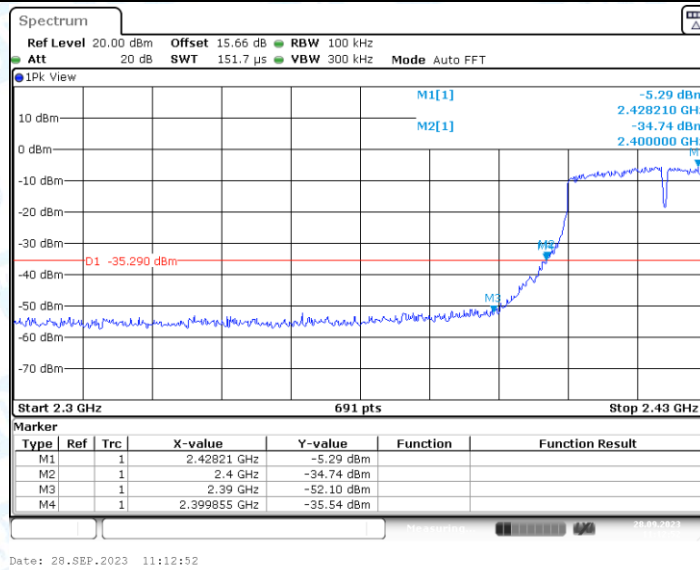
11N20SISO_Ant1_Low_2412



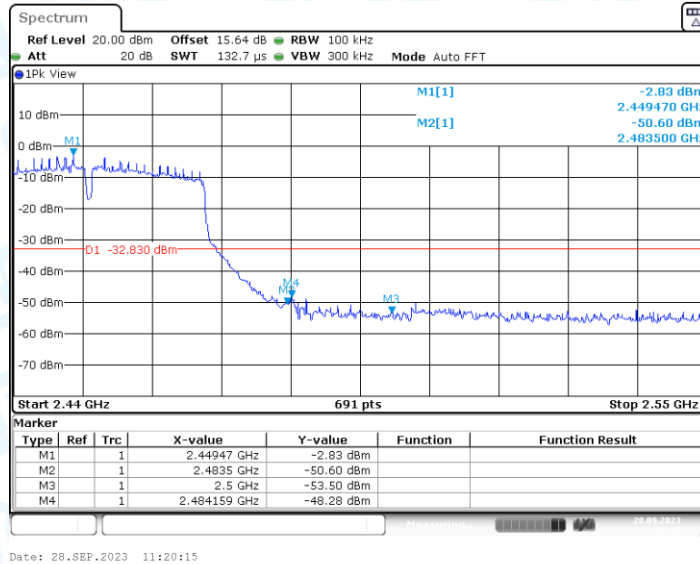
11N20SISO_Ant1_High_2462



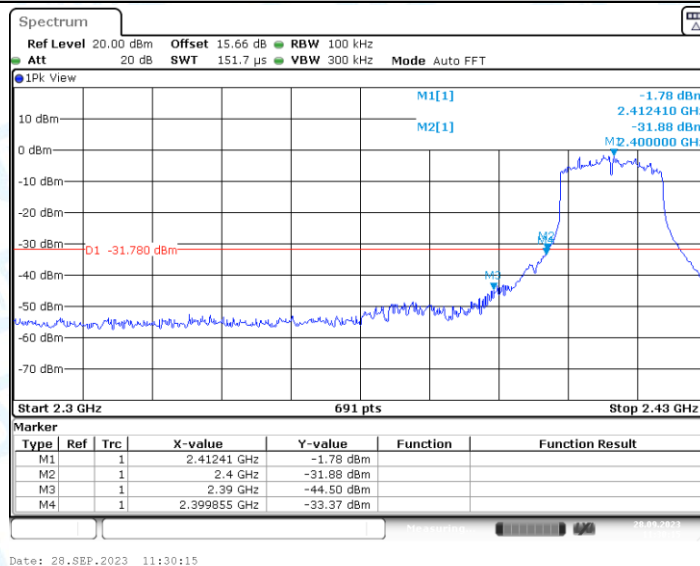
11N40SISO_Ant1_Low_2422



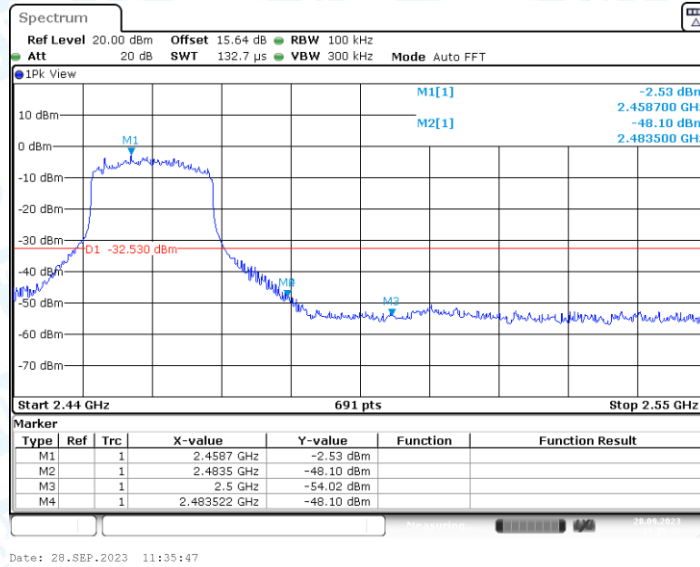
11N40SISO_Ant1_High_2452



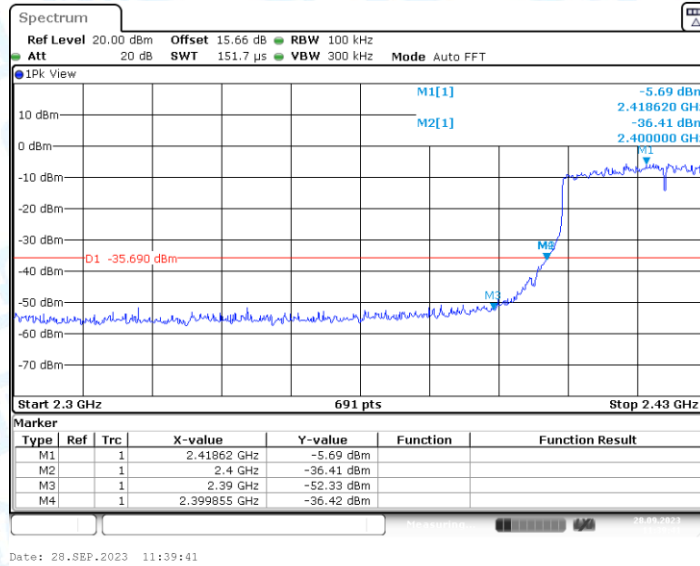
11AX20SISO_Ant1_Low_2412



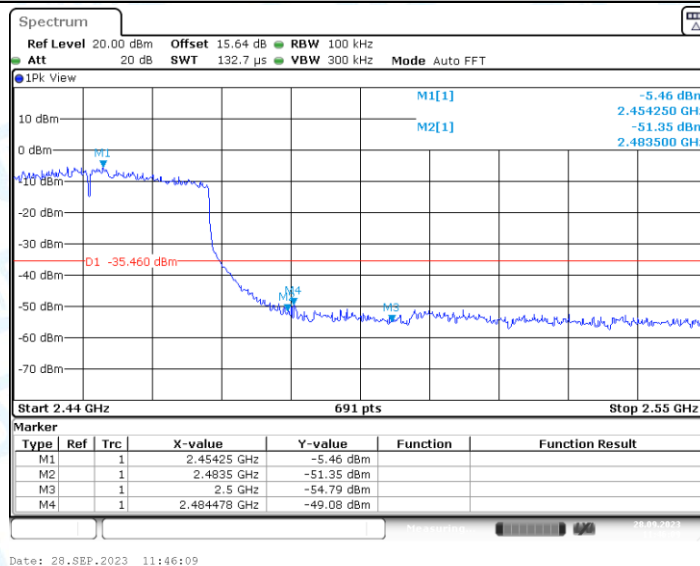
11AX20SISO_Ant1_High_2462



11AX40SISO_Ant1_Low_2422



11AX40SISO_Ant1_High_2452



6. Conducted Spurious Emission

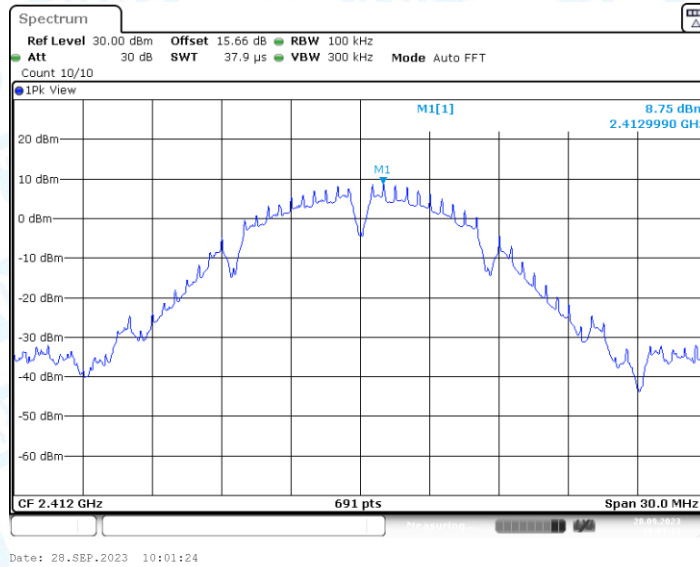
6.1. Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	8.75	8.75	---	PASS
			30~1000	8.75	-52.08	≤-21.25	PASS
			1000~26500	8.75	-44.35	≤-21.25	PASS
		2437	Reference	8.95	8.95	---	PASS
			30~1000	8.95	-52.36	≤-21.05	PASS
			1000~26500	8.95	-43.97	≤-21.05	PASS
		2462	Reference	7.40	7.40	---	PASS
			30~1000	7.40	-52.95	≤-22.6	PASS
			1000~26500	7.40	-43.94	≤-22.6	PASS
11G	Ant1	2412	Reference	1.70	1.70	---	PASS
			30~1000	1.70	-53.31	≤-28.3	PASS
			1000~26500	1.70	-43.61	≤-28.3	PASS
		2437	Reference	-0.10	-0.10	---	PASS
			30~1000	-0.10	-52.4	≤-30.1	PASS
			1000~26500	-0.10	-44.75	≤-30.1	PASS
		2462	Reference	1.26	1.26	---	PASS
			30~1000	1.26	-52.75	≤-28.74	PASS
			1000~26500	1.26	-44.67	≤-28.74	PASS
11N20SISO	Ant1	2412	Reference	-1.43	-1.43	---	PASS
			30~1000	-1.43	-53.17	≤-31.43	PASS
			1000~26500	-1.43	-44.29	≤-31.43	PASS
		2437	Reference	-2.08	-2.08	---	PASS
			30~1000	-2.08	-53.39	≤-32.08	PASS
			1000~26500	-2.08	-44.42	≤-32.08	PASS
		2462	Reference	-0.41	-0.41	---	PASS
			30~1000	-0.41	-51.96	≤-30.41	PASS
			1000~26500	-0.41	-43.99	≤-30.41	PASS
11N40SISO	Ant1	2422	Reference	-2.35	-2.35	---	PASS
			30~1000	-2.35	-51.7	≤-32.35	PASS
			1000~26500	-2.35	-44.31	≤-32.35	PASS
		2437	Reference	-4.14	-4.14	---	PASS
			30~1000	-4.14	-51.93	≤-34.14	PASS
			1000~26500	-4.14	-43.92	≤-34.14	PASS
		2452	Reference	-3.30	-3.30	---	PASS
			30~1000	-3.30	-53.54	≤-33.3	PASS
			1000~26500	-3.30	-43.64	≤-33.3	PASS
11AX20SISO	Ant1	2412	Reference	0.53	0.53	---	PASS
			30~1000	0.53	-52.63	≤-29.47	PASS
			1000~26500	0.53	-43.87	≤-29.47	PASS
		2437	Reference	0.15	0.15	---	PASS

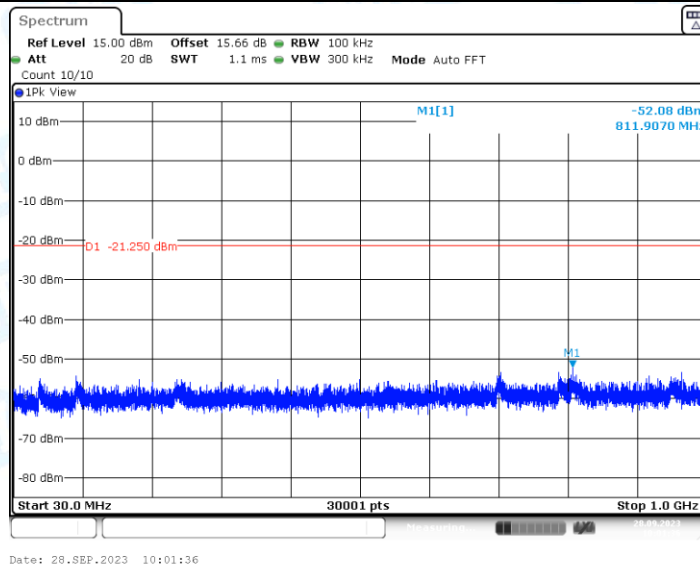
		2462	30~1000	0.15	-53.46	≤ -29.85	PASS
			1000~26500	0.15	-43.72	≤ -29.85	PASS
			Reference	-1.18	-1.18	---	PASS
			30~1000	-1.18	-52.45	≤ -31.18	PASS
			1000~26500	-1.18	-44.67	≤ -31.18	PASS
11AX40SISO	Ant1	2422	Reference	-5.02	-5.02	---	PASS
			30~1000	-5.02	-52.98	≤ -35.02	PASS
			1000~26500	-5.02	-43.99	≤ -35.02	PASS
		2437	Reference	-3.72	-3.72	---	PASS
			30~1000	-3.72	-53.26	≤ -33.72	PASS
			1000~26500	-3.72	-44.69	≤ -33.72	PASS
		2452	Reference	-5.46	-5.46	---	PASS
			30~1000	-5.46	-53.53	≤ -35.46	PASS
			1000~26500	-5.46	-43.62	≤ -35.46	PASS

6.2. Test Graphs

11B_Ant1_2412_0~Reference



11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500

