

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

General Description of EUT	
Product Name:	K3
Test Model:	DV8919
Sample ID:	HC-C-202311-0309-01-01
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	44%
Test Voltage:	DC 5V
Test Engineer:	Zhen Zhou
Note: For a more detailed features description, please refer to the report TBR-C-202311-0309-4.	

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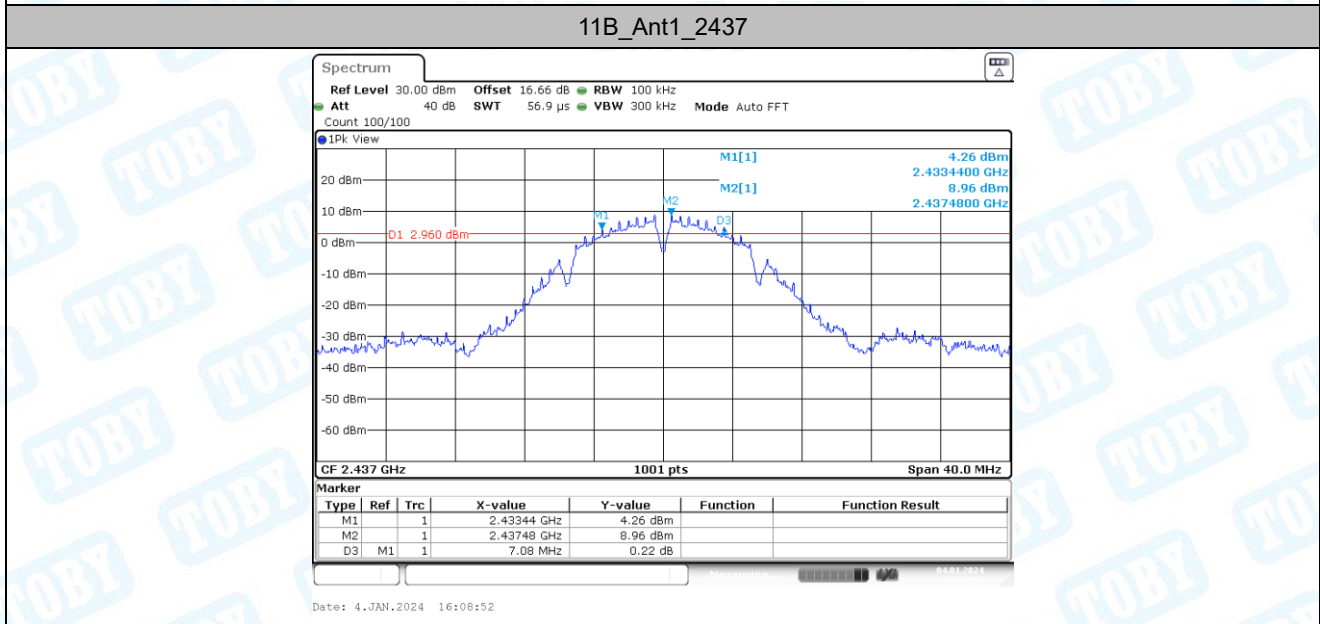
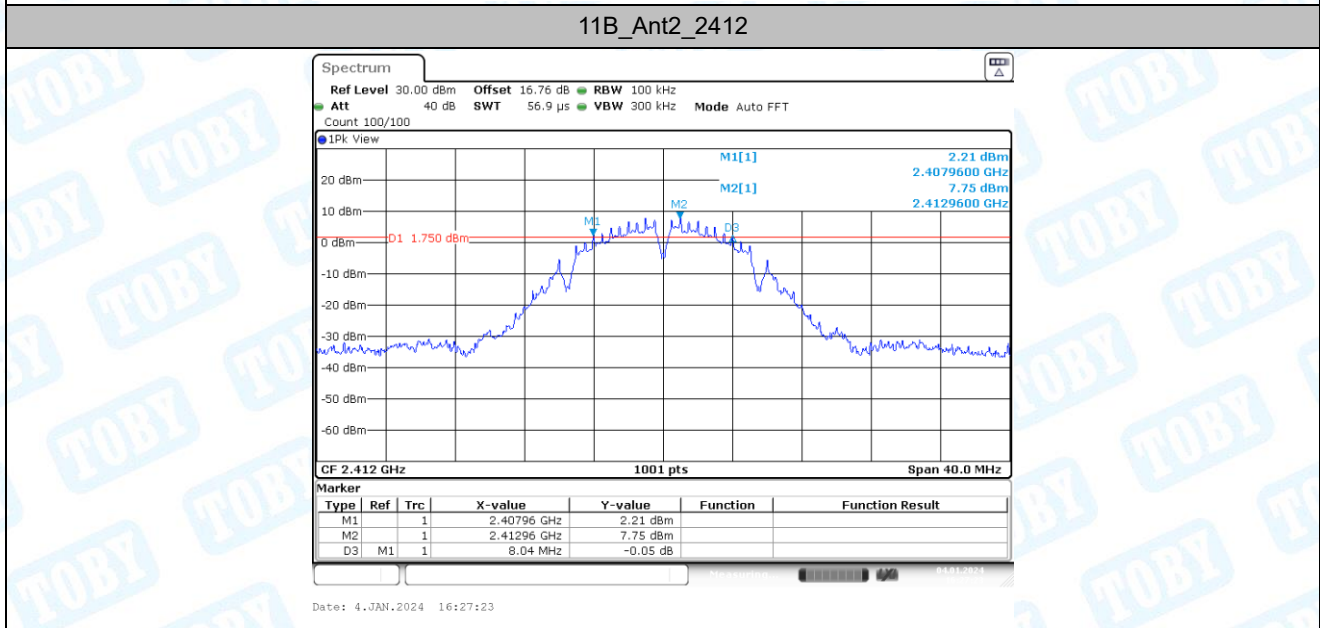
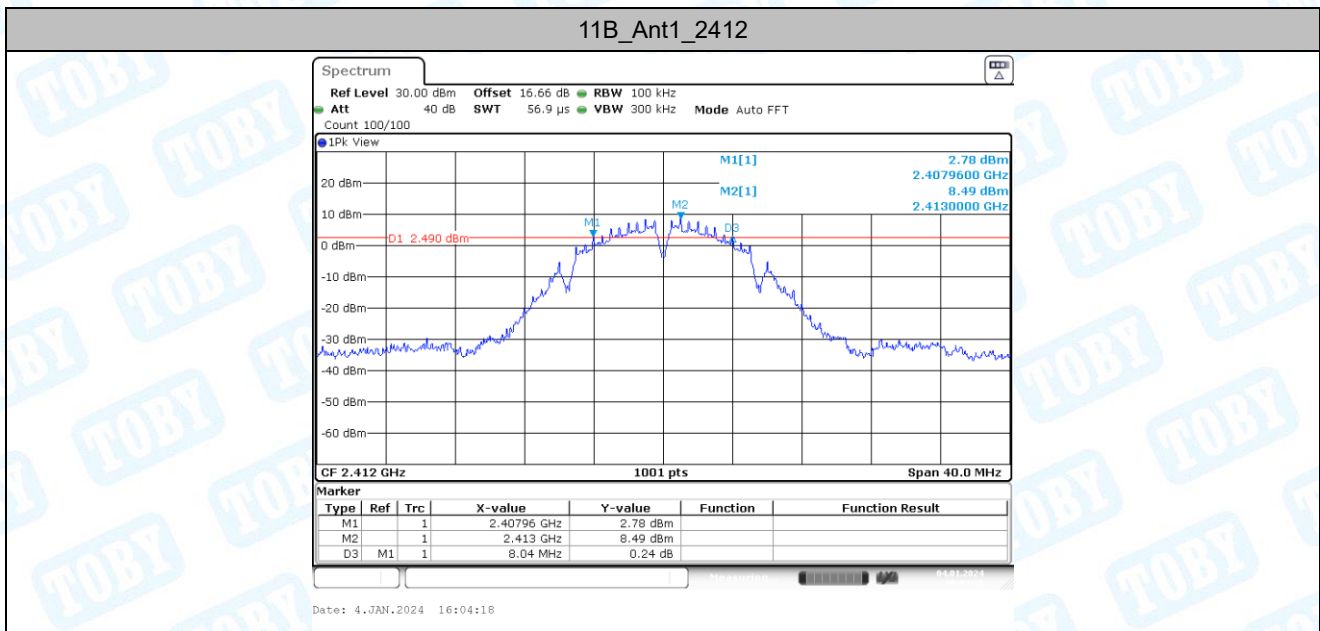
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1. DTS Bandwidth

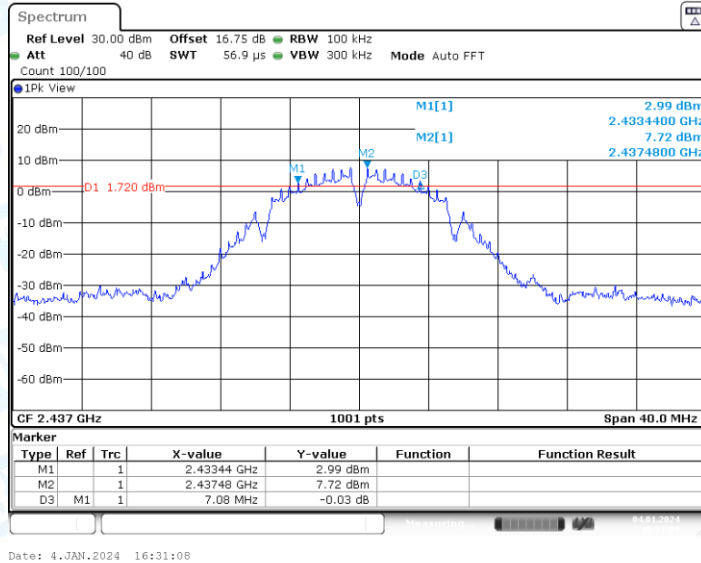
1.1. Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant2	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant1	2437	7.08	2433.44	2440.52	0.5	PASS
	Ant2	2437	7.08	2433.44	2440.52	0.5	PASS
	Ant1	2462	8.04	2457.96	2466.00	0.5	PASS
	Ant2	2462	8.04	2457.96	2466.00	0.5	PASS
11G	Ant1	2412	16.36	2403.80	2420.16	0.5	PASS
	Ant2	2412	16.36	2403.80	2420.16	0.5	PASS
	Ant1	2437	16.32	2428.84	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	16.36	2453.80	2470.16	0.5	PASS
11B-CDD	Ant1	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant2	2412	8.04	2407.96	2416.00	0.5	PASS
	Ant1	2437	7.08	2433.44	2440.52	0.5	PASS
	Ant2	2437	8.04	2432.96	2441.00	0.5	PASS
	Ant1	2462	8.04	2457.96	2466.00	0.5	PASS
	Ant2	2462	7.08	2458.44	2465.52	0.5	PASS
11G-CDD	Ant1	2412	16.36	2403.80	2420.16	0.5	PASS
	Ant2	2412	16.36	2403.80	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	16.36	2453.80	2470.16	0.5	PASS
11N20-CDD	Ant1	2412	17.60	2403.20	2420.80	0.5	PASS
	Ant2	2412	17.56	2403.20	2420.76	0.5	PASS
	Ant1	2437	17.56	2428.20	2445.76	0.5	PASS
	Ant2	2437	17.64	2428.16	2445.80	0.5	PASS
	Ant1	2462	17.68	2453.20	2470.88	0.5	PASS
	Ant2	2462	17.60	2453.16	2470.76	0.5	PASS
11AX20-CDD	Ant1	2412	18.28	2402.92	2421.20	0.5	PASS
	Ant2	2412	17.88	2403.24	2421.12	0.5	PASS
	Ant1	2437	17.28	2428.28	2445.56	0.5	PASS
	Ant2	2437	18.12	2427.84	2445.96	0.5	PASS
	Ant1	2462	18.52	2452.84	2471.36	0.5	PASS
	Ant2	2462	18.24	2452.92	2471.16	0.5	PASS

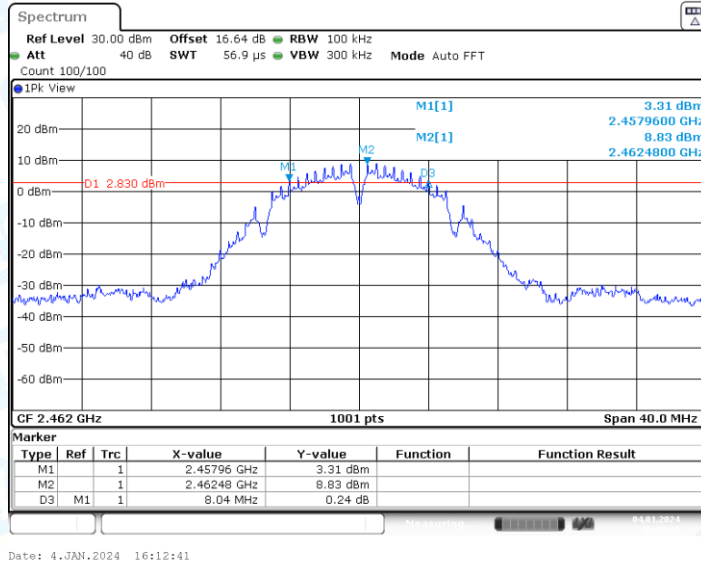
1.2. Test Graphs



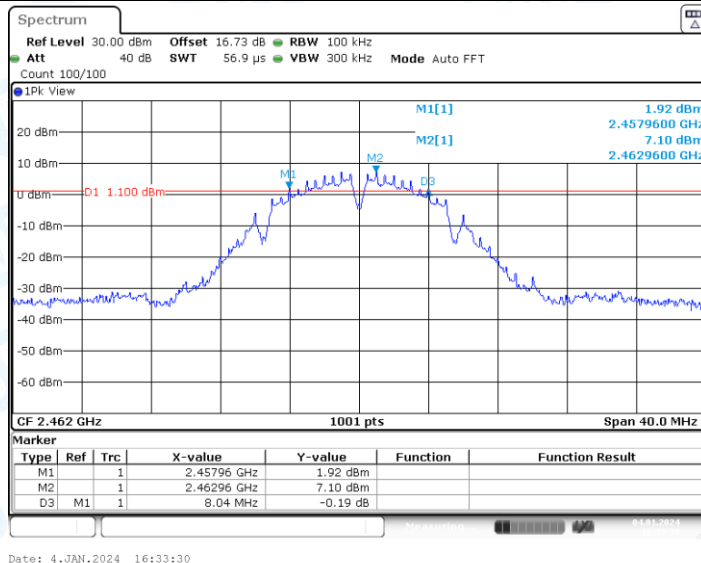
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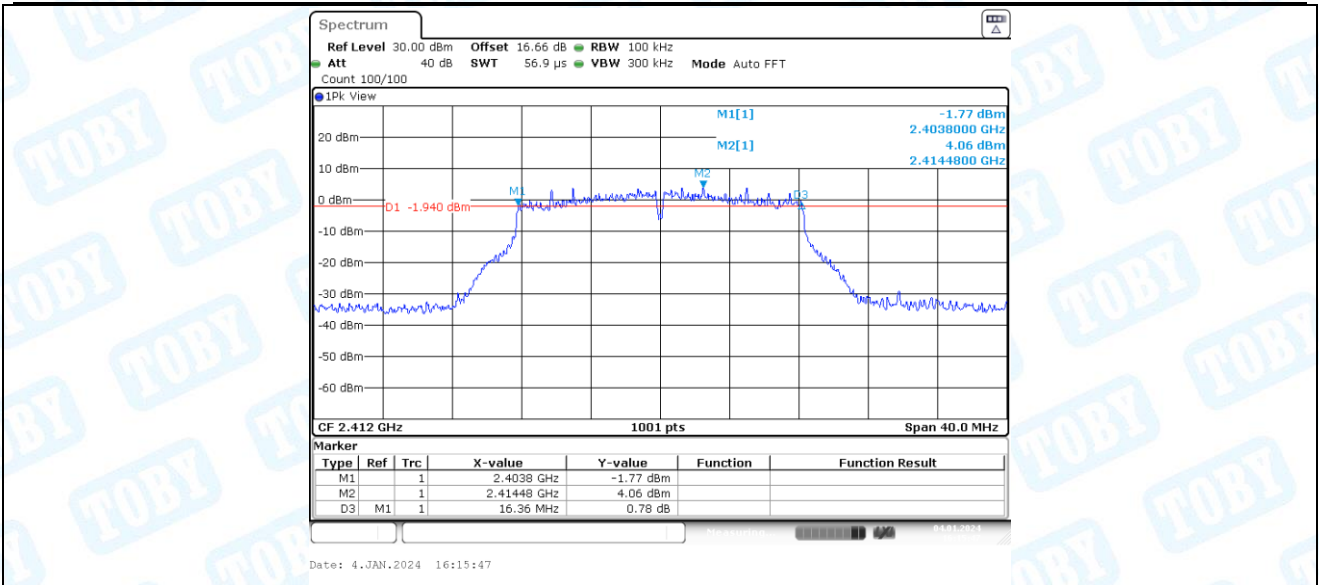
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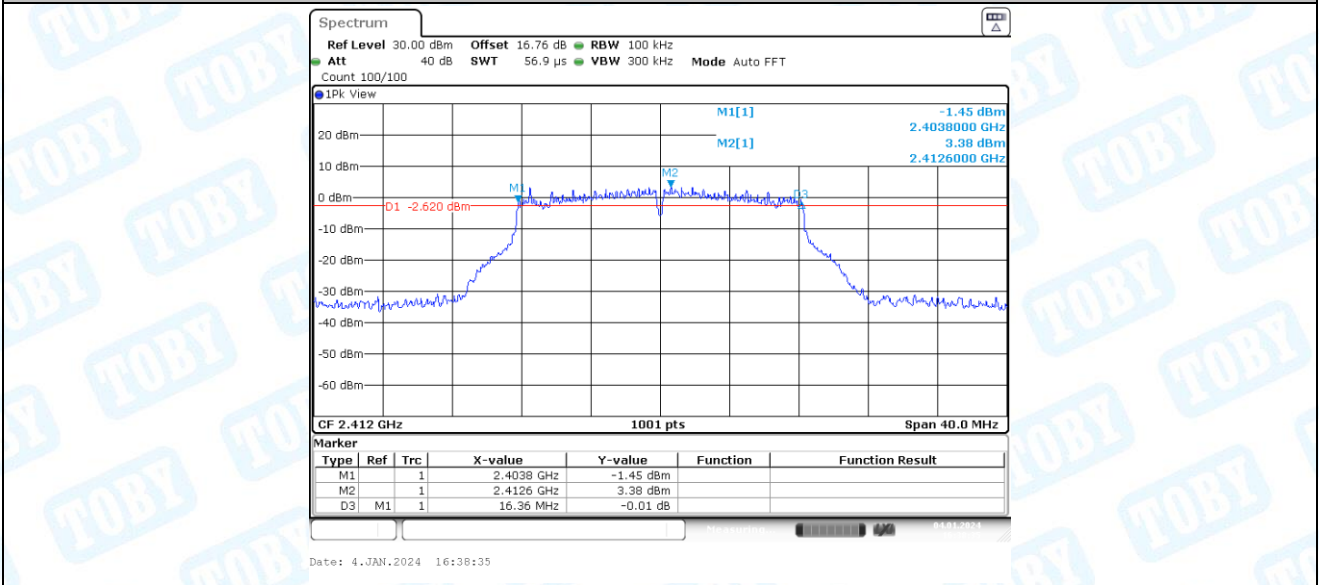
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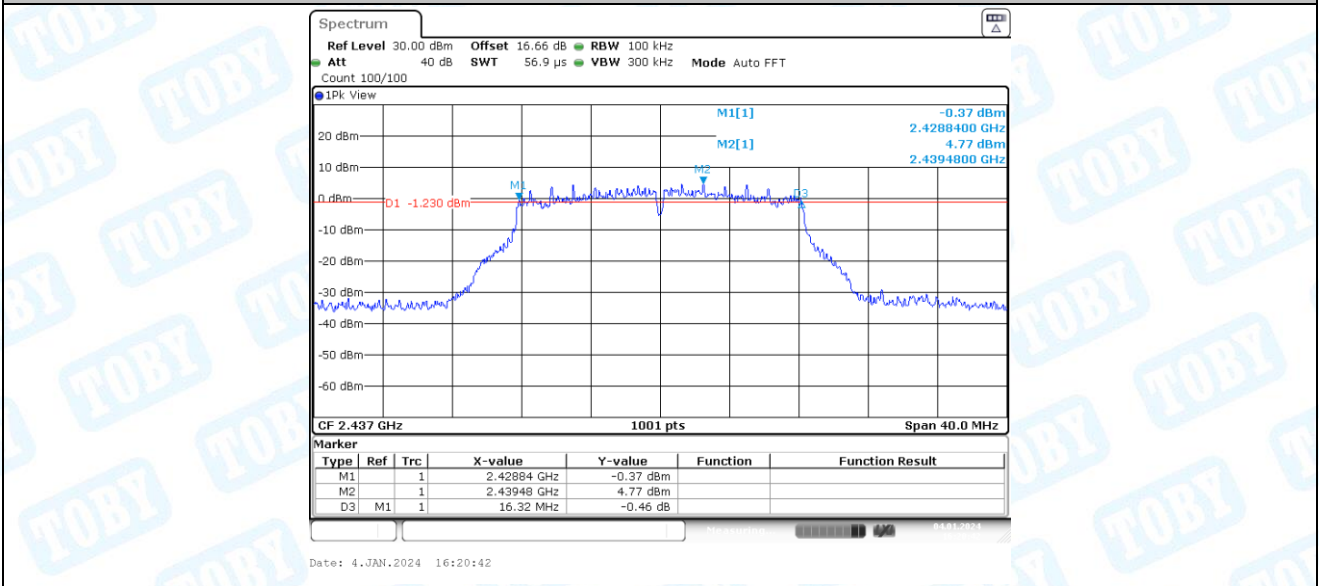
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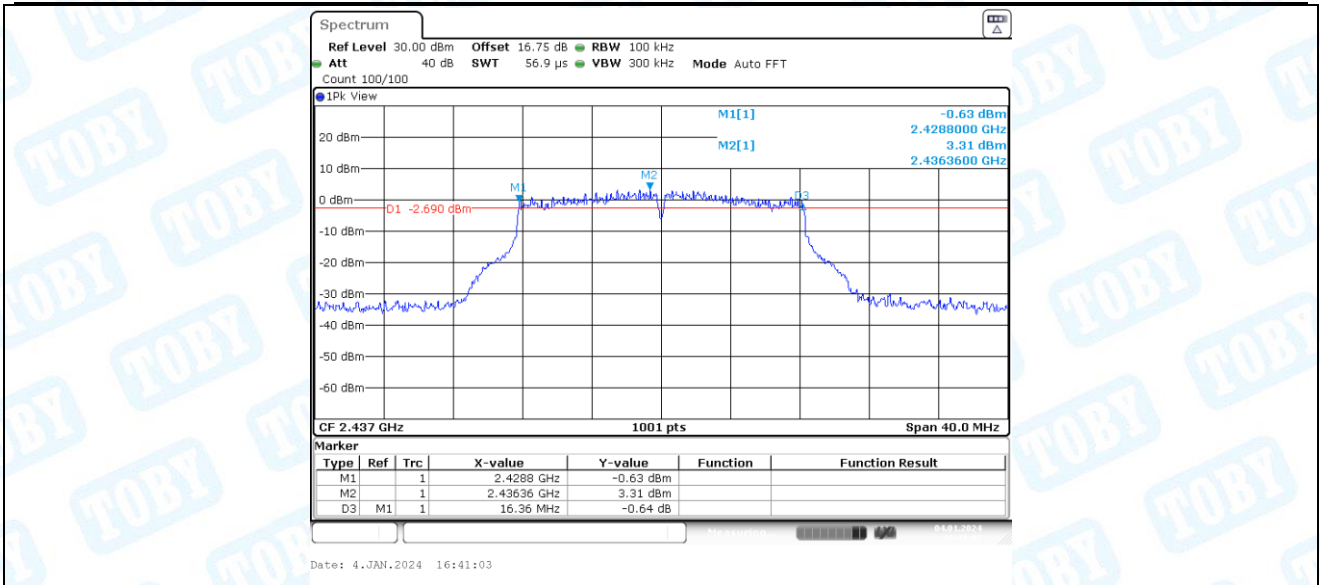
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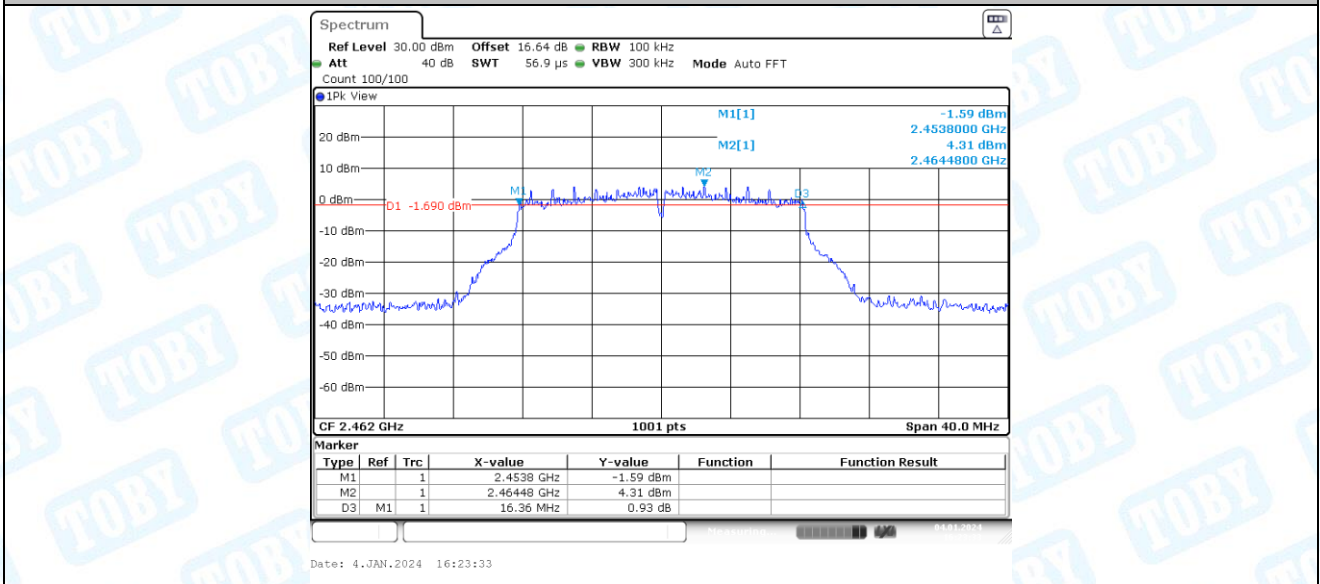
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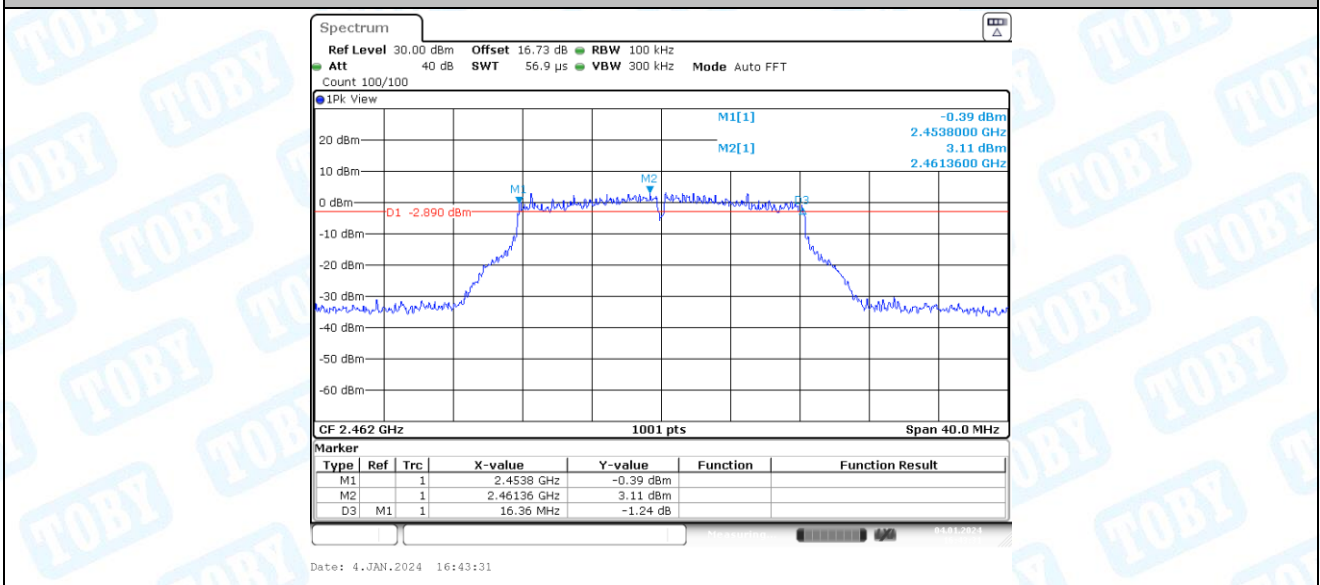
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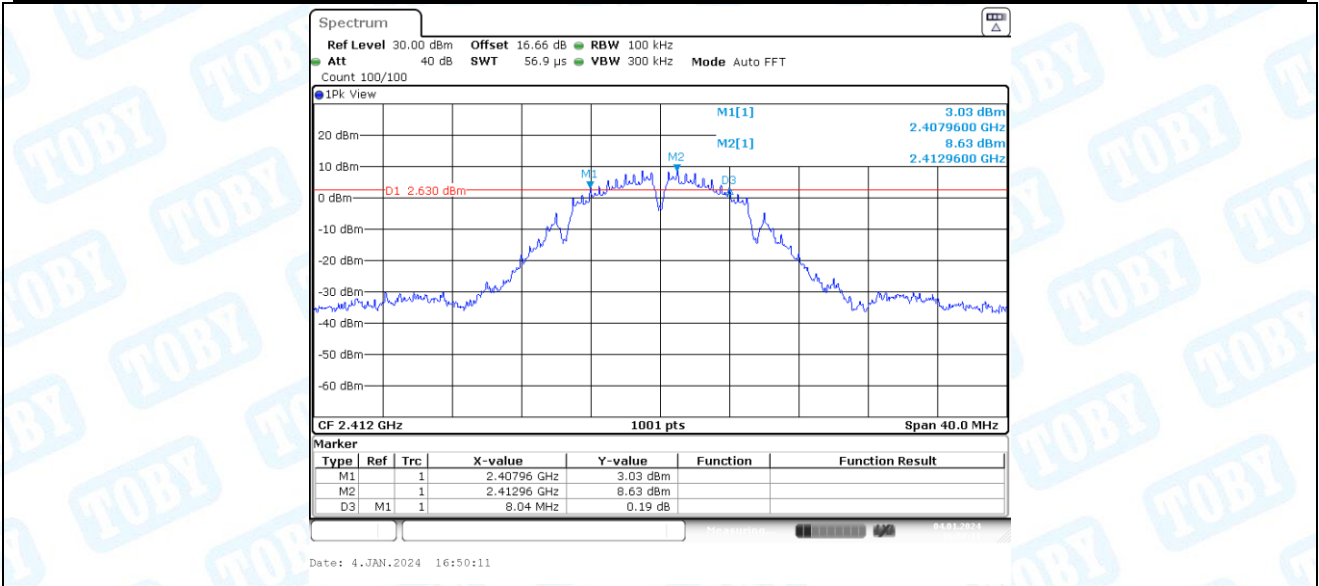
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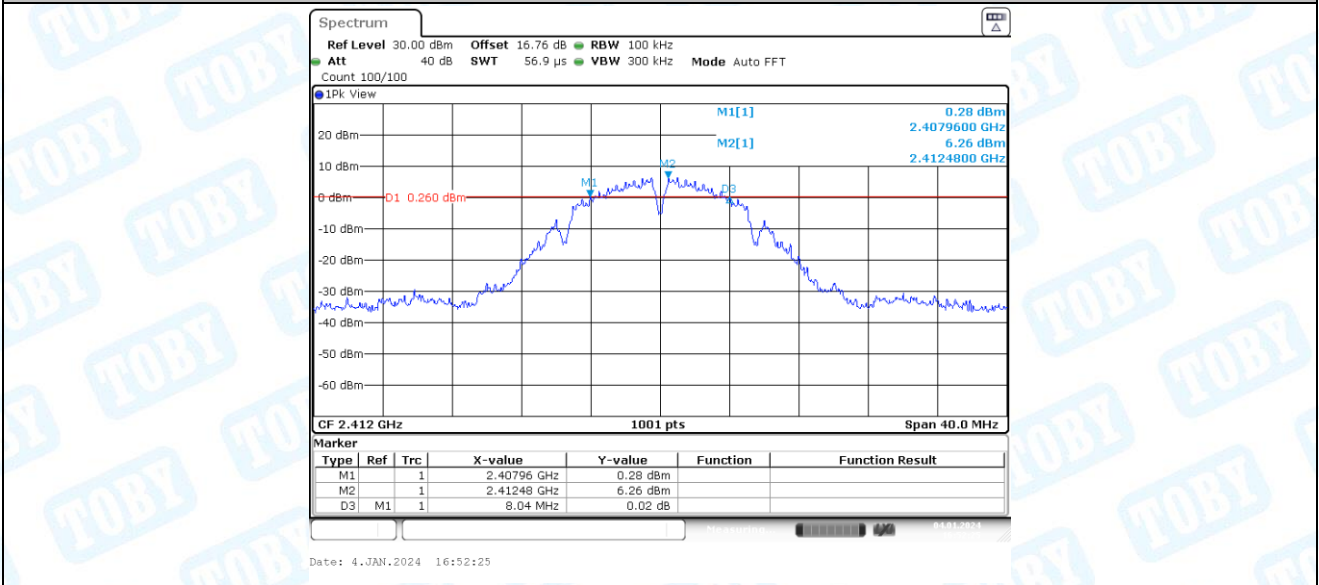
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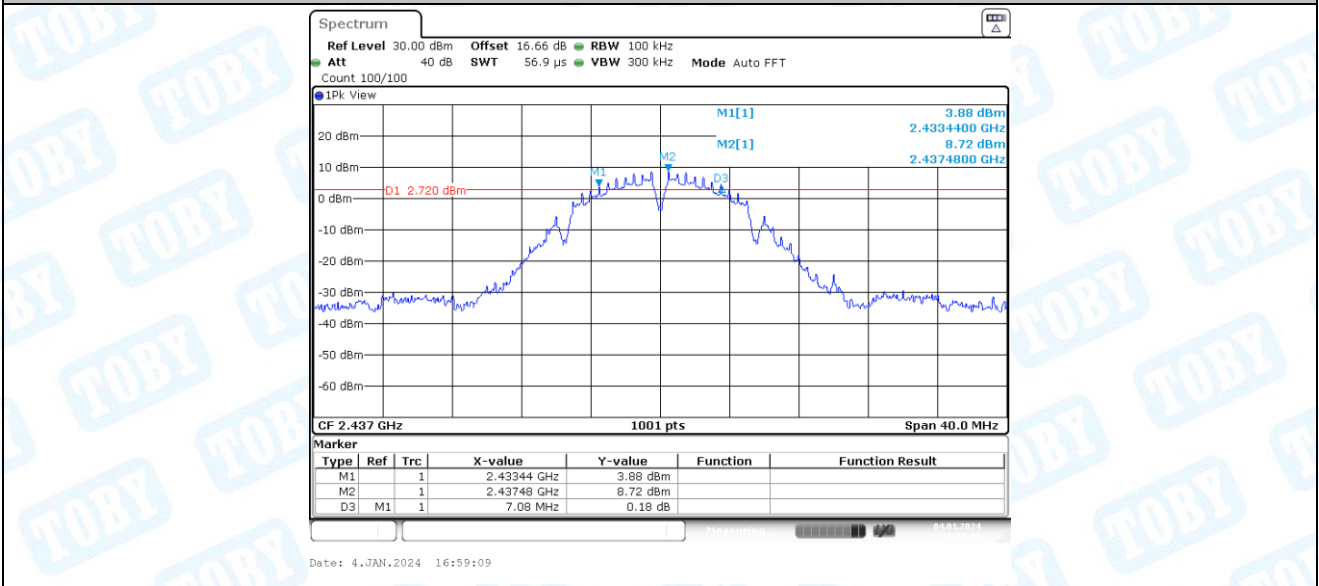
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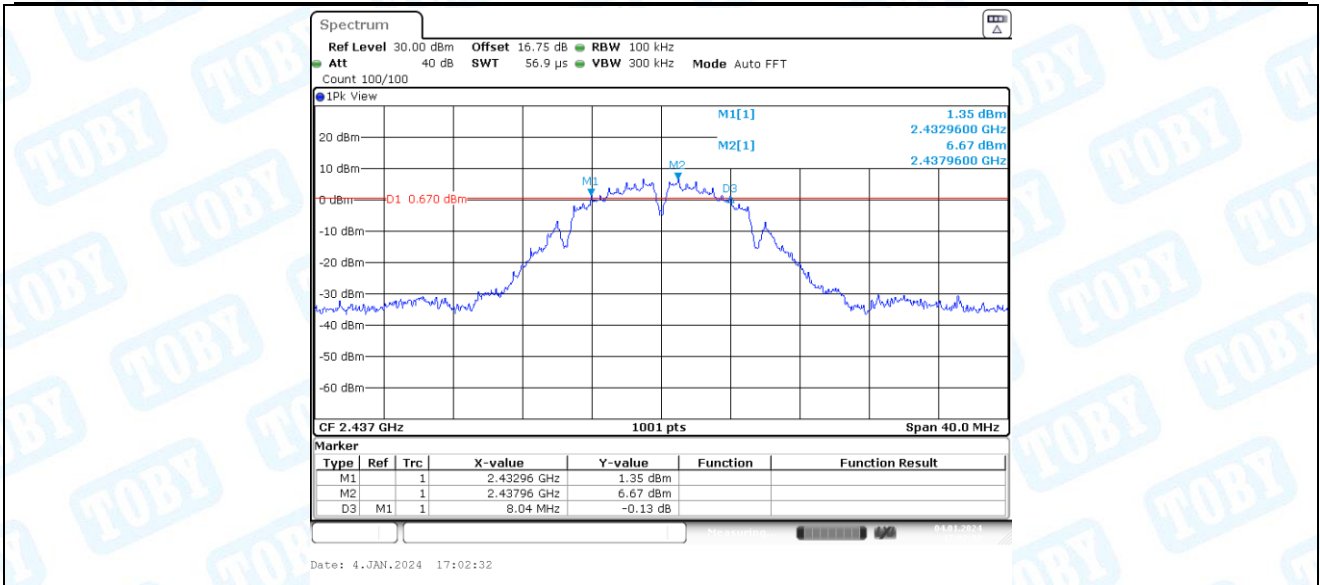
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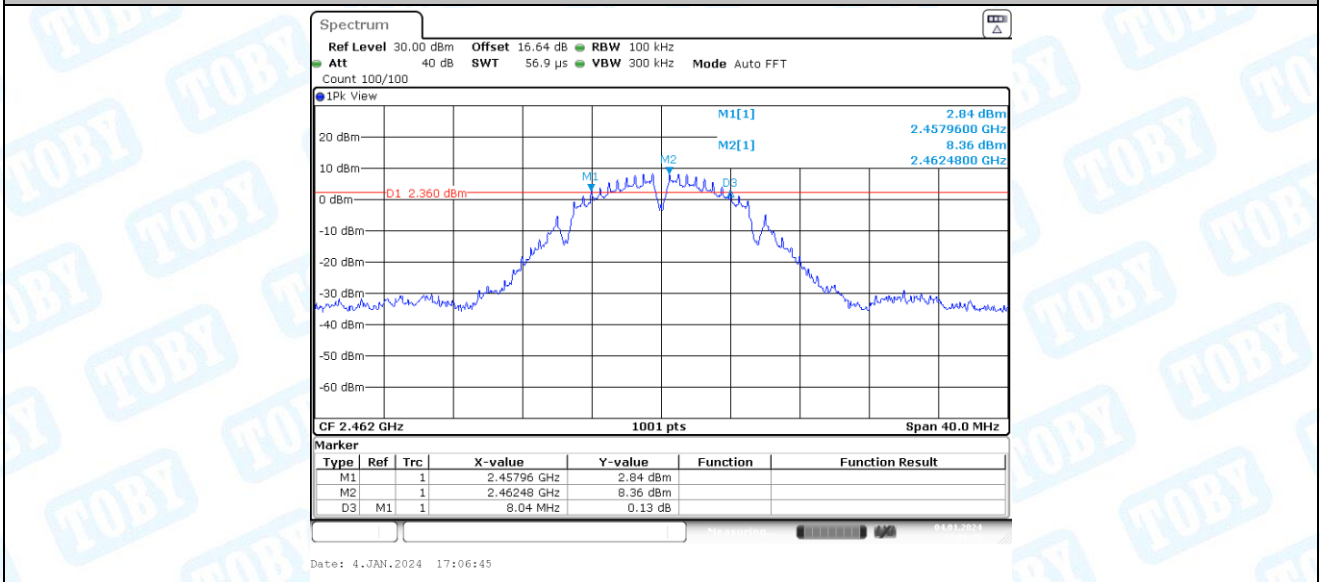
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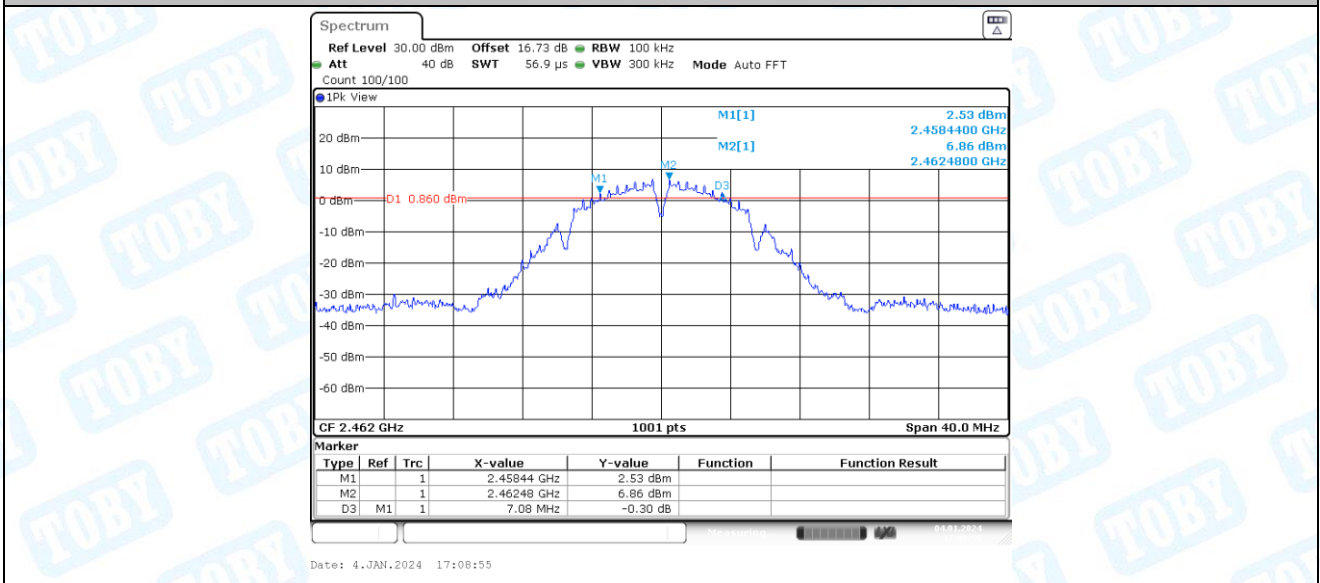
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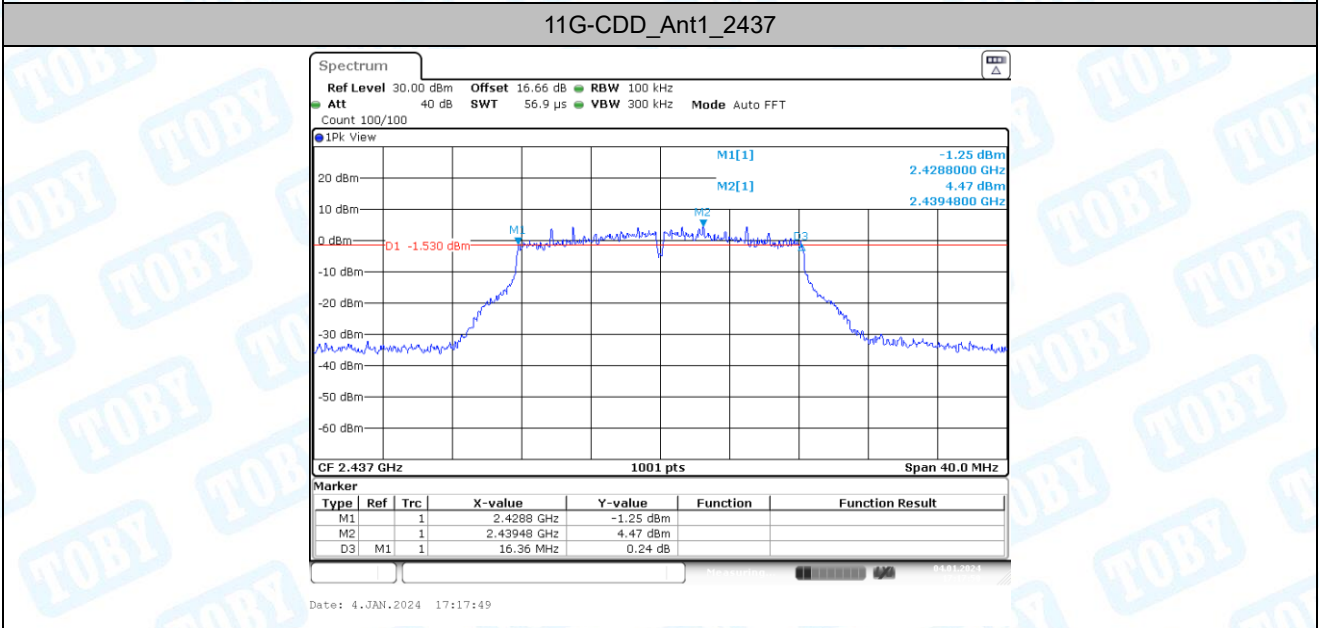
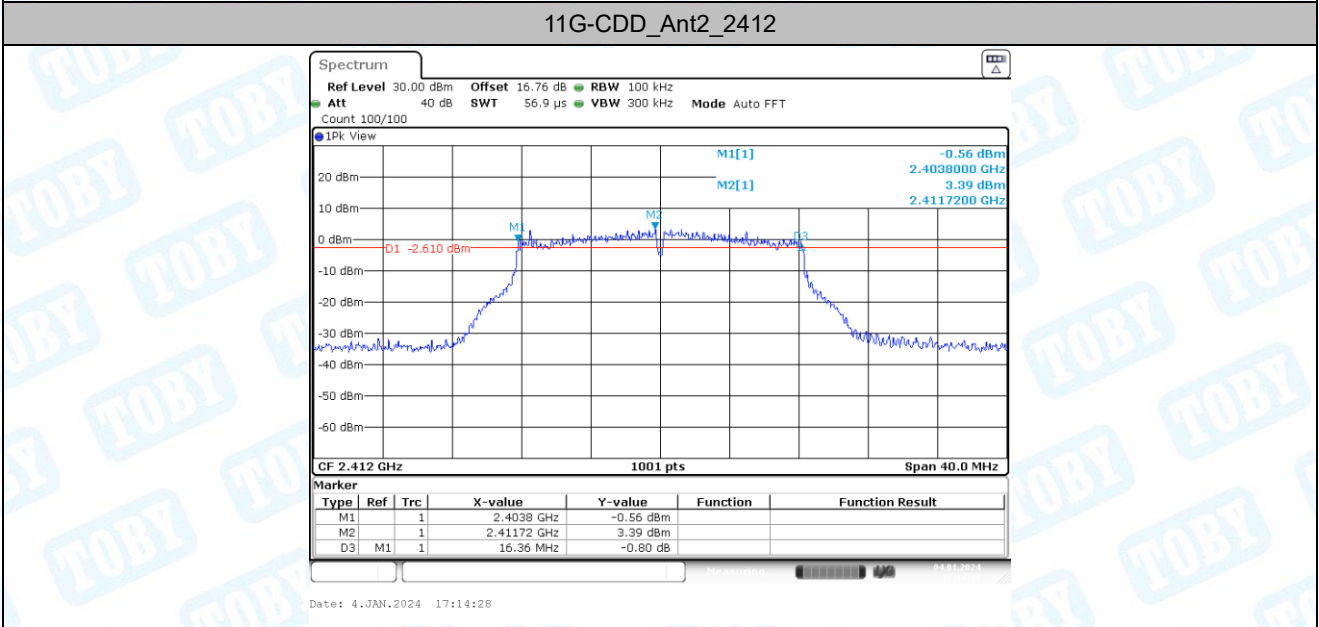
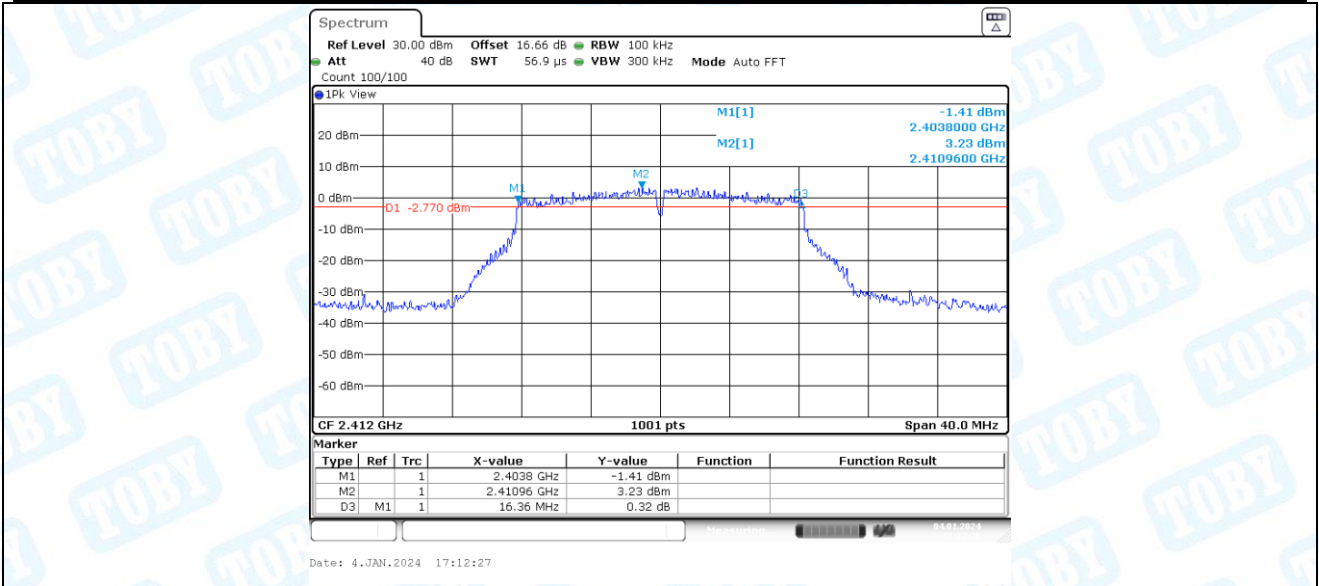
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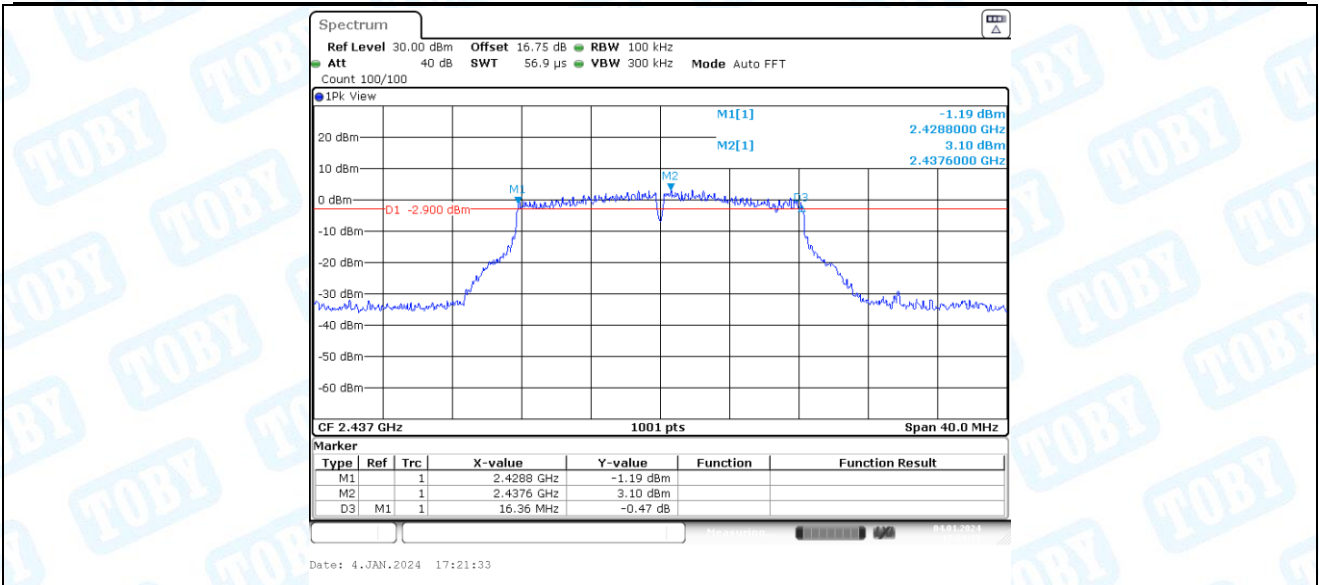


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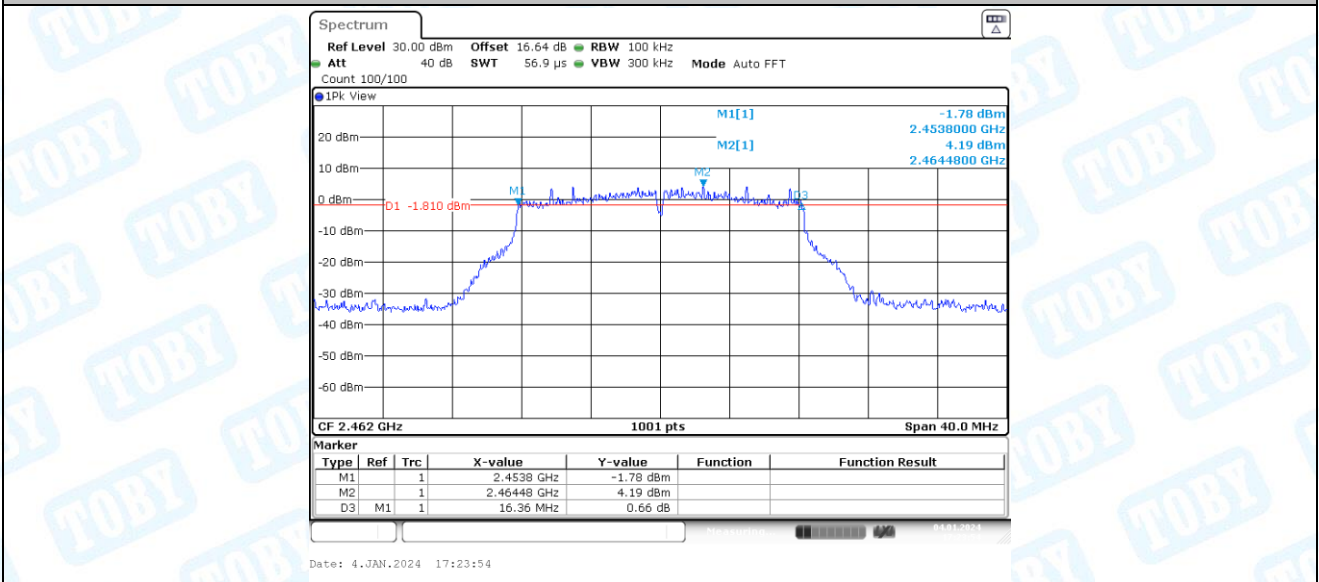


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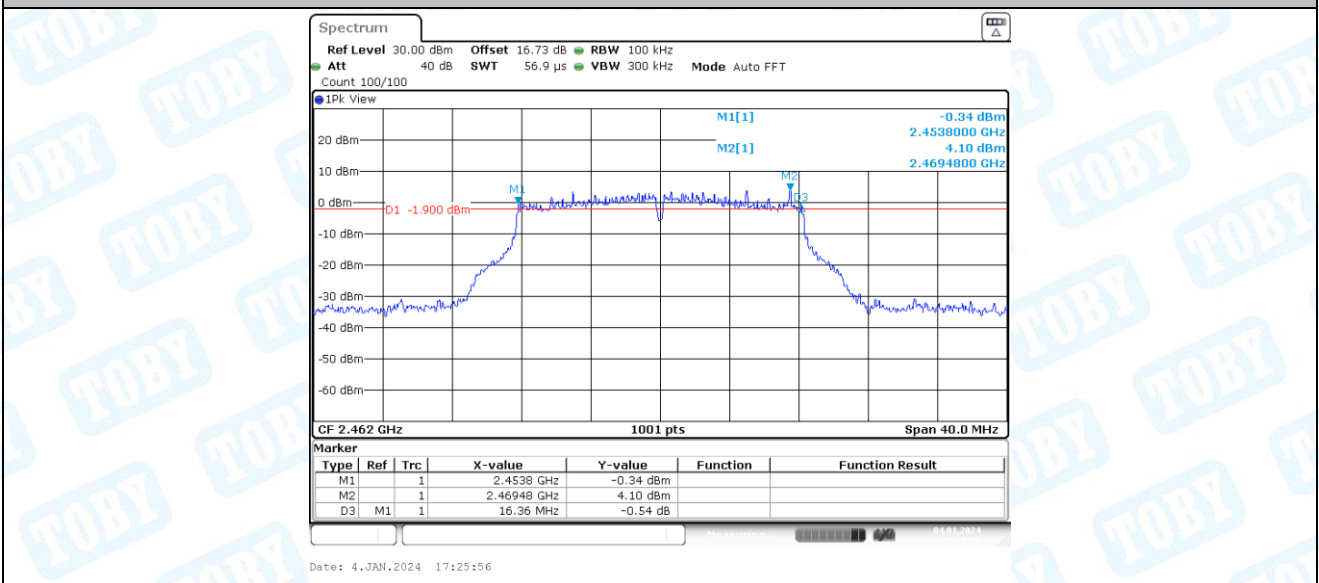




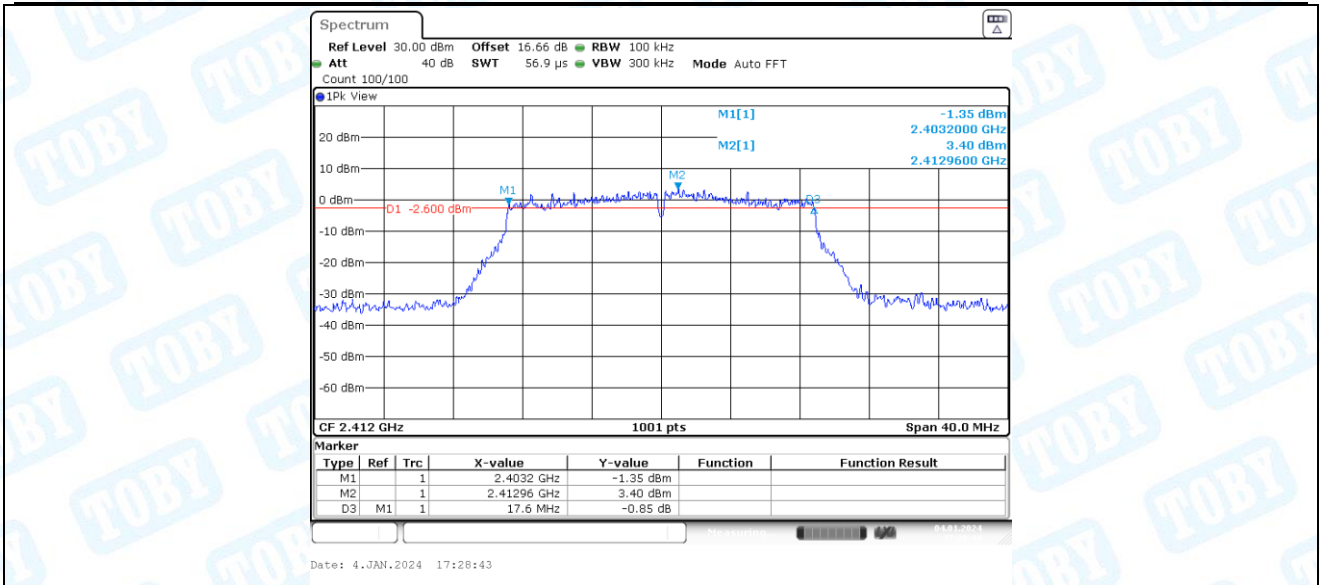
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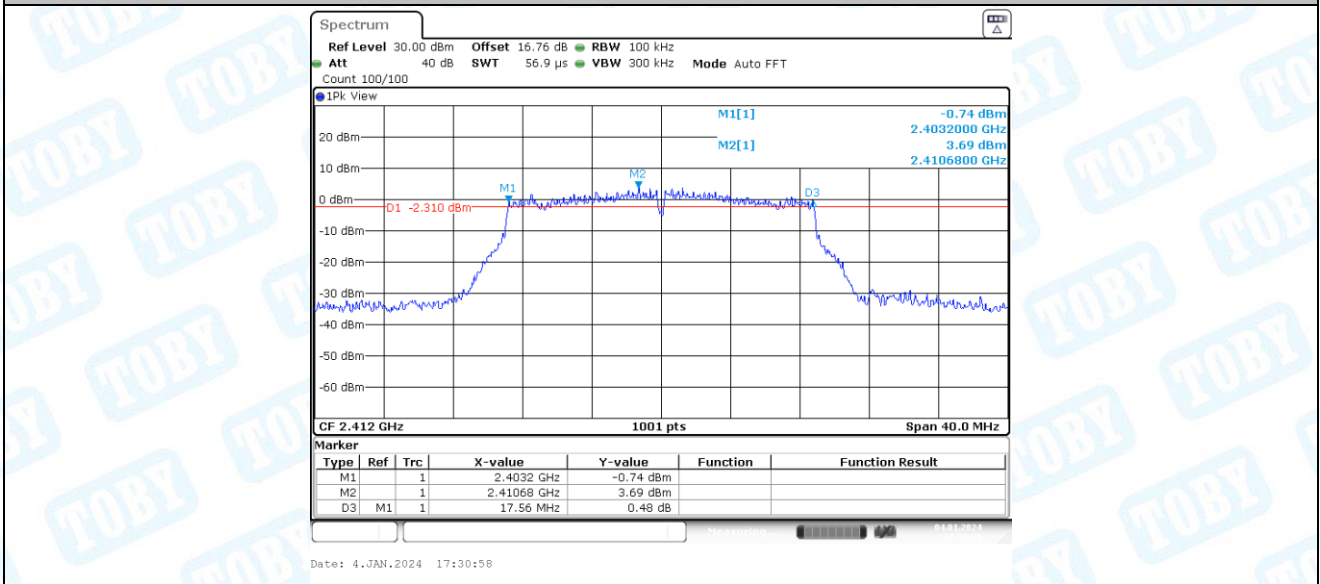
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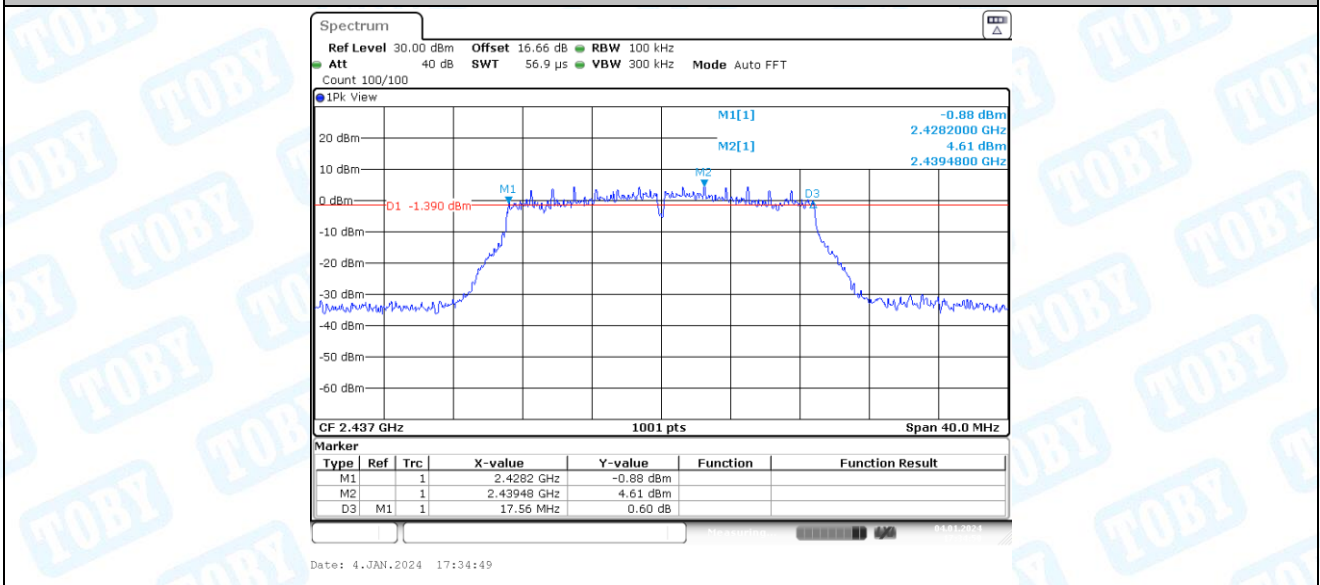
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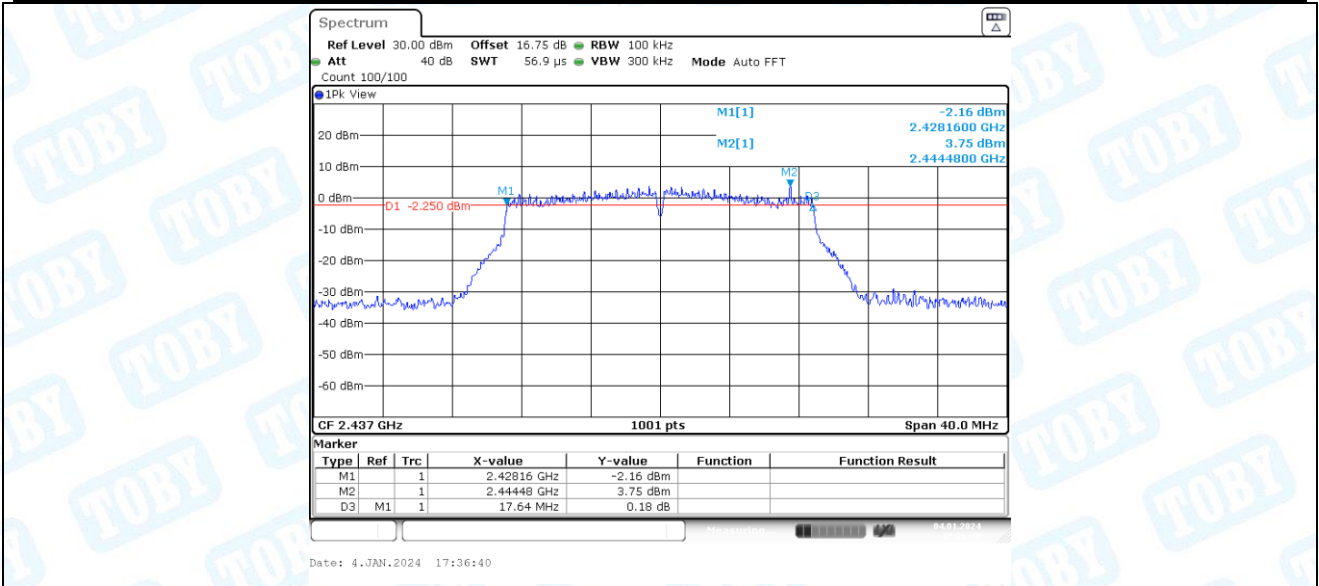
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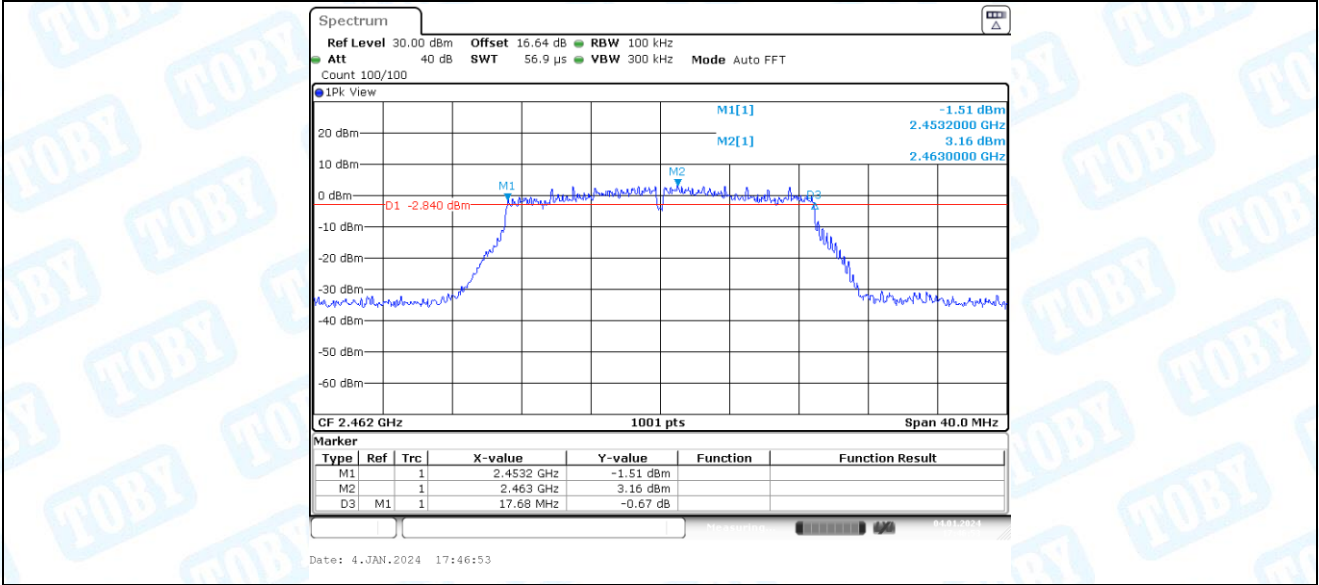
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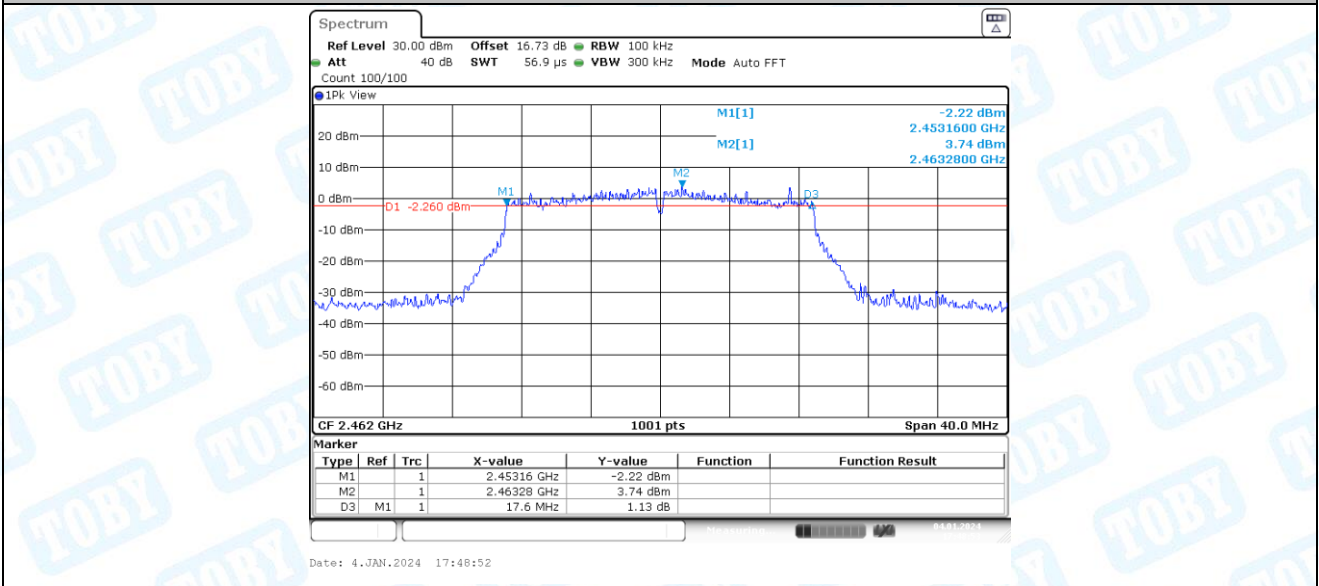
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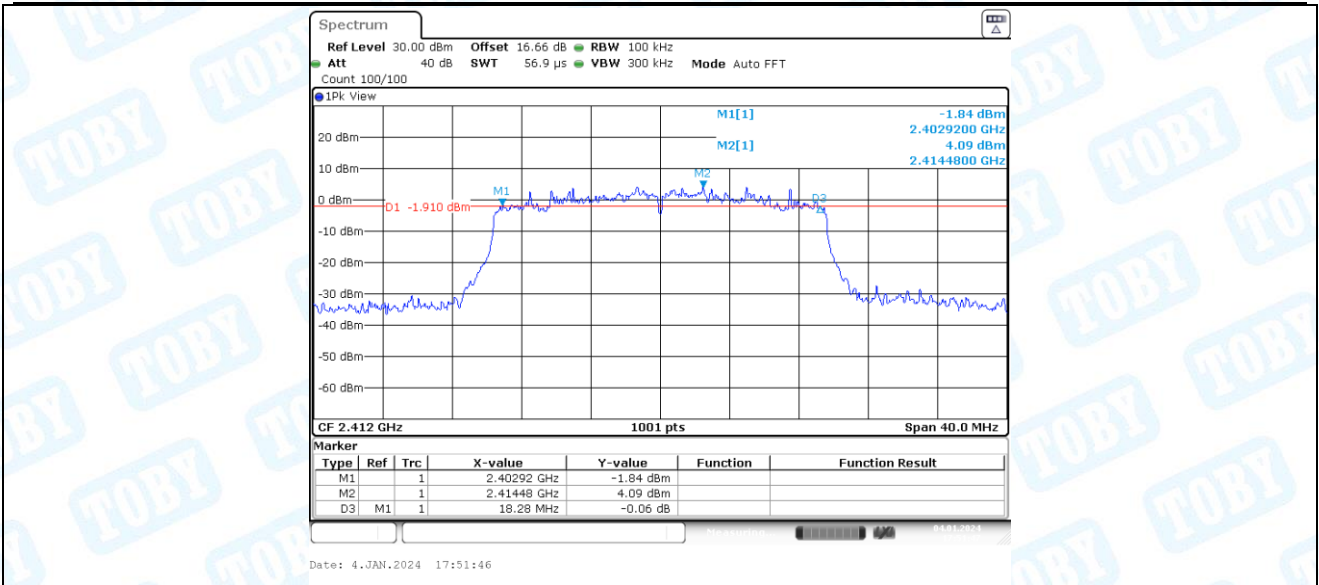
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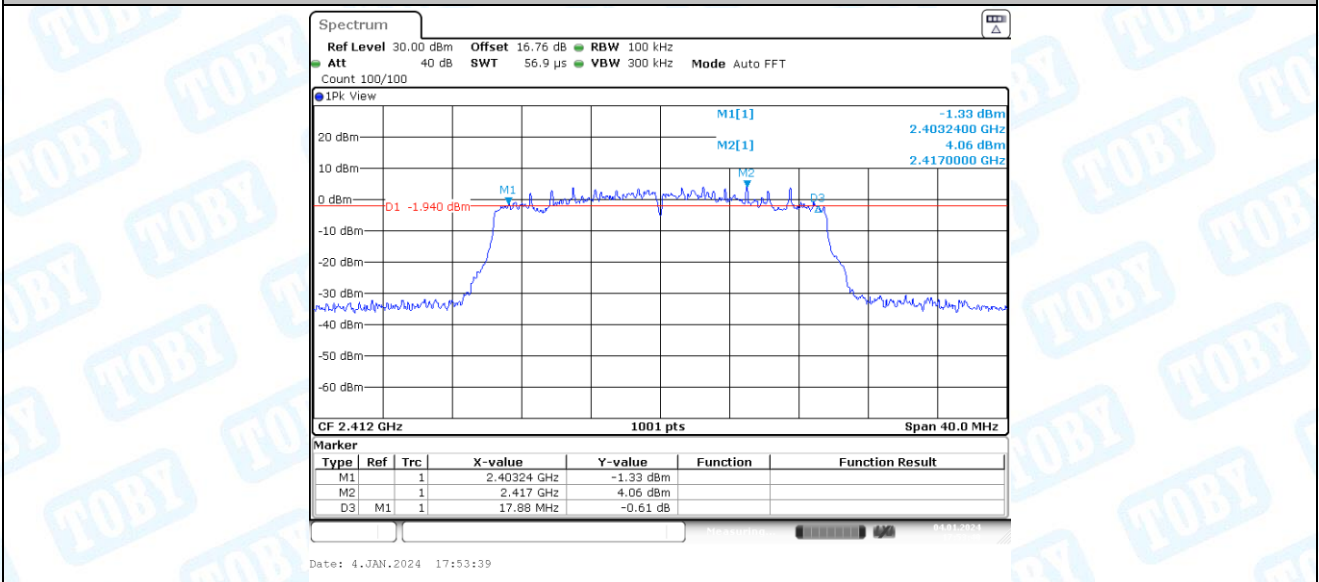
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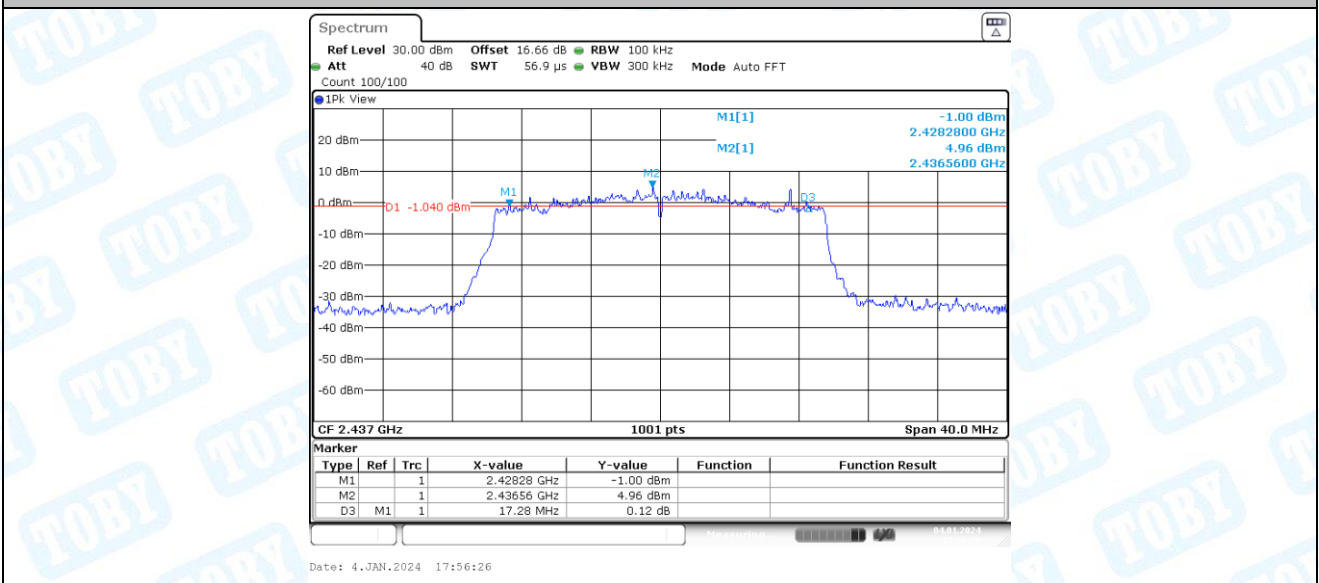
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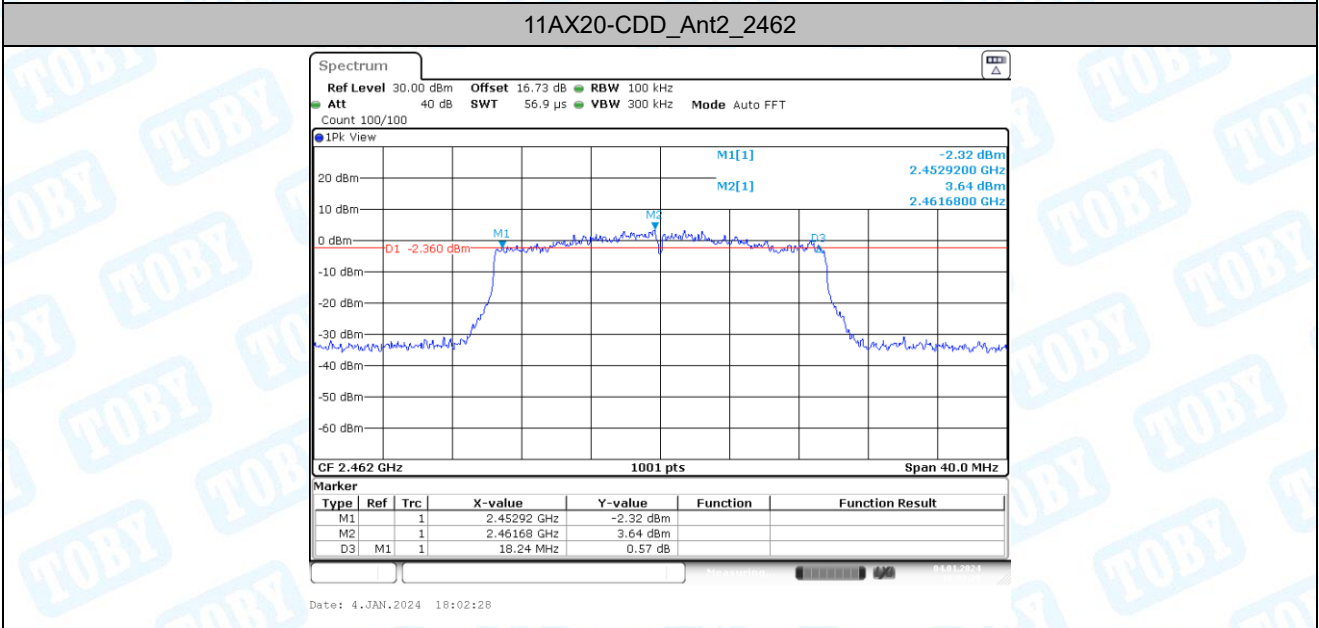
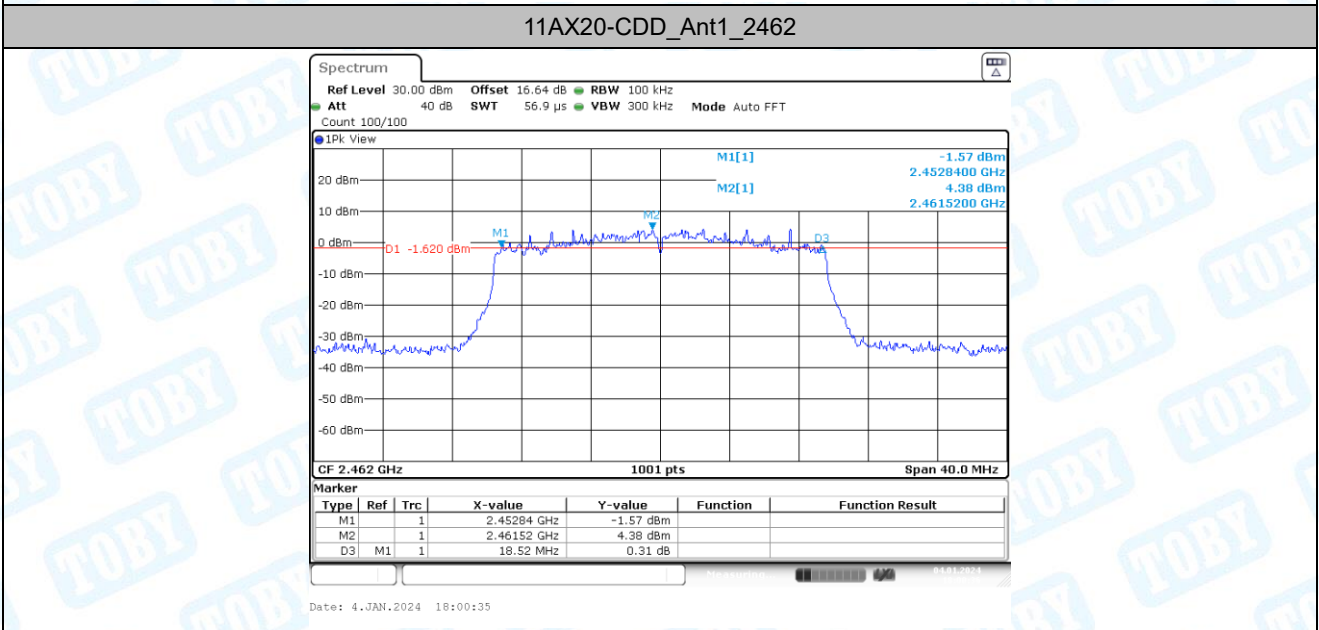
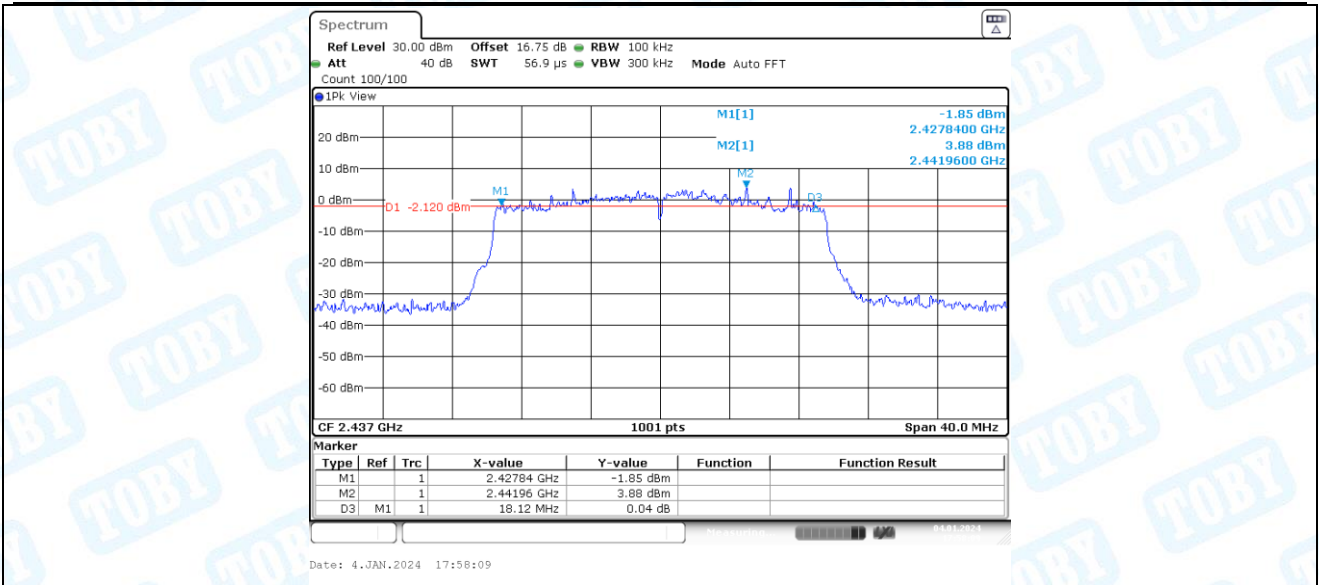
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11AX20-CDD_Ant1_2437



11AX20-CDD_Ant2_2437

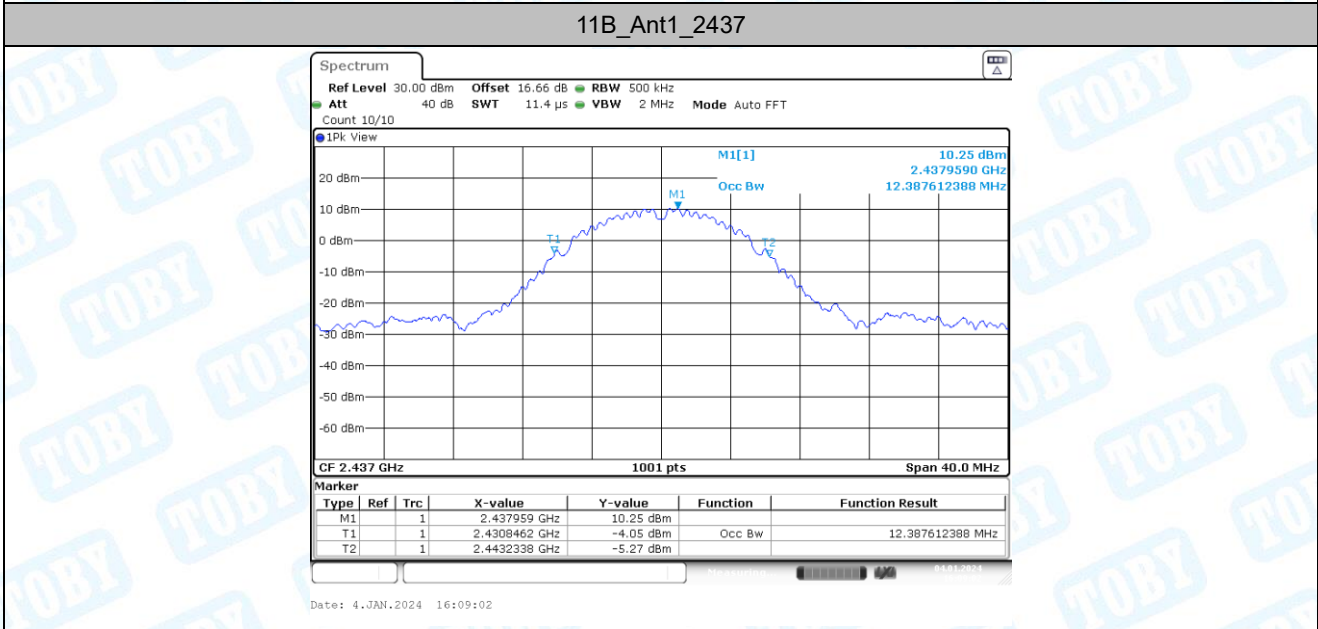
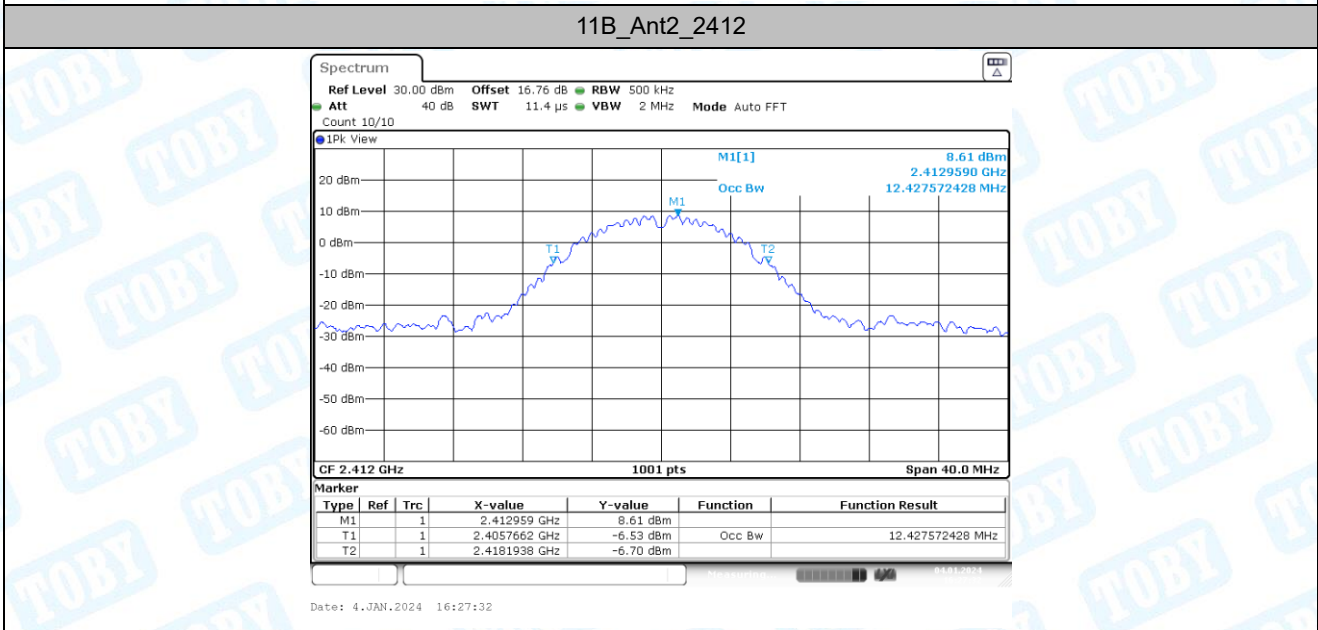
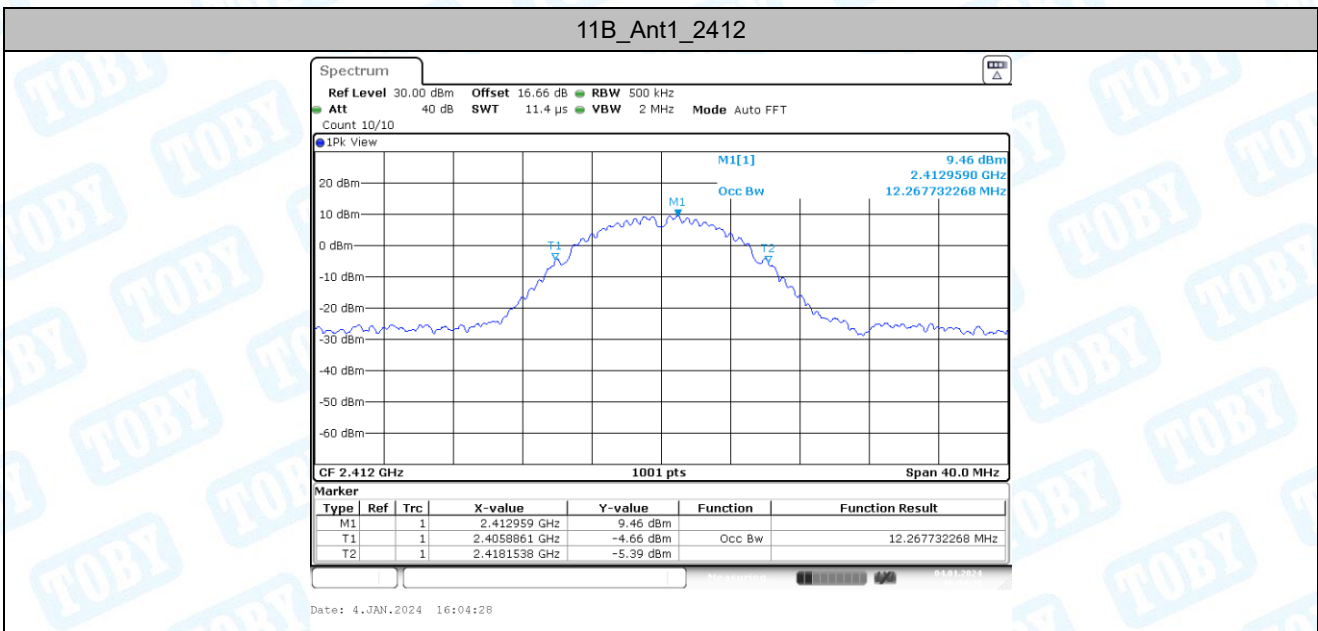


2. Occupied Channel Bandwidth

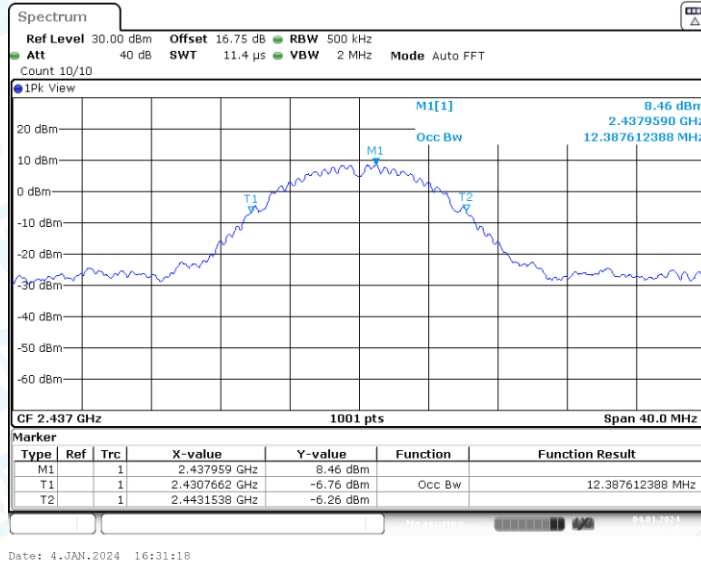
2.1. Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.268	2405.8861	2418.1538	---	---
	Ant2	2412	12.428	2405.7662	2418.1938	---	---
	Ant1	2437	12.388	2430.8462	2443.2338	---	---
	Ant2	2437	12.388	2430.7662	2443.1538	---	---
	Ant1	2462	12.268	2455.8861	2468.1538	---	---
	Ant2	2462	12.388	2455.7662	2468.1538	---	---
11G	Ant1	2412	17.542	2403.4486	2420.9910	---	---
	Ant2	2412	17.343	2403.3686	2420.7113	---	---
	Ant1	2437	17.263	2428.2887	2445.5514	---	---
	Ant2	2437	17.063	2428.4885	2445.5514	---	---
	Ant1	2462	17.383	2453.3287	2470.7113	---	---
	Ant2	2462	17.183	2453.3686	2470.5514	---	---
11B-CDD	Ant1	2412	12.348	2405.8462	2418.1938	---	---
	Ant2	2412	12.388	2405.8062	2418.1938	---	---
	Ant1	2437	12.308	2430.8861	2443.1938	---	---
	Ant2	2437	12.388	2430.8062	2443.1938	---	---
	Ant1	2462	12.268	2455.8861	2468.1538	---	---
	Ant2	2462	12.348	2455.8062	2468.1538	---	---
11G-CDD	Ant1	2412	17.303	2403.3686	2420.6713	---	---
	Ant2	2412	17.183	2403.2887	2420.4715	---	---
	Ant1	2437	17.502	2428.2887	2445.7912	---	---
	Ant2	2437	17.223	2428.3686	2445.5914	---	---
	Ant1	2462	17.103	2453.4086	2470.5115	---	---
	Ant2	2462	17.143	2453.3686	2470.5115	---	---
11N20-CDD	Ant1	2412	18.462	2402.8092	2421.2707	---	---
	Ant2	2412	18.382	2402.7692	2421.1508	---	---
	Ant1	2437	18.501	2427.8891	2446.3906	---	---
	Ant2	2437	18.182	2427.9690	2446.1508	---	---
	Ant1	2462	18.182	2452.9291	2471.1109	---	---
	Ant2	2462	18.022	2452.9291	2470.9510	---	---
11AX20-CDD	Ant1	2412	18.981	2402.5295	2421.5105	---	---
	Ant2	2412	18.981	2402.5694	2421.5504	---	---
	Ant1	2437	18.941	2427.4895	2446.4306	---	---
	Ant2	2437	18.941	2427.4895	2446.4306	---	---
	Ant1	2462	18.981	2452.5295	2471.5105	---	---
	Ant2	2462	18.981	2452.4895	2471.4705	---	---

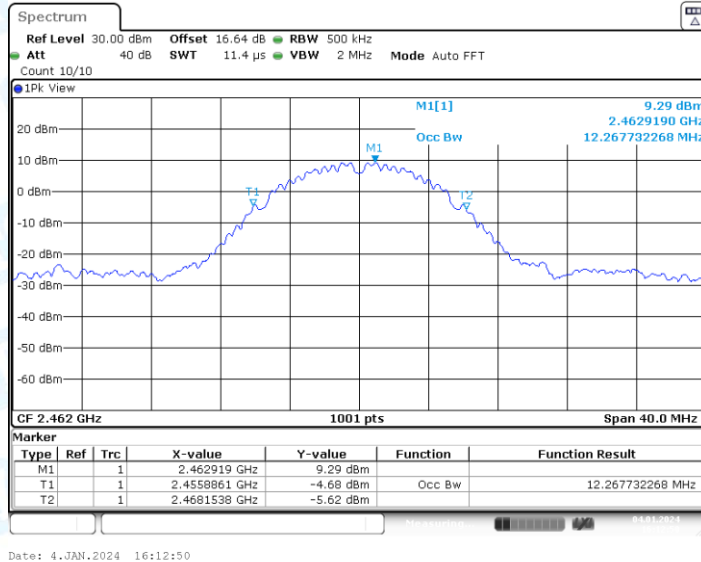
2.2. Test Graphs



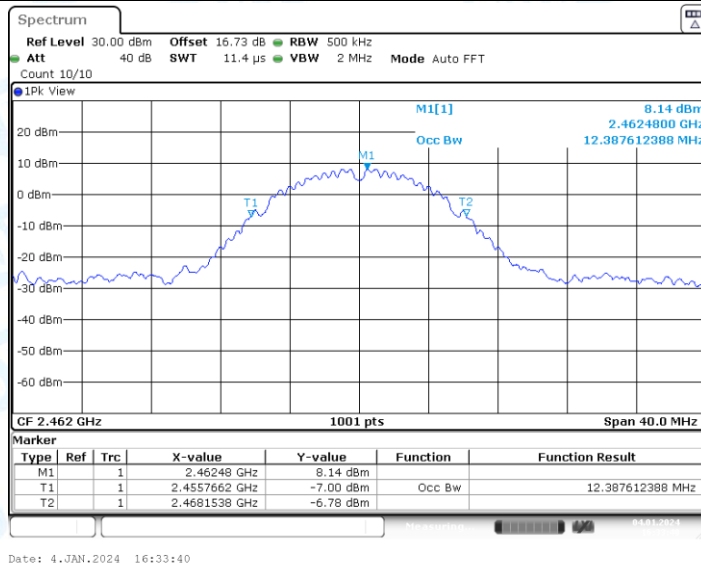
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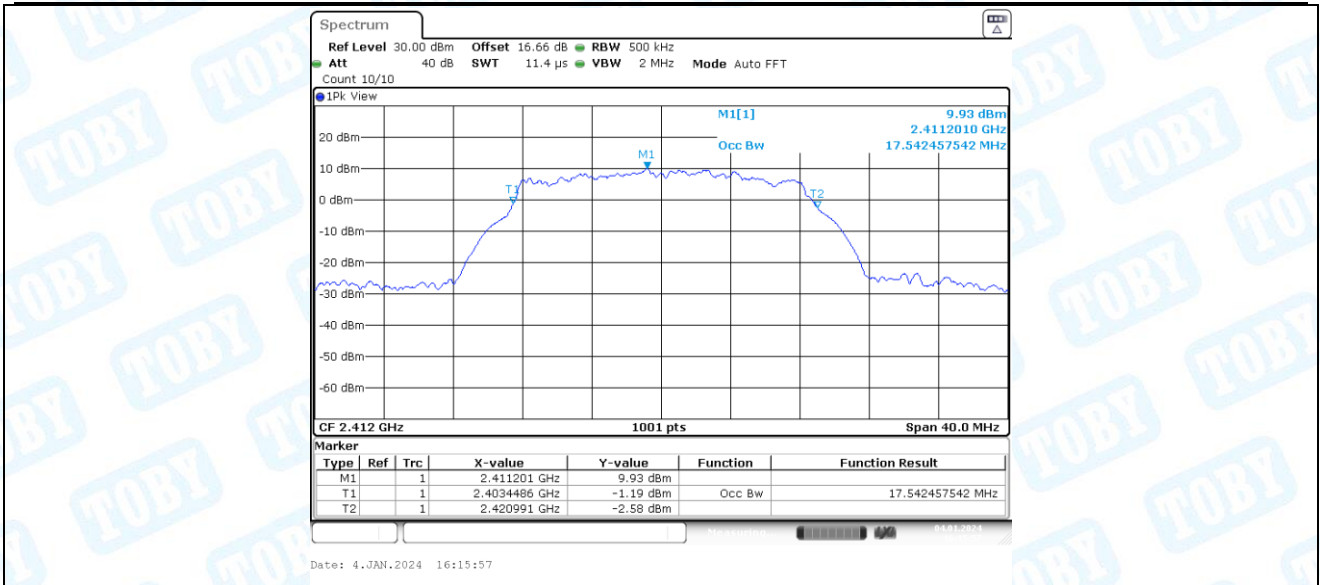
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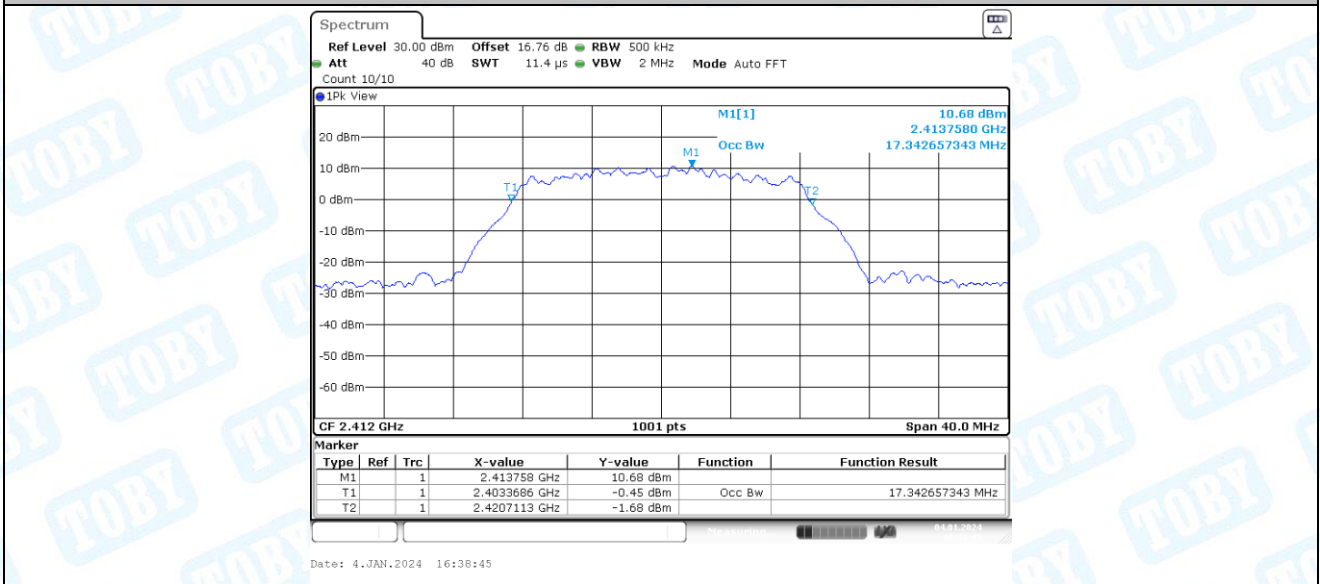
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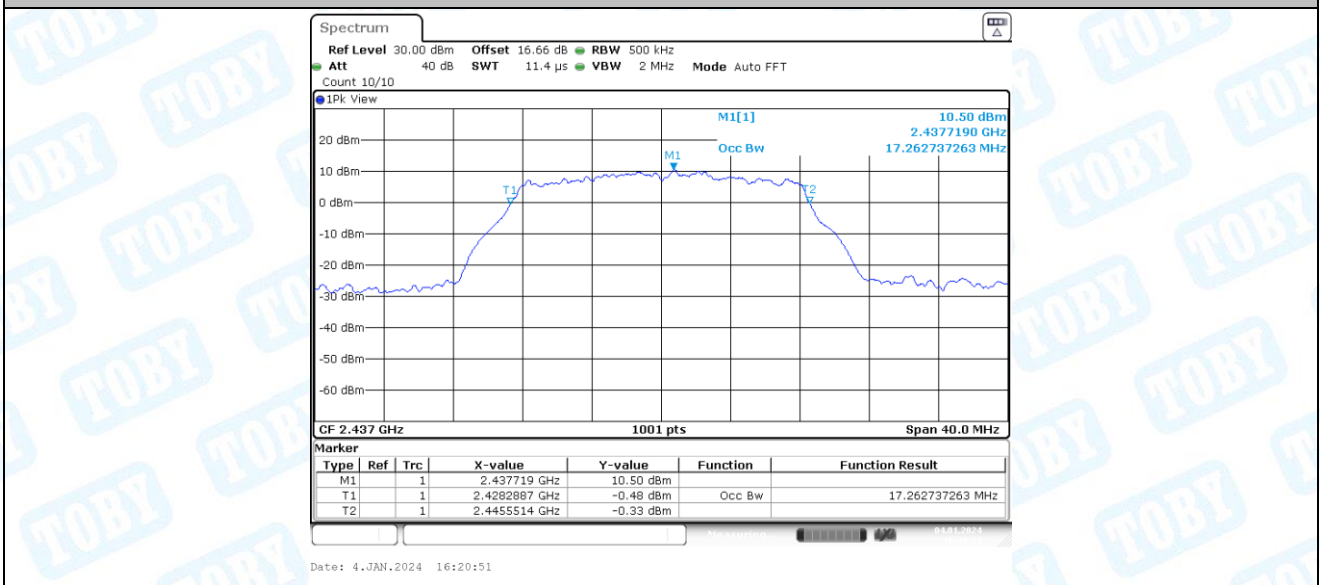
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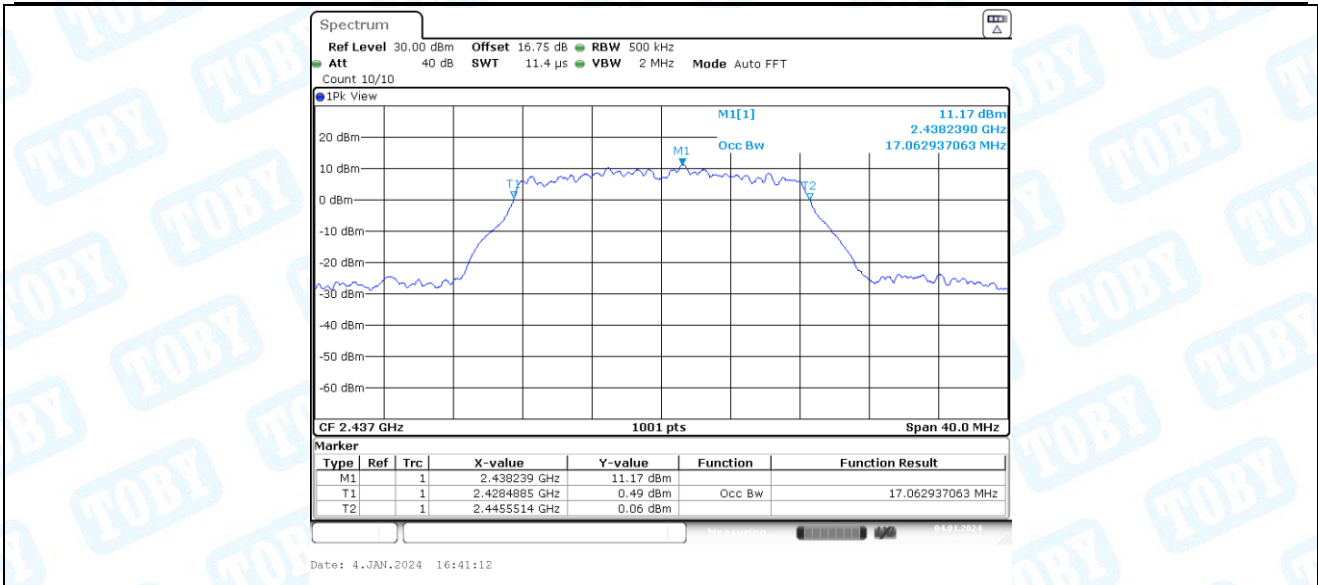
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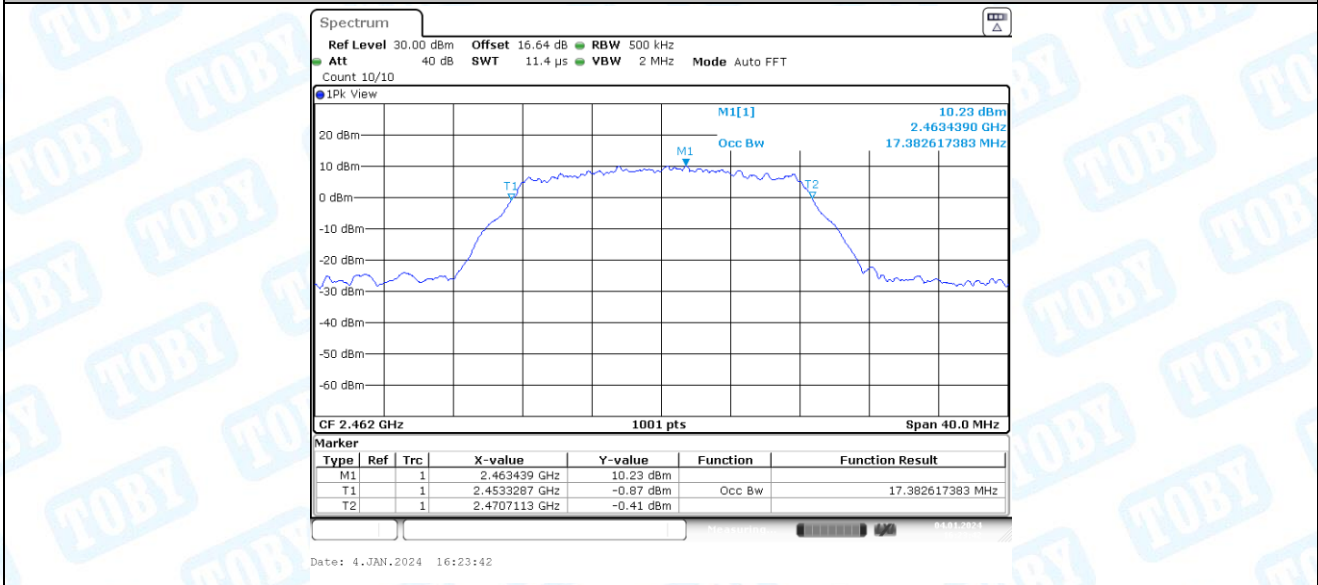
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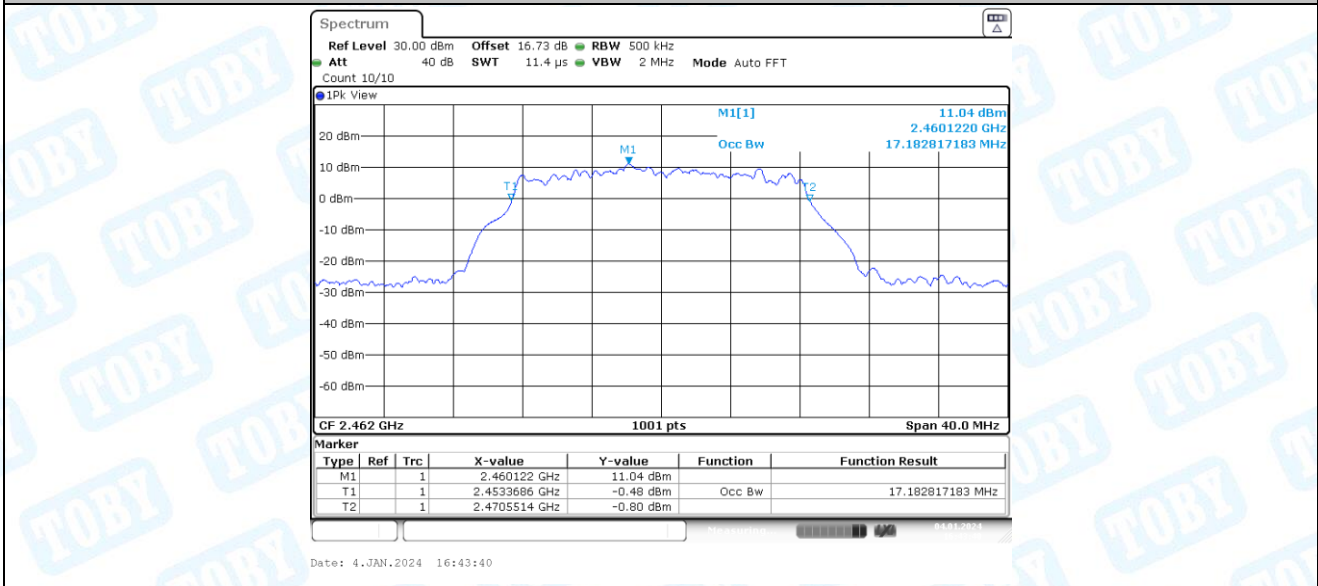
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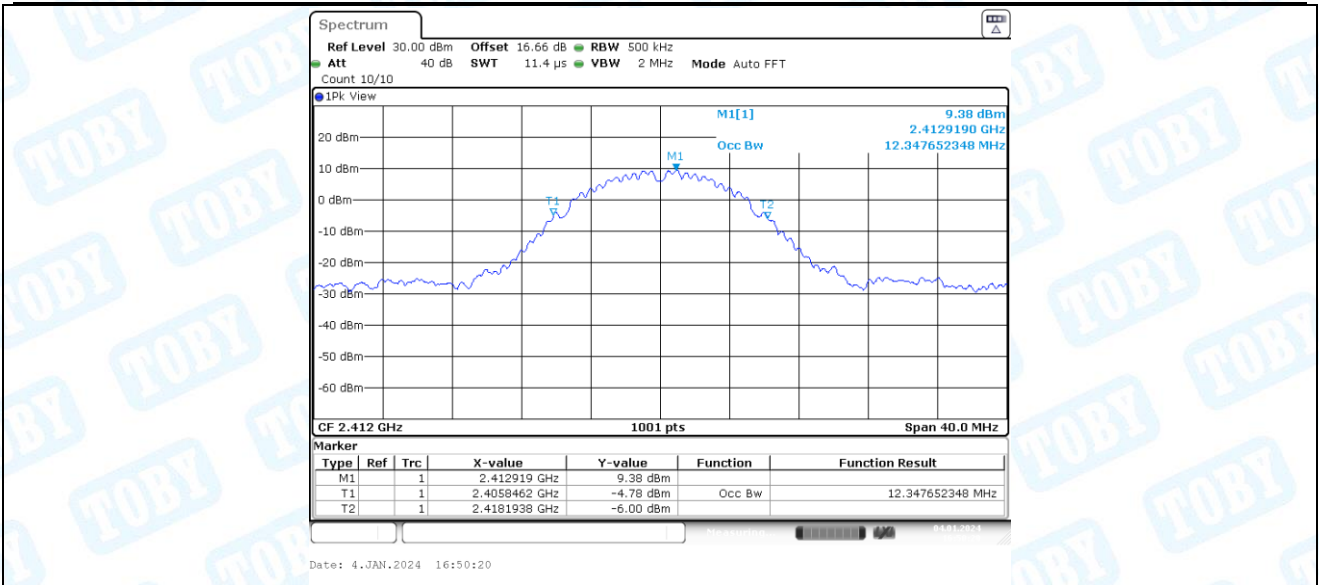
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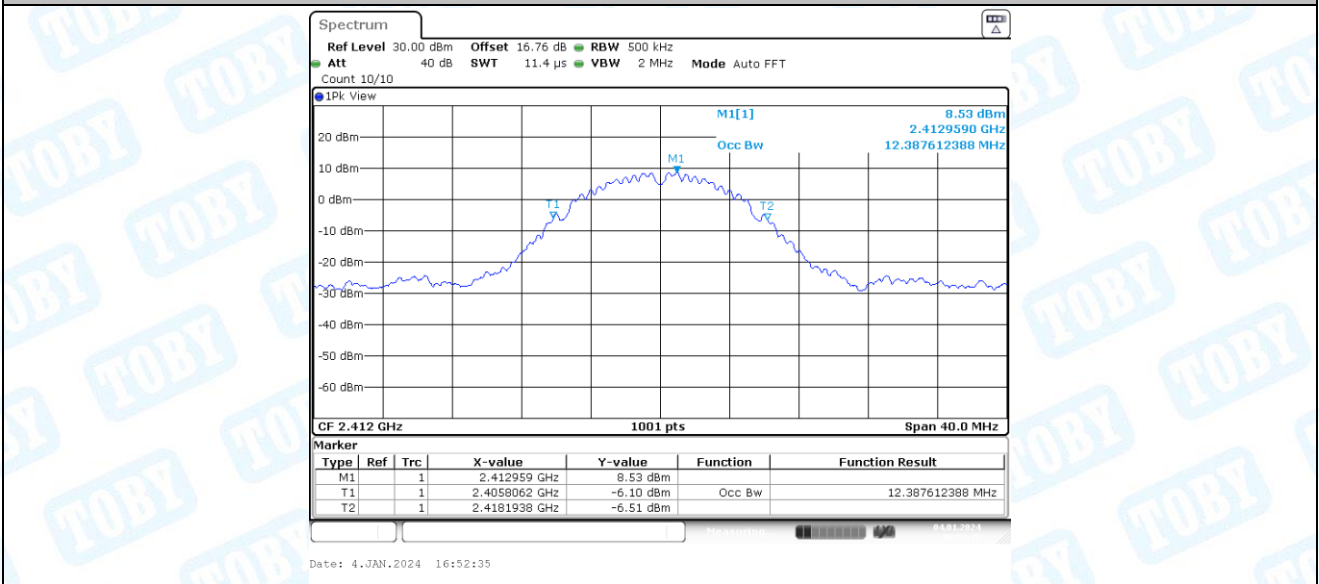
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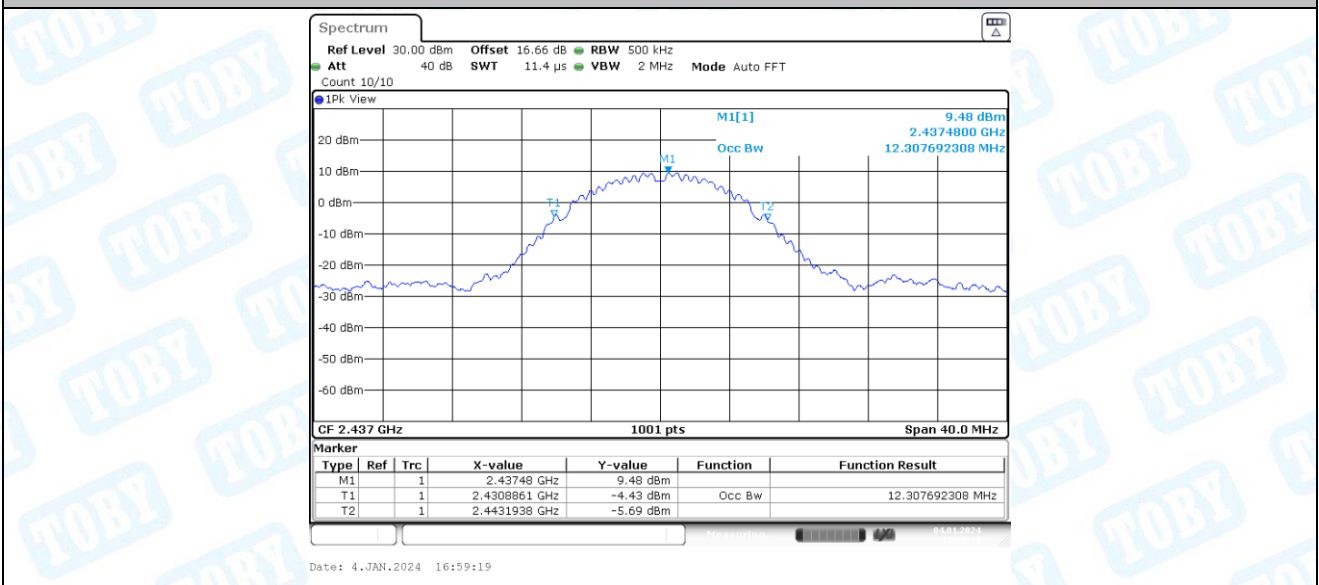
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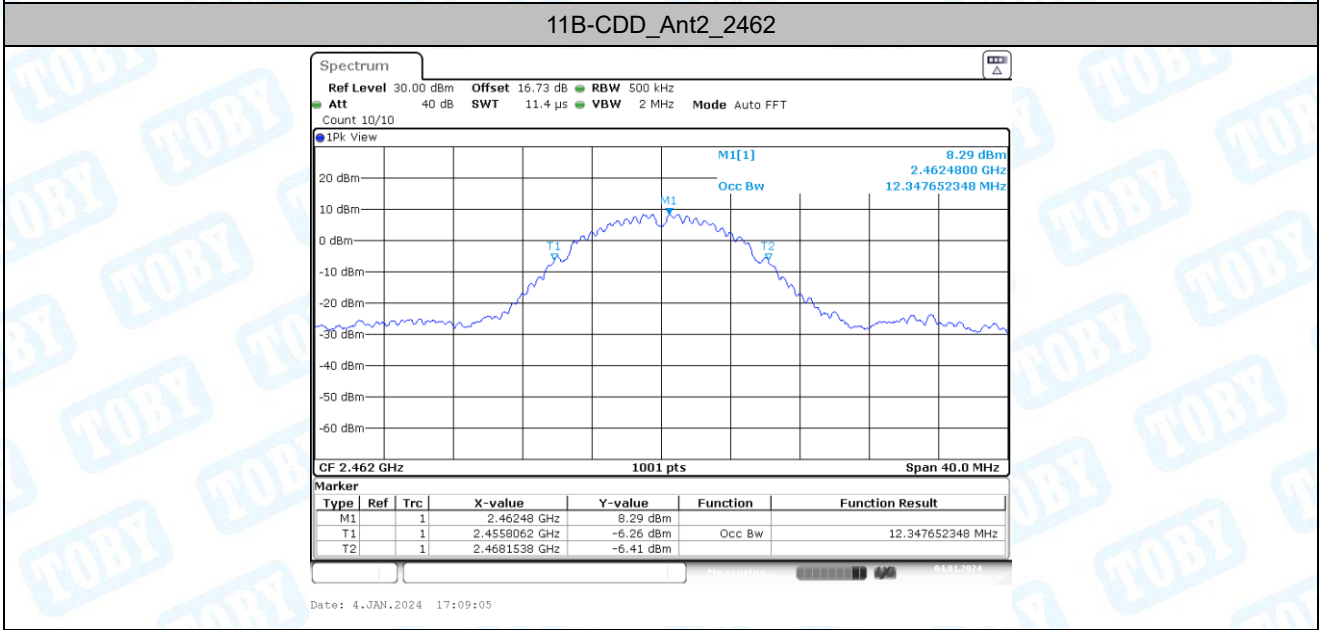
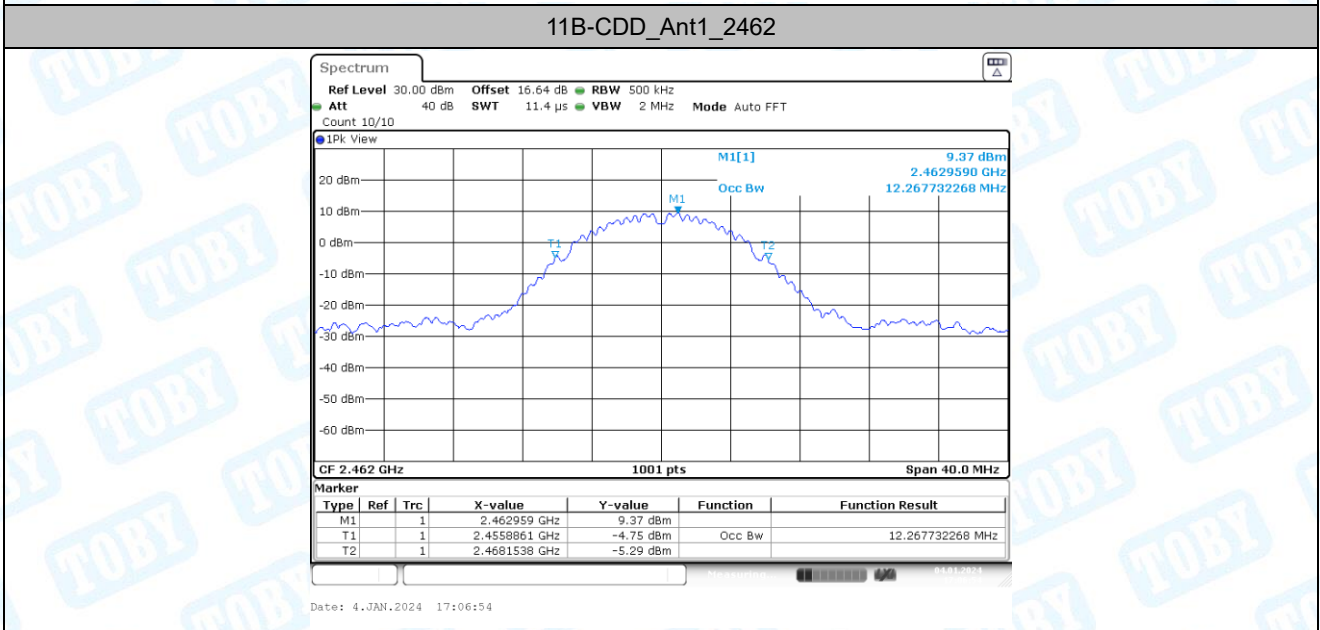
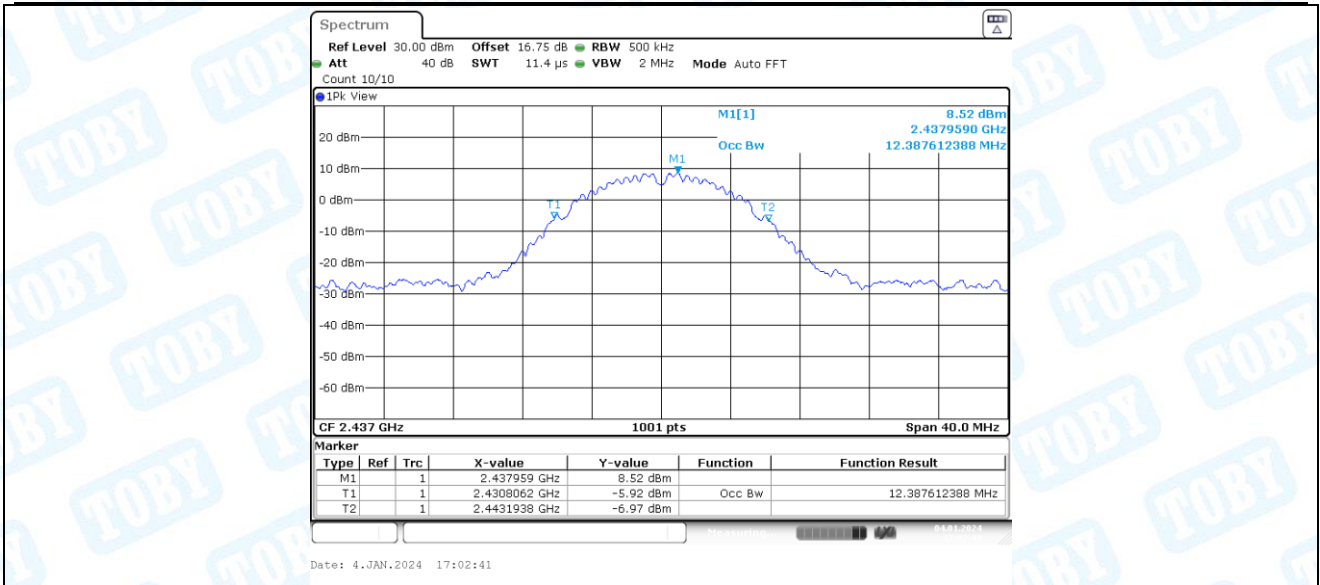
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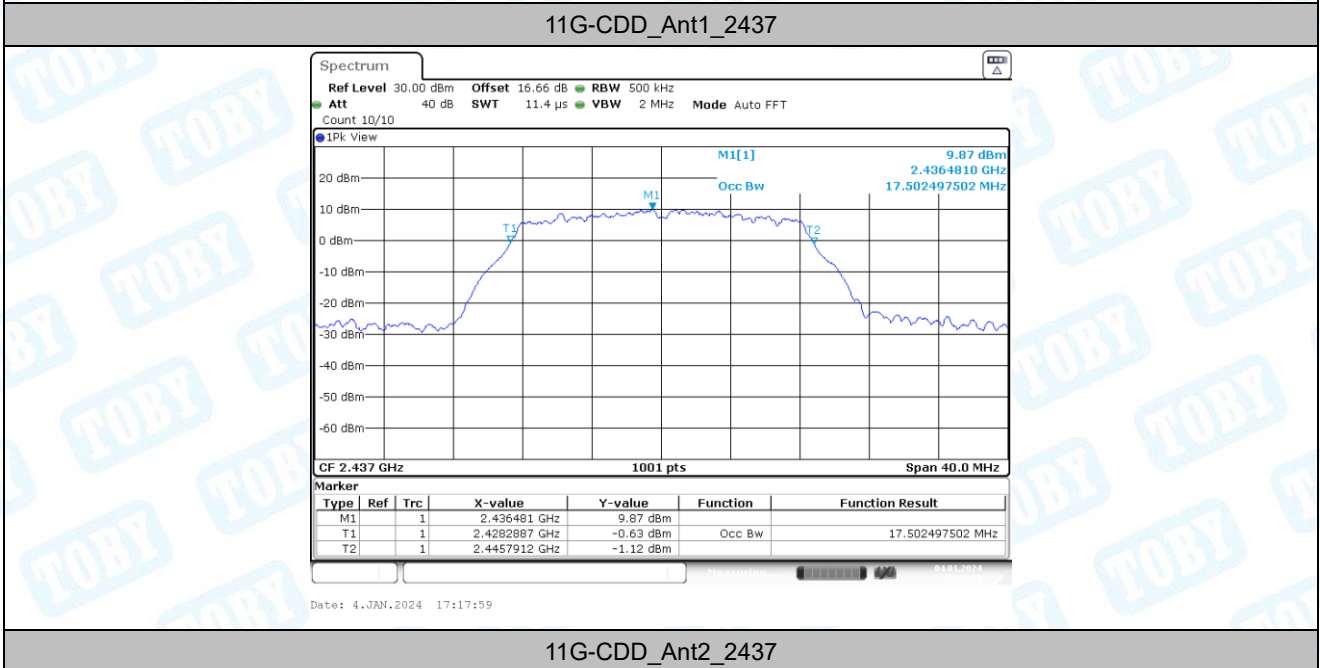
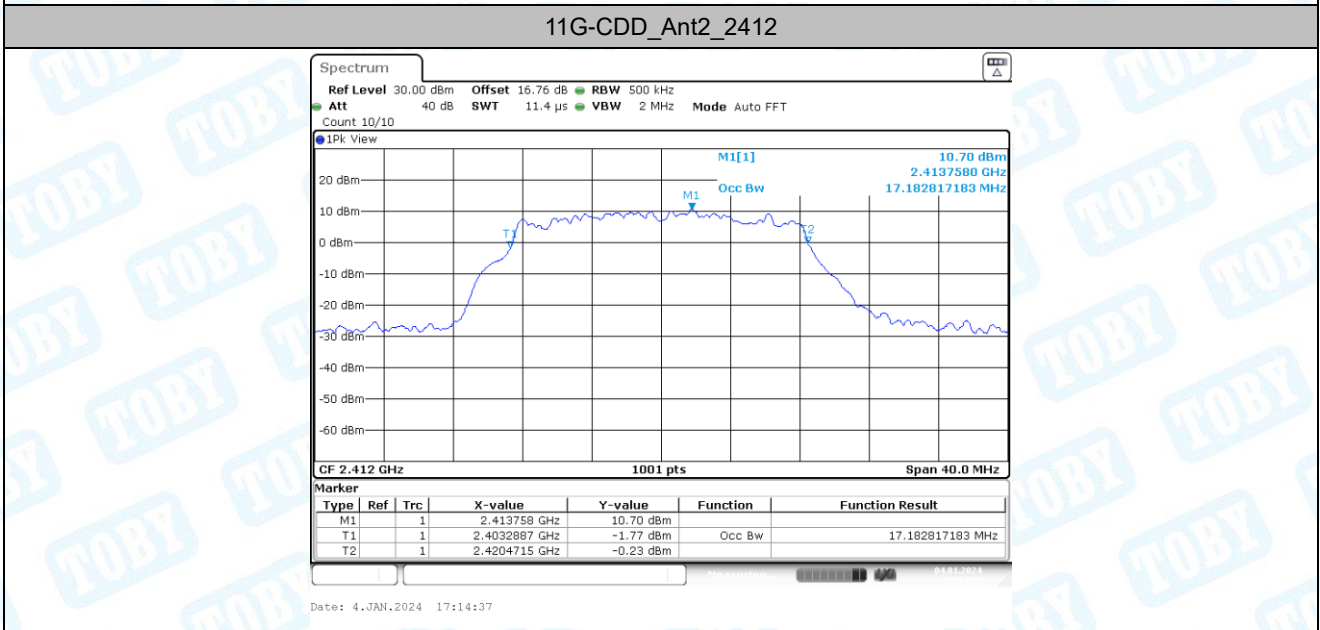
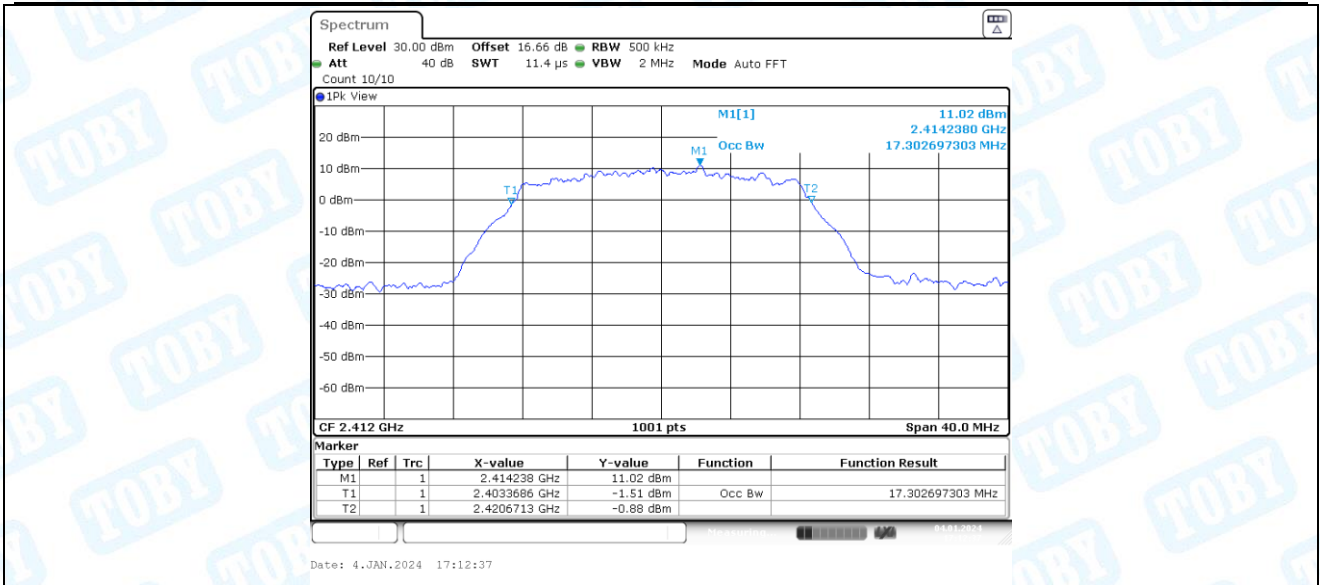


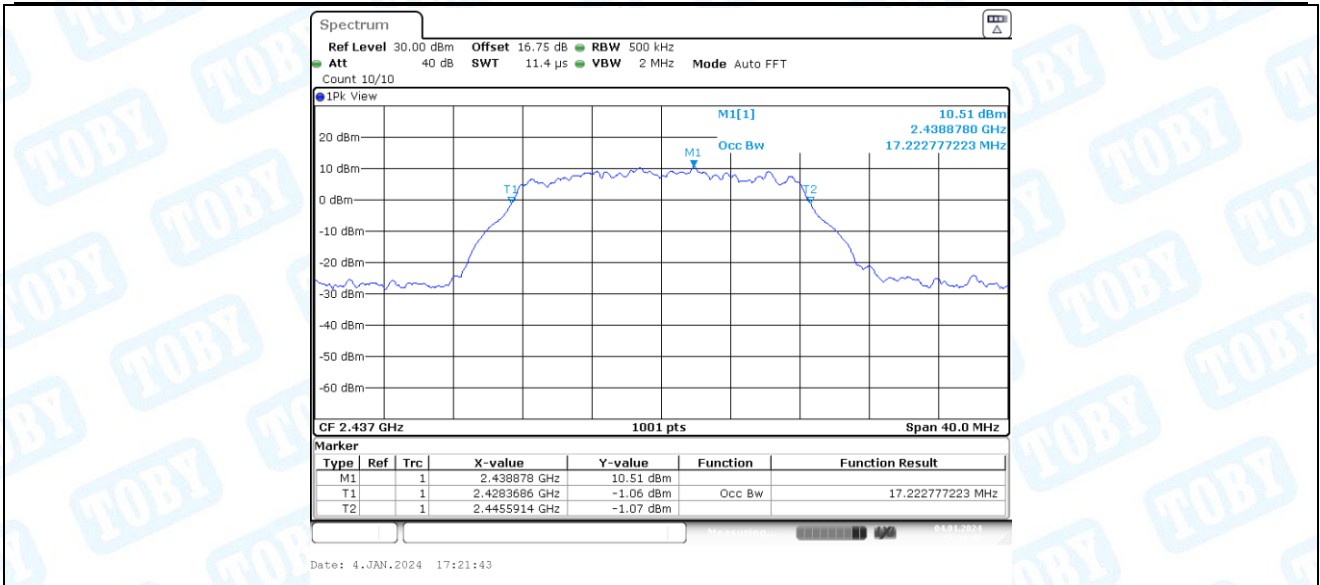
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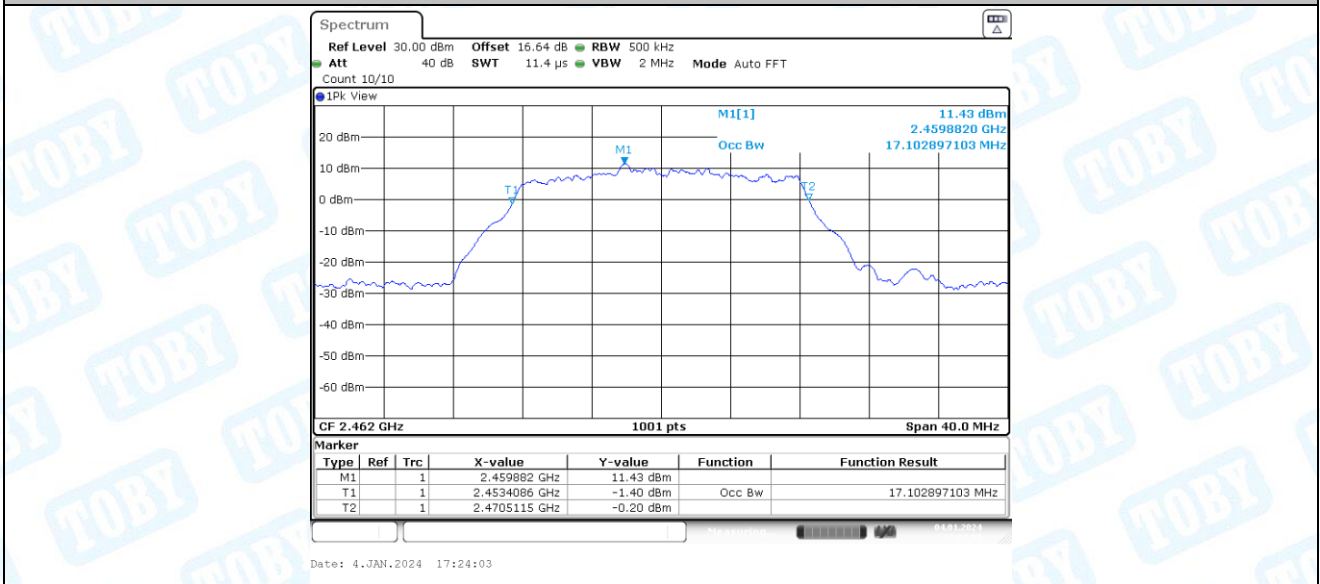
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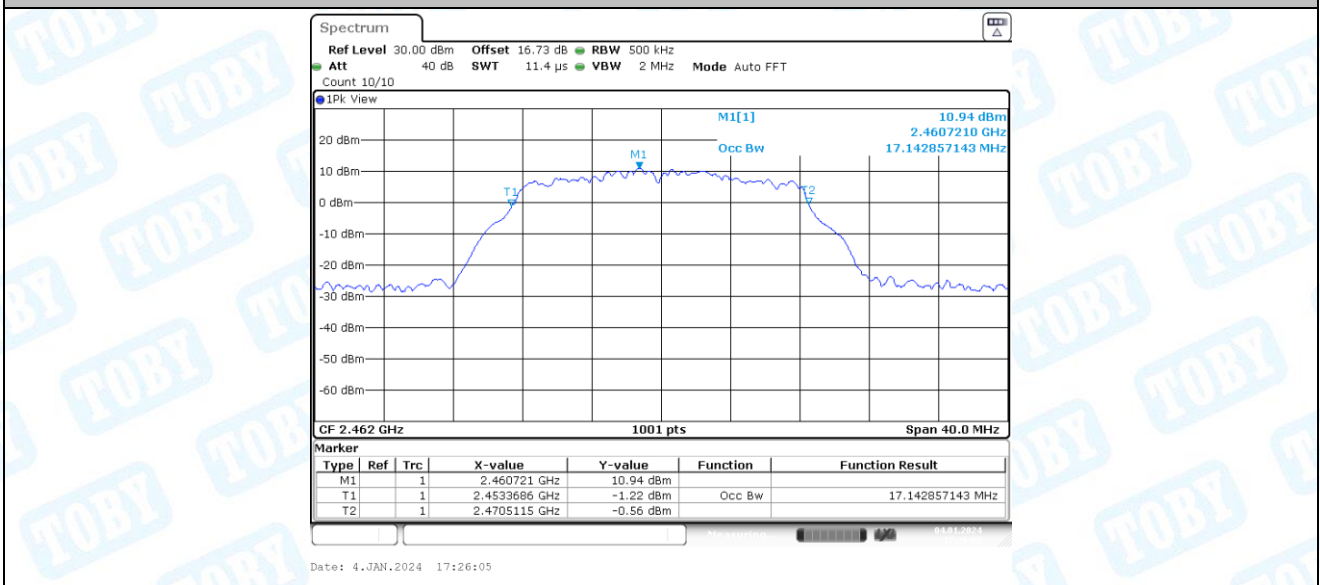




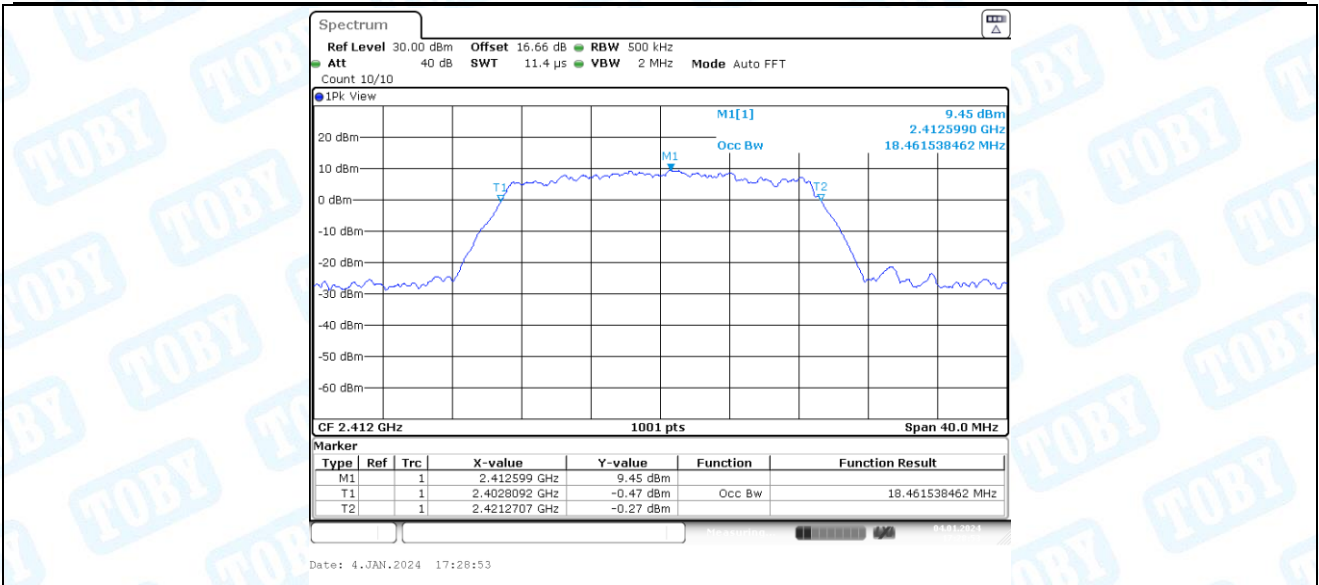
11G-CDD_Ant1_2462



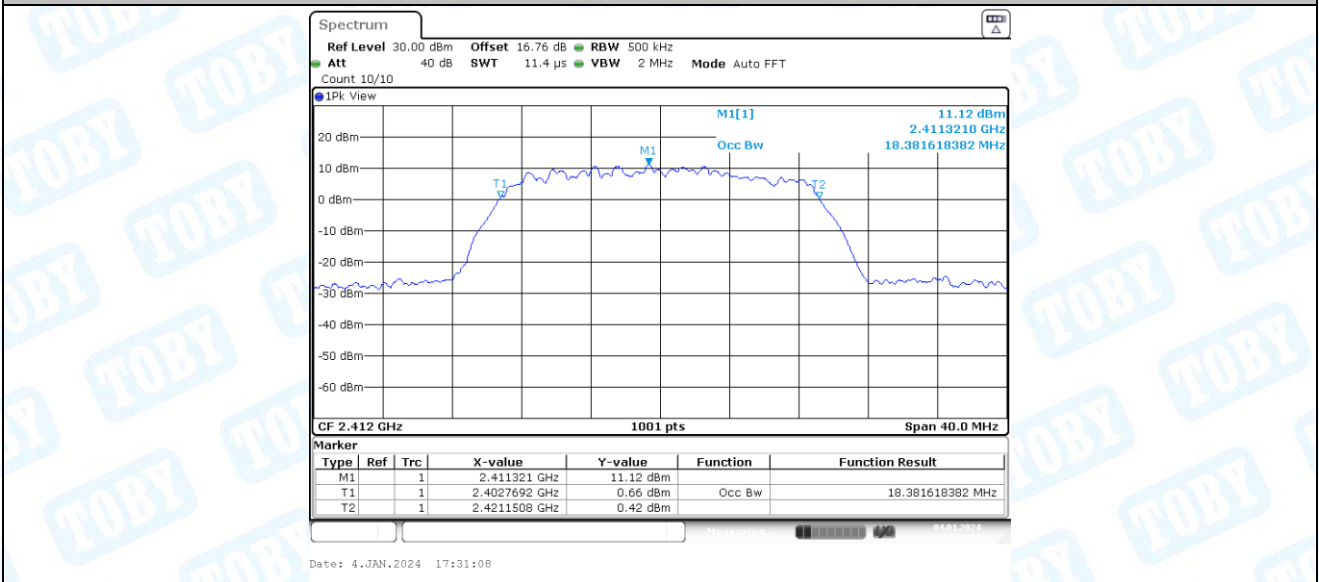
11G-CDD_Ant2_2462



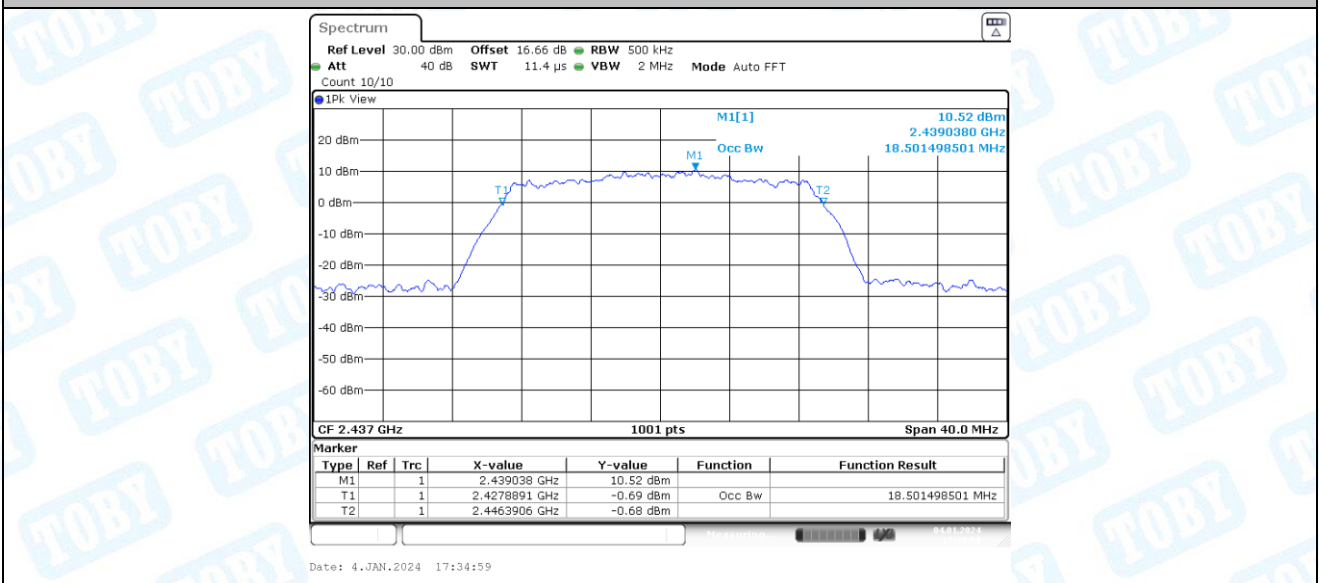
11N20-CDD_Ant1_2412



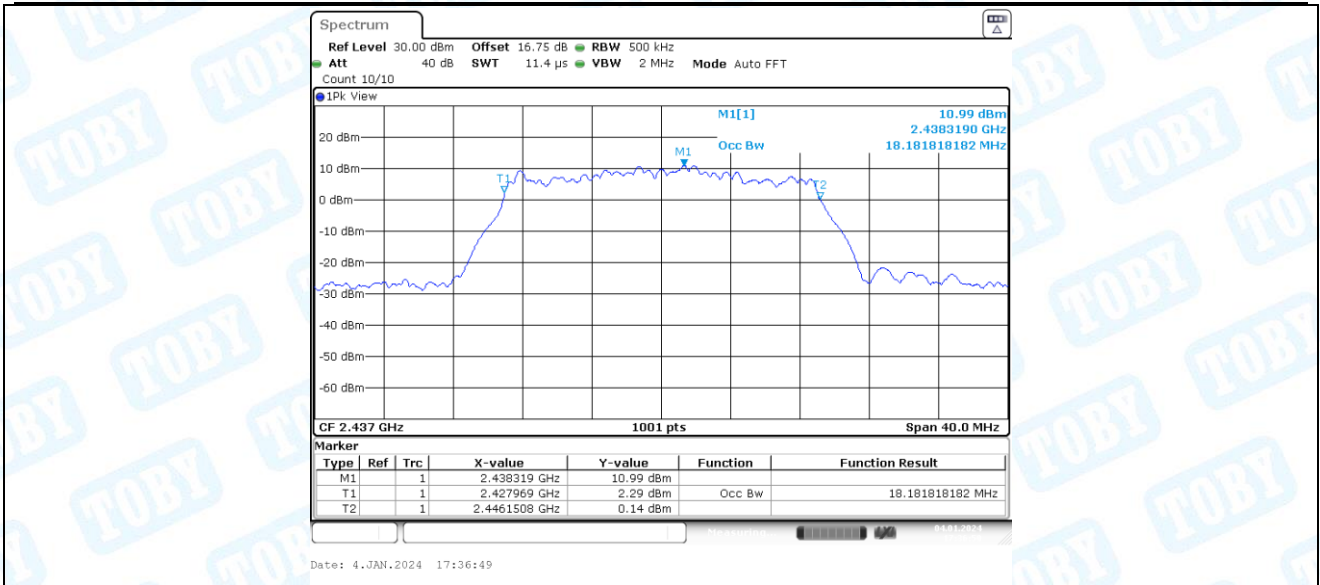
11N20-CDD_Ant2_2412



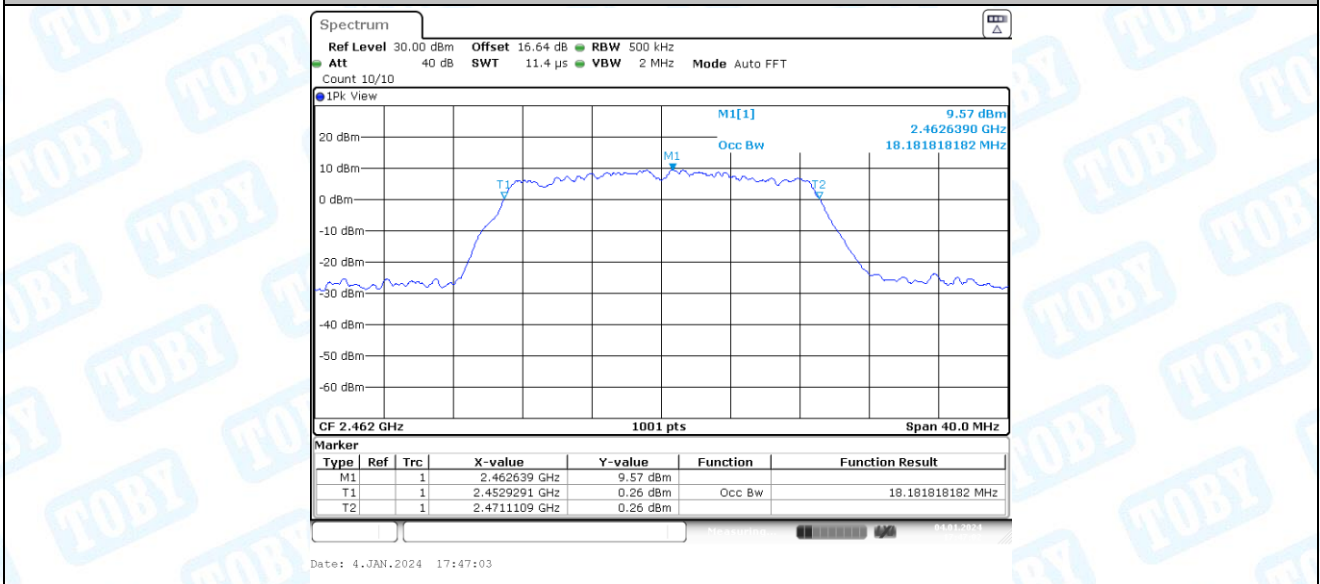
11N20-CDD_Ant1_2437



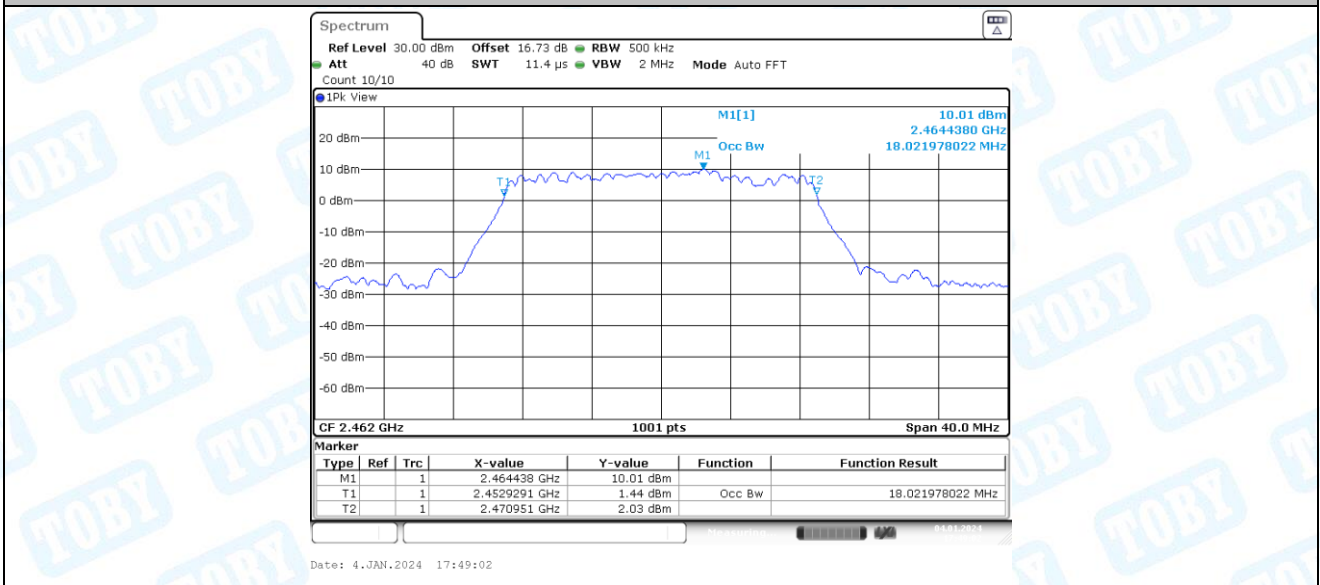
11N20-CDD_Ant2_2437



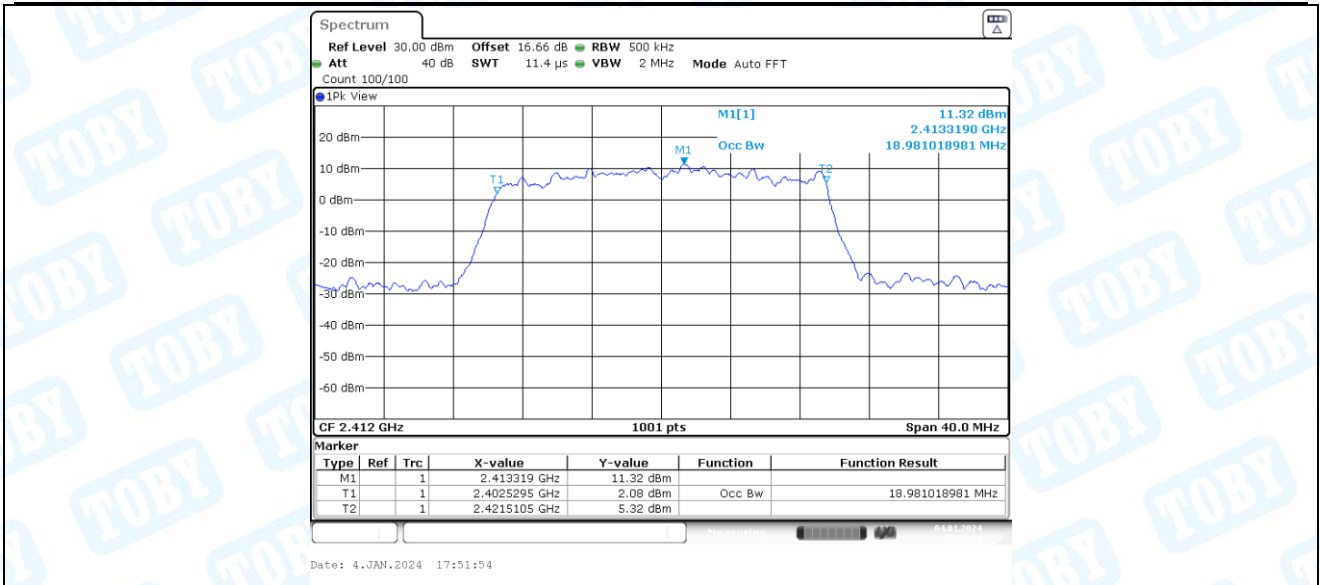
11N20-CDD_Ant1_2462



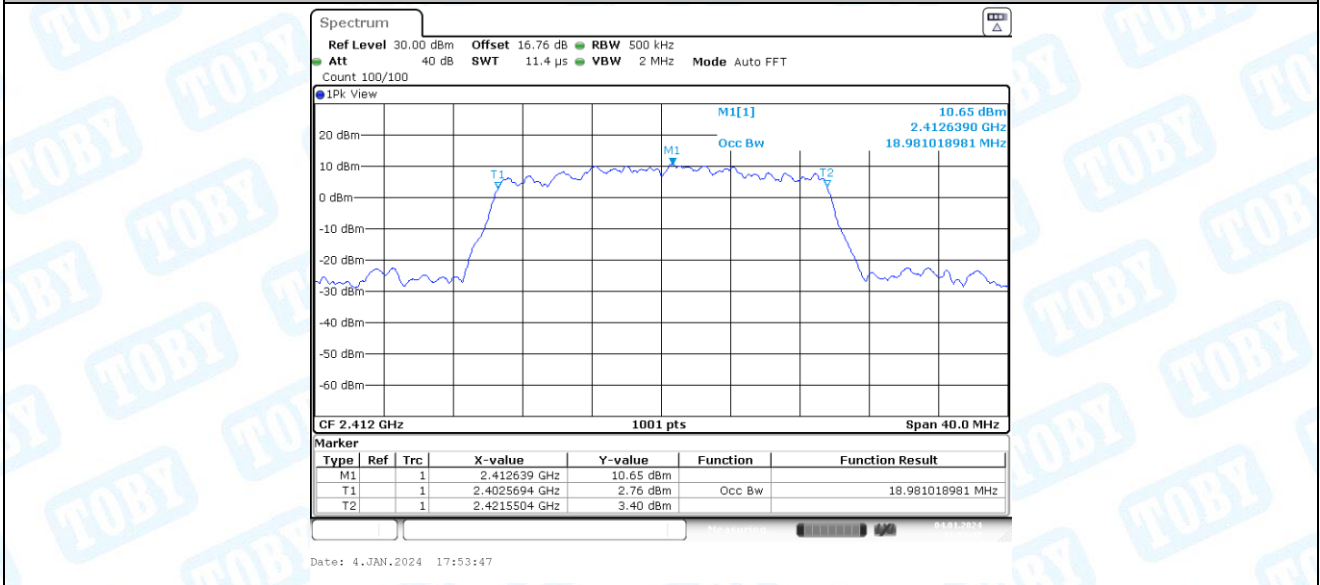
11N20-CDD_Ant2_2462



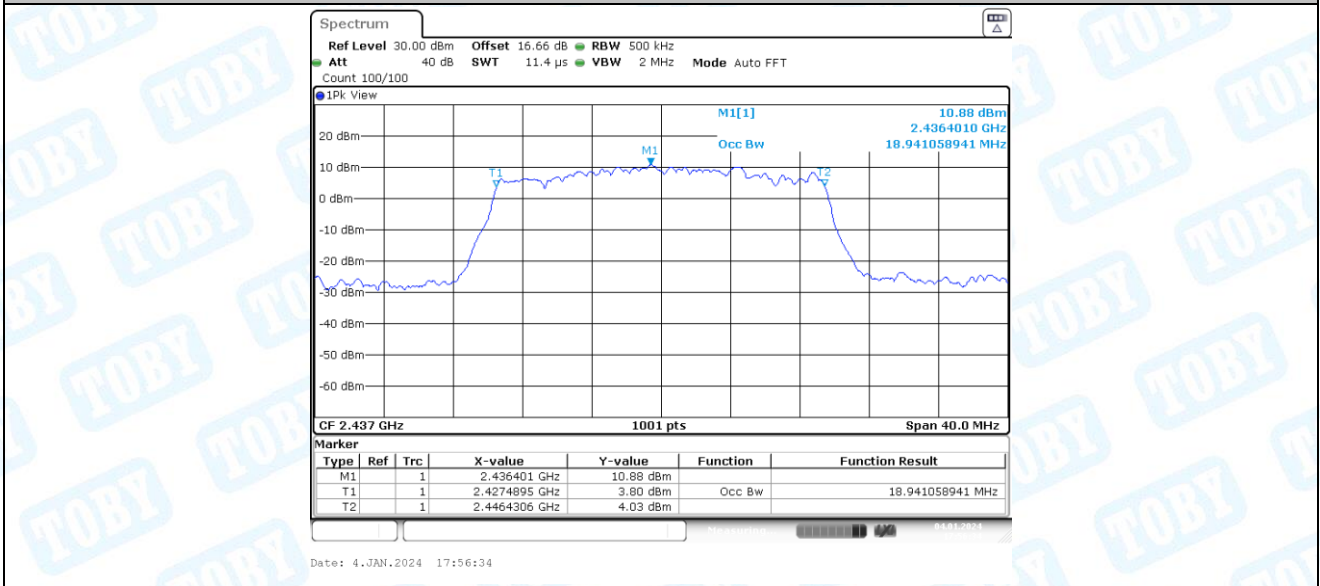
11AX20-CDD_Ant1_2412



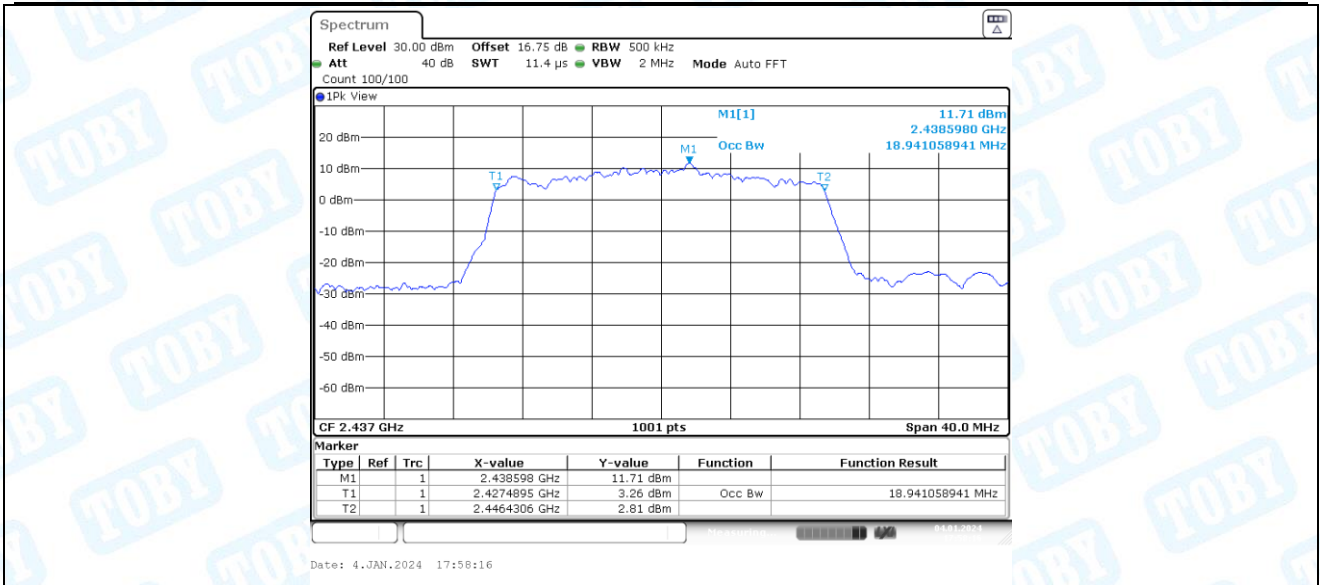
11AX20-CDD_Ant2_2412



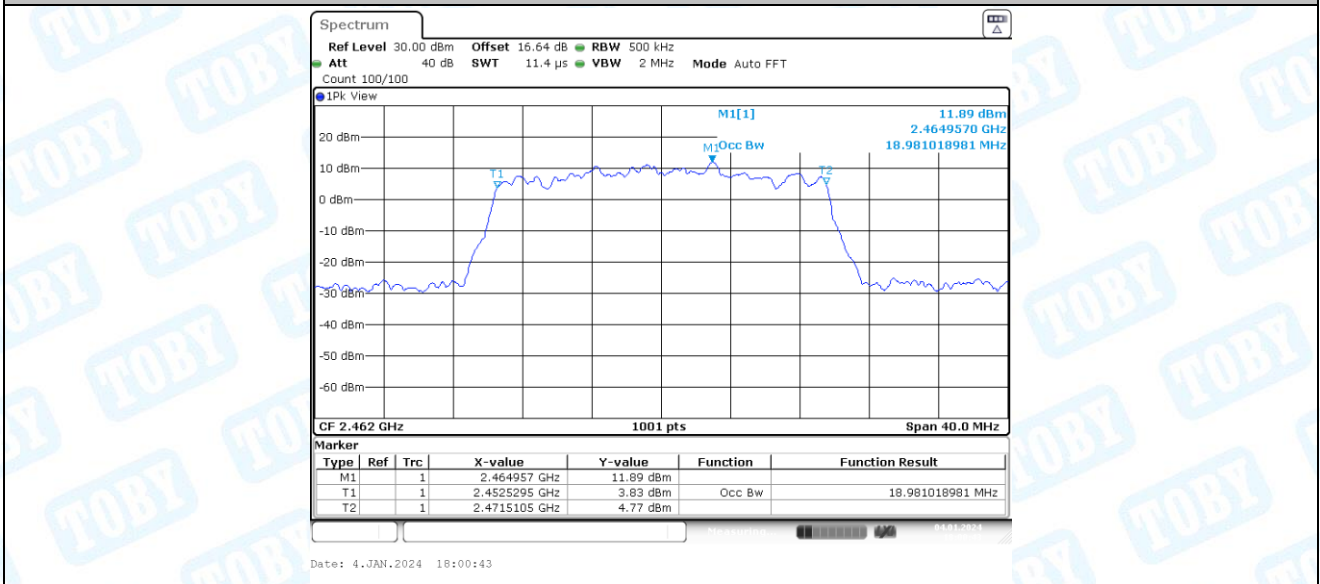
11AX20-CDD_Ant1_2437



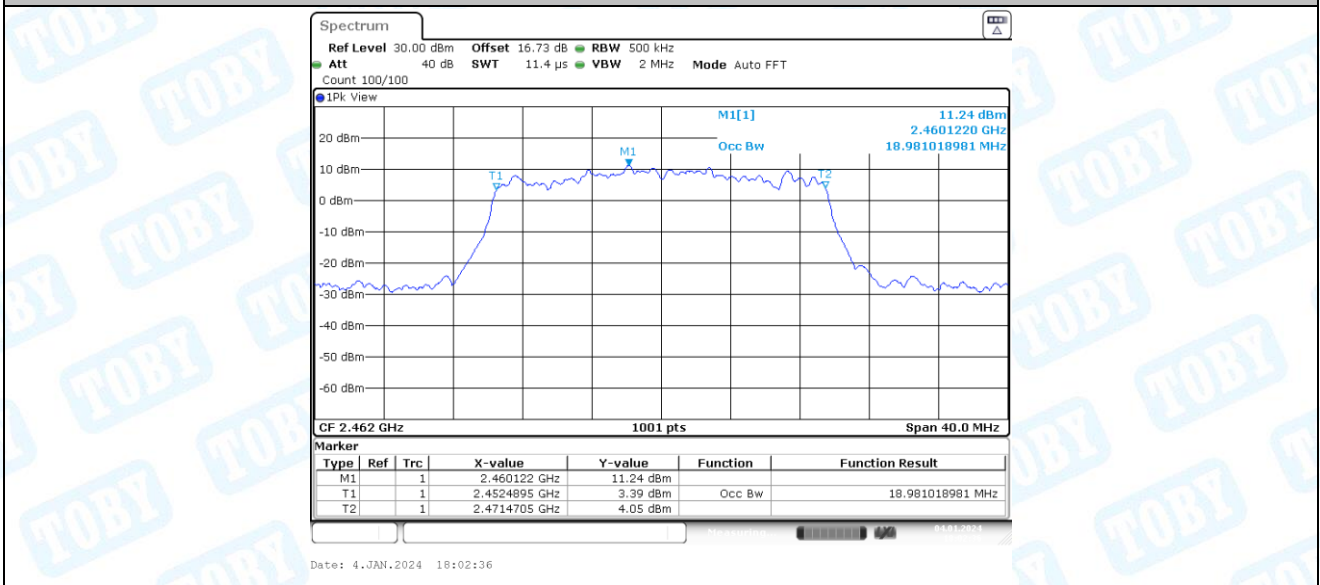
11AX20-CDD_Ant2_2437



11AX20-CDD_Ant1_2462



11AX20-CDD_Ant2_2462



3. Maximum conducted output power

3.1. Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	19.34	≤30.00	PASS
	Ant2	2412	17.47	≤30.00	PASS
	Ant1	2437	19.80	≤30.00	PASS
	Ant2	2437	19.08	≤30.00	PASS
	Ant1	2462	19.81	≤30.00	PASS
	Ant2	2462	17.39	≤30.00	PASS
11G	Ant1	2412	16.83	≤30.00	PASS
	Ant2	2412	16.35	≤30.00	PASS
	Ant1	2437	19.12	≤30.00	PASS
	Ant2	2437	18.65	≤30.00	PASS
	Ant1	2462	18.32	≤30.00	PASS
	Ant2	2462	17.13	≤30.00	PASS
11B-CDD	Ant1	2412	16.47	≤30.00	PASS
	Ant2	2412	15.65	≤30.00	PASS
	total	2412	19.09	≤30.00	PASS
	Ant1	2437	16.68	≤30.00	PASS
	Ant2	2437	15.85	≤30.00	PASS
	total	2437	19.30	≤30.00	PASS
	Ant1	2462	16.63	≤30.00	PASS
	Ant2	2462	15.75	≤30.00	PASS
	total	2462	19.22	≤30.00	PASS
11G-CDD	Ant1	2412	15.48	≤30.00	PASS
	Ant2	2412	15.63	≤30.00	PASS
	total	2412	18.57	≤30.00	PASS
	Ant1	2437	17.04	≤30.00	PASS
	Ant2	2437	16.57	≤30.00	PASS
	total	2437	19.82	≤30.00	PASS
	Ant1	2462	16.99	≤30.00	PASS
	Ant2	2462	16.44	≤30.00	PASS
	total	2462	19.73	≤30.00	PASS
11N20-CDD	Ant1	2412	15.76	≤30.00	PASS
	Ant2	2412	15.78	≤30.00	PASS
	total	2412	18.78	≤30.00	PASS
	Ant1	2437	16.91	≤30.00	PASS
	Ant2	2437	16.68	≤30.00	PASS
	total	2437	19.81	≤30.00	PASS
	Ant1	2462	17.03	≤30.00	PASS
	Ant2	2462	16.64	≤30.00	PASS
	total	2462	19.85	≤30.00	PASS
11AX20-CDD	Ant1	2412	15.93	≤30.00	PASS
	Ant2	2412	16.00	≤30.00	PASS
	total	2412	18.98	≤30.00	PASS
	Ant1	2437	16.35	≤30.00	PASS
	Ant2	2437	16.02	≤30.00	PASS
	total	2437	19.20	≤30.00	PASS
	Ant1	2462	16.20	≤30.00	PASS
	Ant2	2462	15.93	≤30.00	PASS
	total	2462	19.08	≤30.00	PASS

Note: ANT.1(3.40dBi) and ANT. 2(4.18dBi), For SISO and CDD mode the Directional gain=Max Gain(4.18dBi)<6dBi, So the P_{limit}=30dBm.

4. Maximum power spectral density

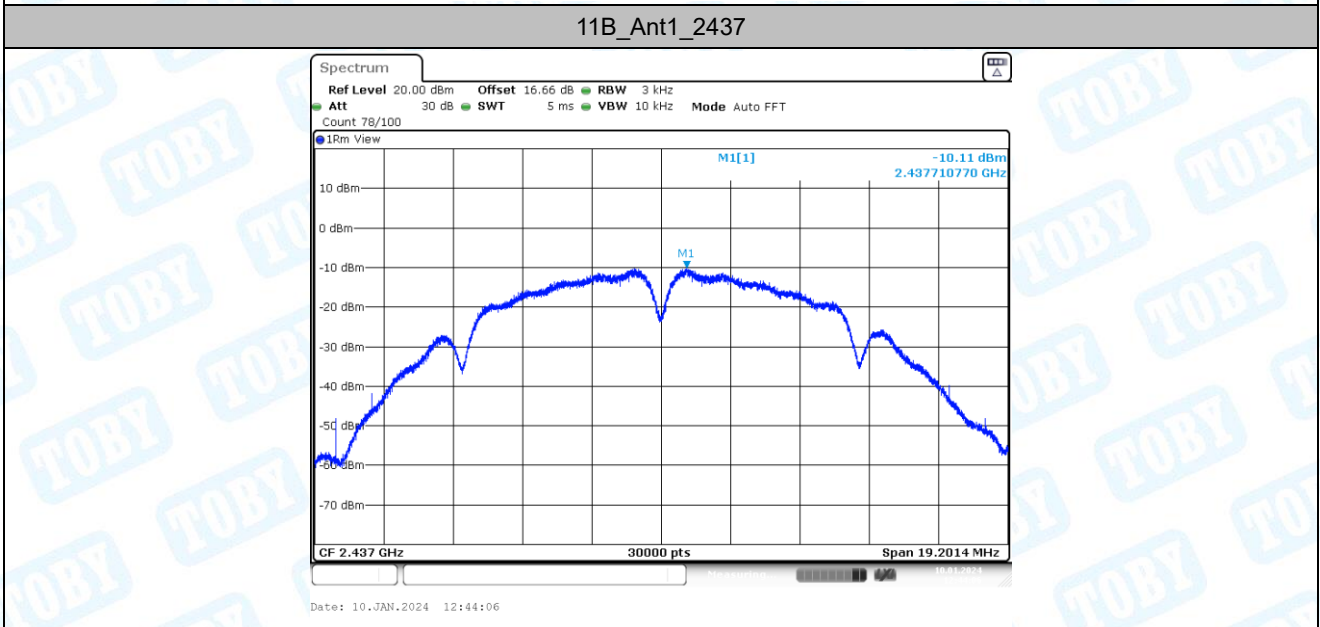
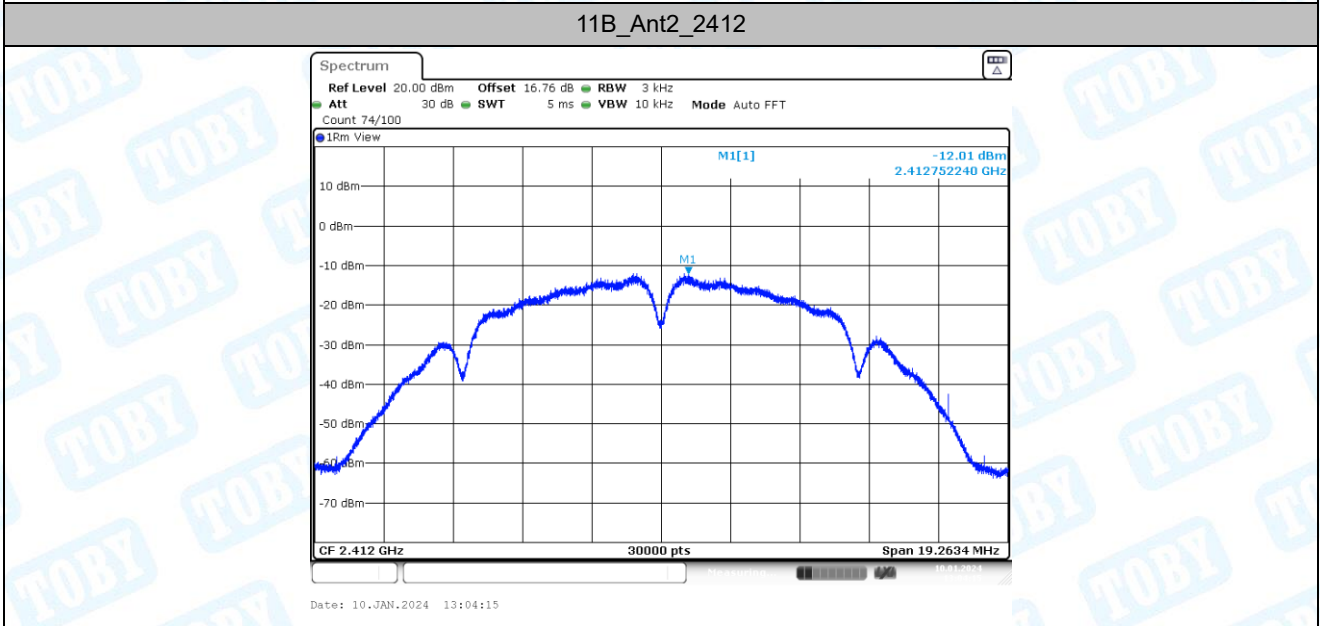
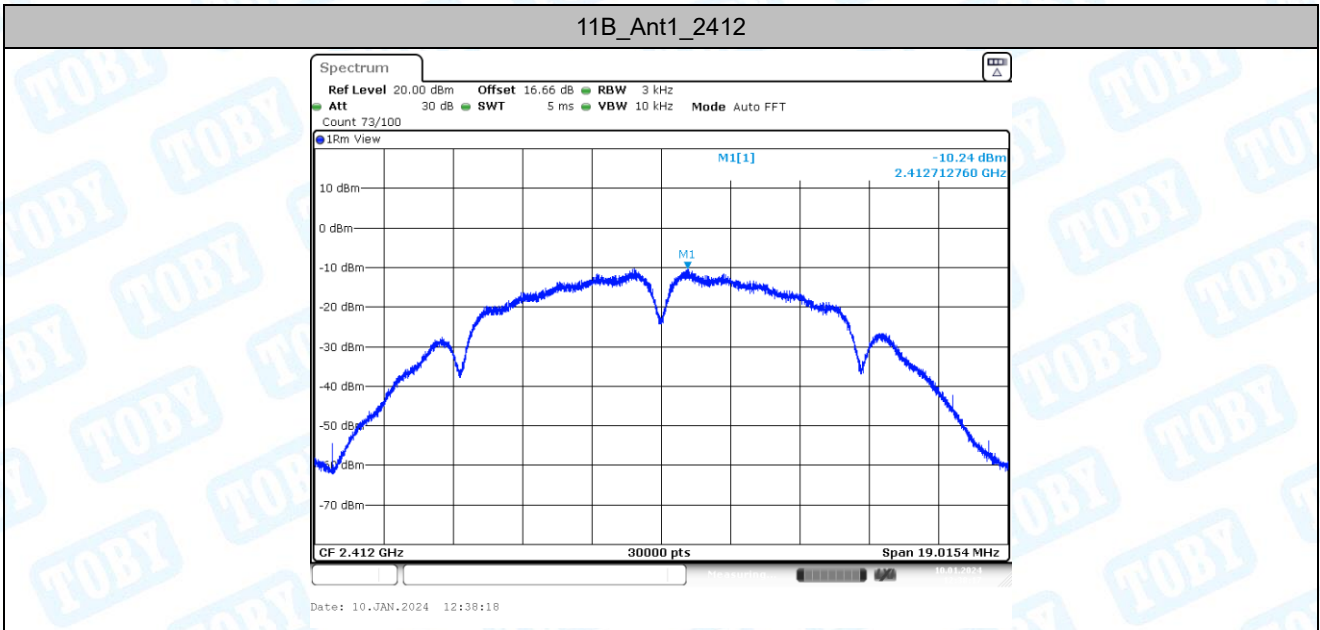
4.1. Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-10.19	≤8.00	PASS
	Ant2	2412	-11.96	≤8.00	PASS
	Ant1	2437	-10.06	≤8.00	PASS
	Ant2	2437	-11.23	≤8.00	PASS
	Ant1	2462	-9.82	≤8.00	PASS
	Ant2	2462	-12.92	≤8.00	PASS
11G	Ant1	2412	-14.03	≤8.00	PASS
	Ant2	2412	-15.12	≤8.00	PASS
	Ant1	2437	-12.06	≤8.00	PASS
	Ant2	2437	-13.05	≤8.00	PASS
	Ant1	2462	-12.51	≤8.00	PASS
	Ant2	2462	-13.82	≤8.00	PASS
11B-CDD	Ant1	2412	-13.64	≤8.00	PASS
	Ant2	2412	-14.41	≤8.00	PASS
	total	2412	-11.00	≤7.19	PASS
	Ant1	2437	-13.03	≤8.00	PASS
	Ant2	2437	-14.07	≤8.00	PASS
	total	2437	-10.51	≤7.19	PASS
	Ant1	2462	-13.21	≤8.00	PASS
	Ant2	2462	-16.90	≤8.00	PASS
	total	2462	-11.66	≤7.19	PASS
11G-CDD	Ant1	2412	-16.21	≤8.00	PASS
	Ant2	2412	-15.89	≤8.00	PASS
	total	2412	-13.04	≤7.19	PASS
	Ant1	2437	-13.28	≤8.00	PASS
	Ant2	2437	-14.76	≤8.00	PASS
	total	2437	-10.95	≤7.19	PASS
	Ant1	2462	-15.06	≤8.00	PASS
	Ant2	2462	-14.53	≤8.00	PASS
	total	2462	-11.78	≤7.19	PASS
11N20-CDD	Ant1	2412	-17.36	≤8.00	PASS
	Ant2	2412	-16.76	≤8.00	PASS
	total	2412	-14.04	≤7.19	PASS
	Ant1	2437	-15.45	≤8.00	PASS
	Ant2	2437	-15.29	≤8.00	PASS
	total	2437	-12.36	≤7.19	PASS
	Ant1	2462	-16.01	≤8.00	PASS
	Ant2	2462	-15.96	≤8.00	PASS
	total	2462	-12.97	≤7.19	PASS
11AX20-CDD	Ant1	2412	-15.58	≤8.00	PASS
	Ant2	2412	-16.10	≤8.00	PASS
	total	2412	-12.82	≤7.19	PASS
	Ant1	2437	-14.86	≤8.00	PASS
	Ant2	2437	-14.71	≤8.00	PASS
	total	2437	-11.77	≤7.19	PASS
	Ant1	2462	-15.89	≤8.00	PASS
	Ant2	2462	-15.02	≤8.00	PASS
	total	2462	-12.42	≤7.19	PASS

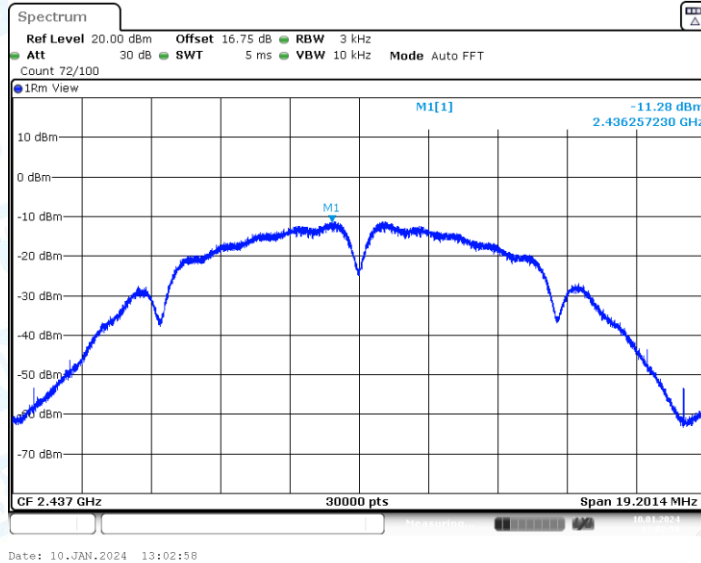
Note: ANT.1(3.40dBi) and ANT. 2(4.18dBi), For CDD mode the Directional gain=6.81dBi>6dBi,
 So the PSD_{limit}=8-(6.81-6)dBm/3kHz=7.19dBm/3kHz for CDD mode. PSD_{limit}=8dBm/3kHz for SISO.

$$\text{Directional gain} = 10 * \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$$

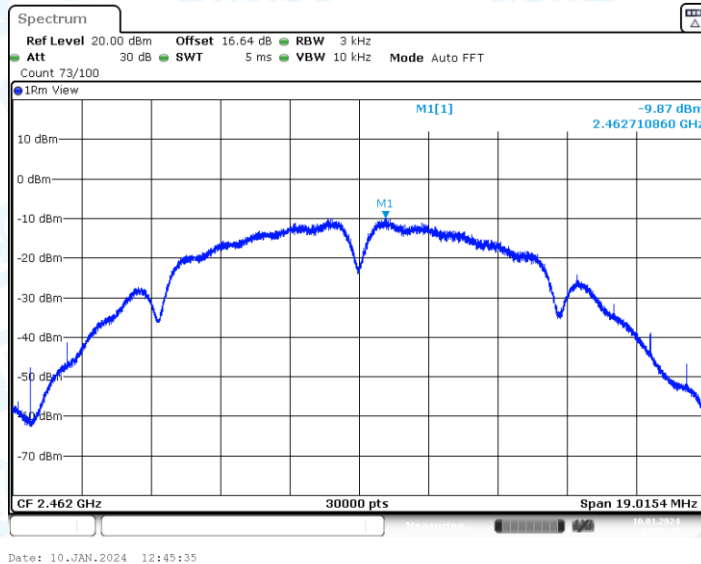
4.2. Test Graphs



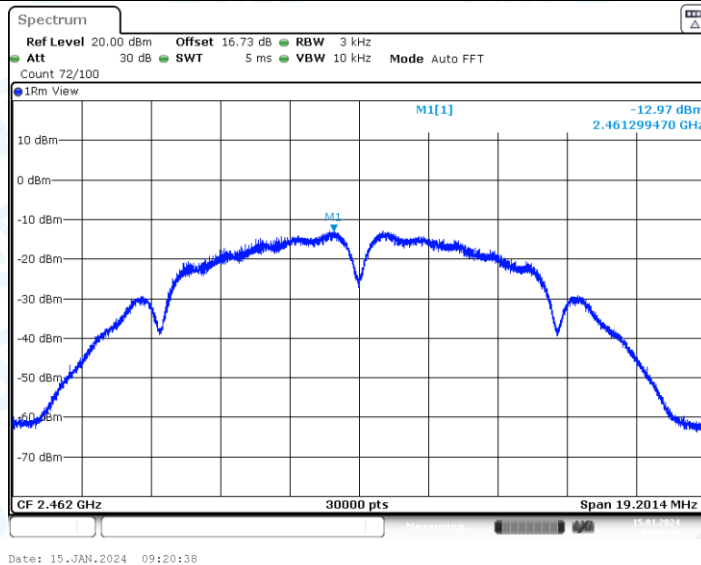
11B_Ant2_2437



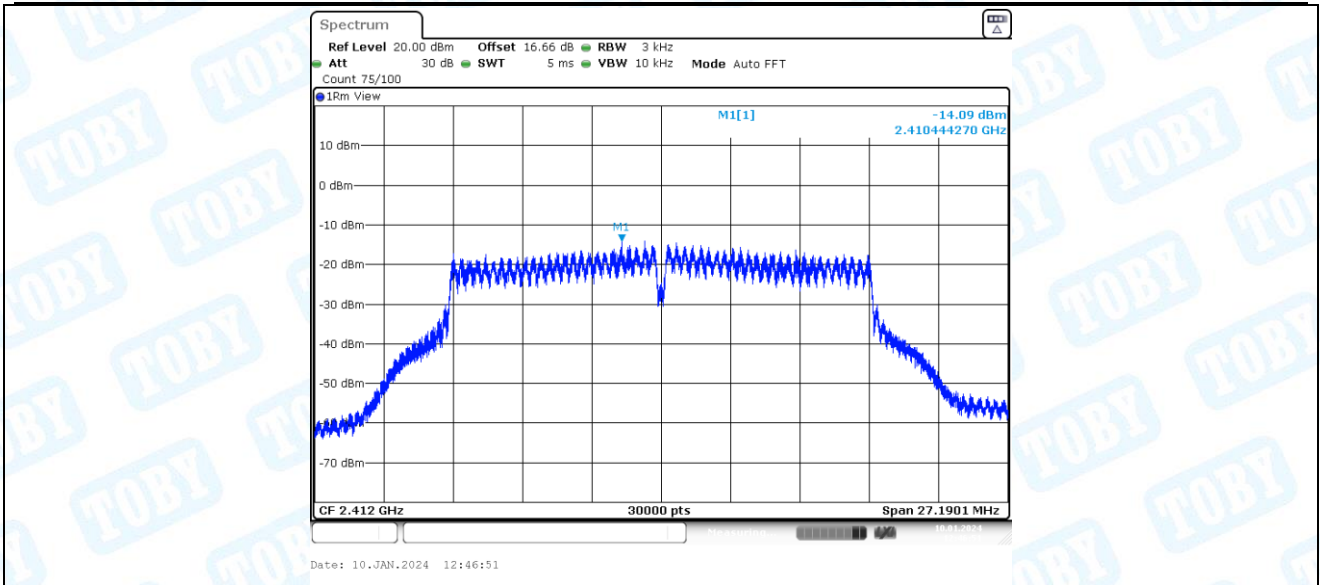
11B_Ant1_2462



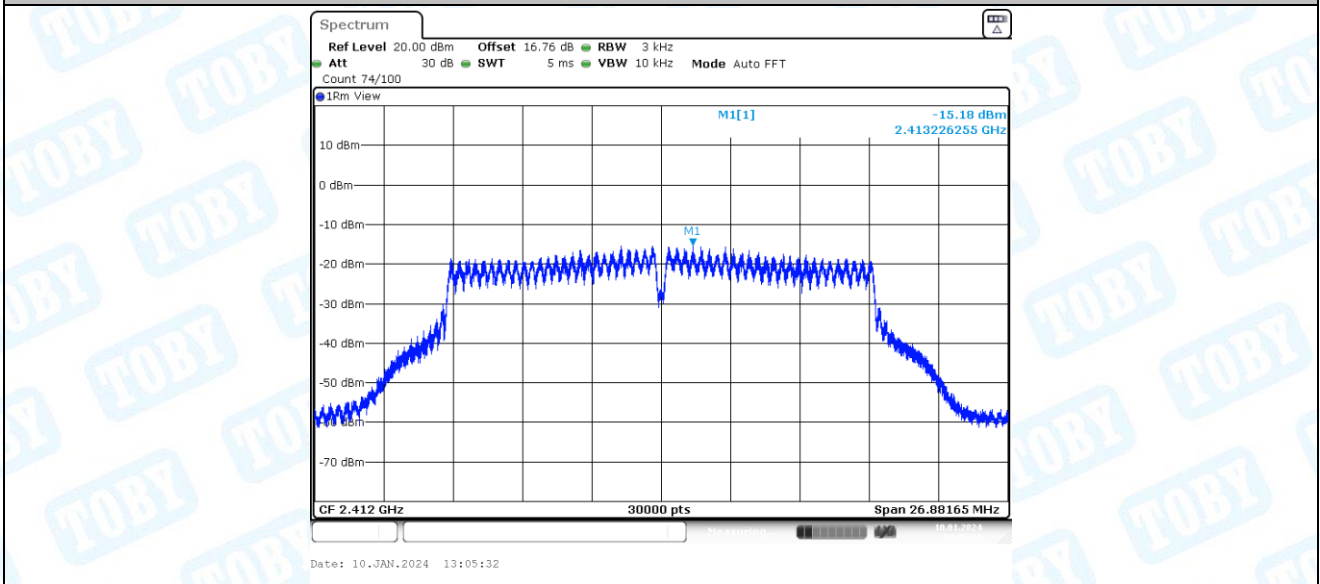
11B_Ant2_2462



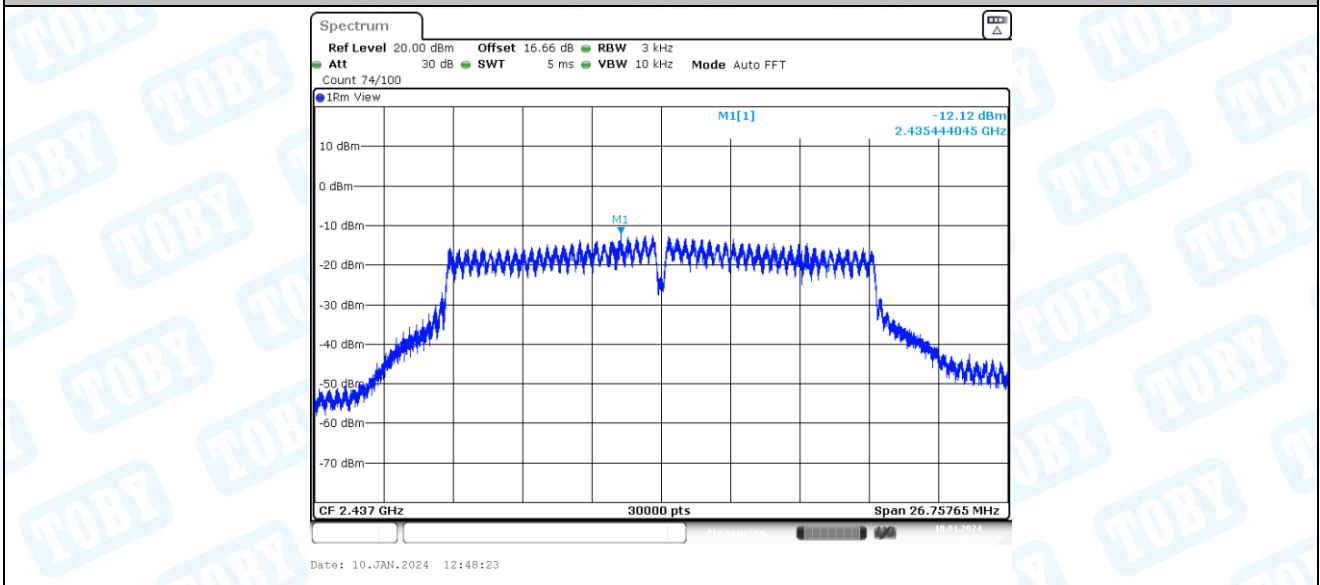
11G_Ant1_2412



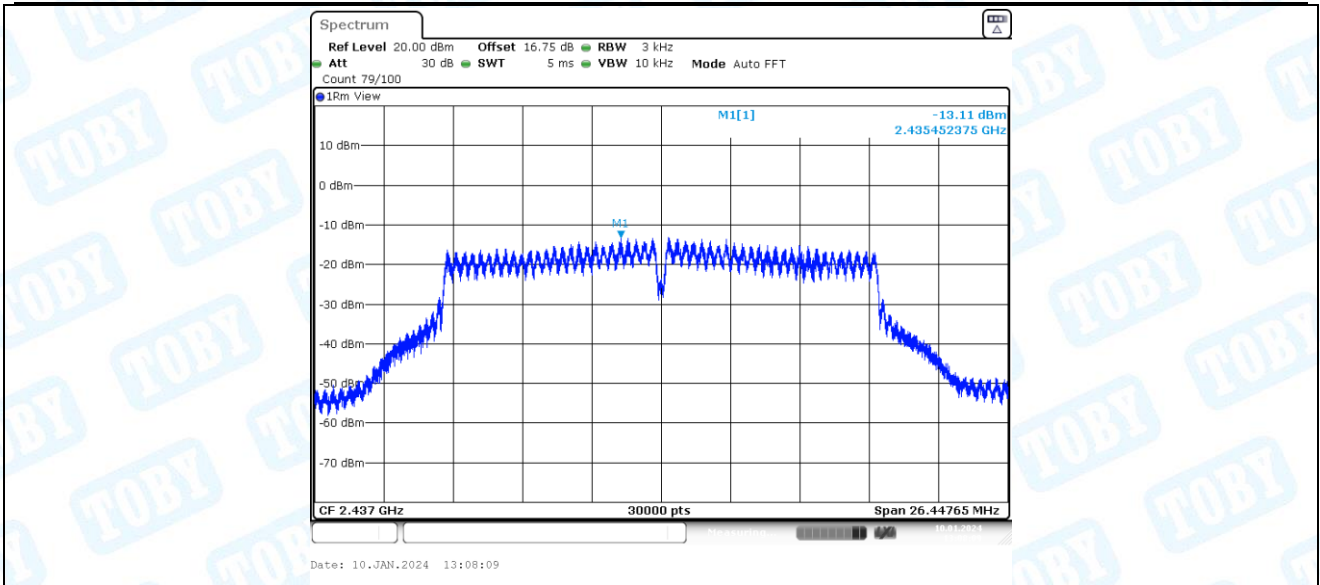
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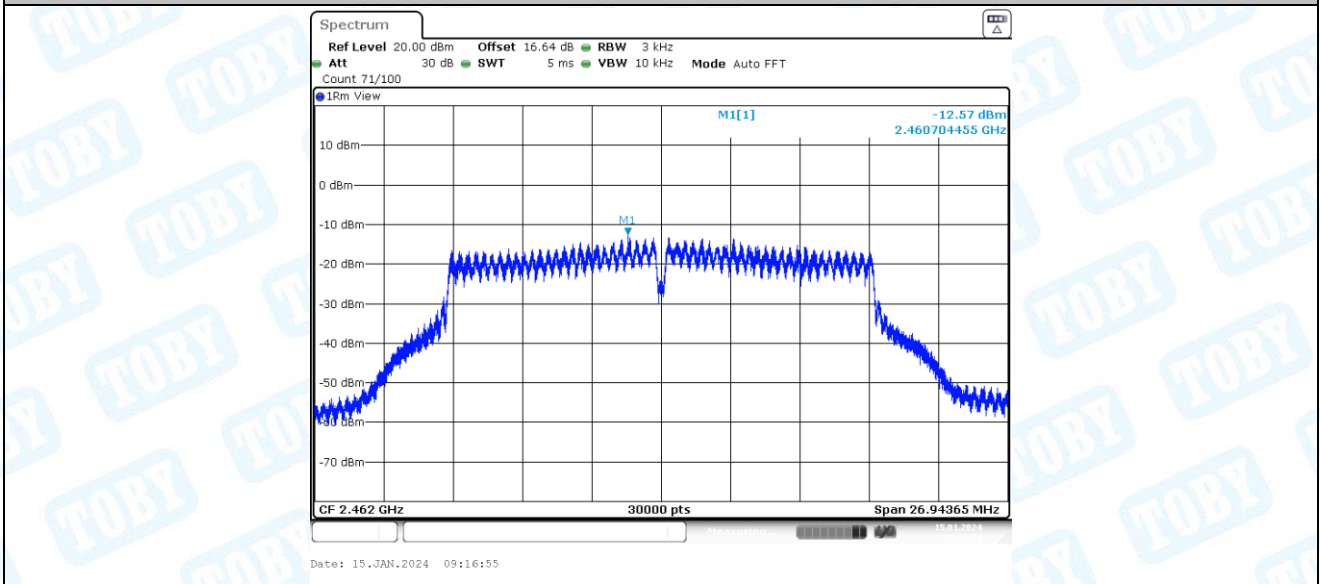
11G_Ant1_2437



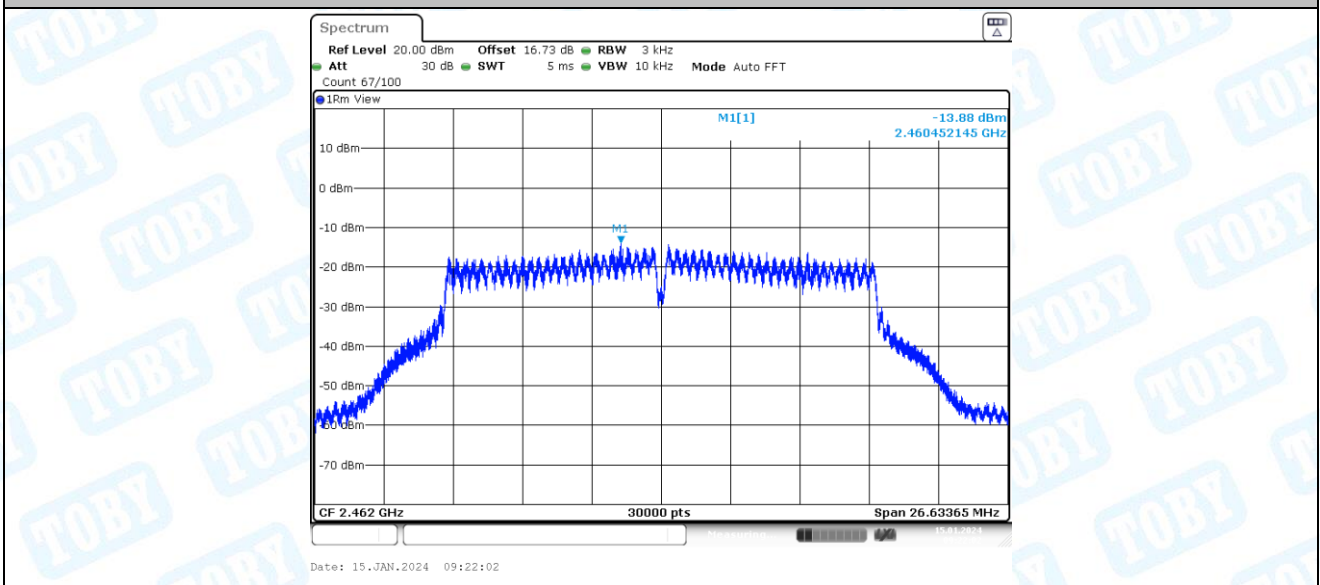
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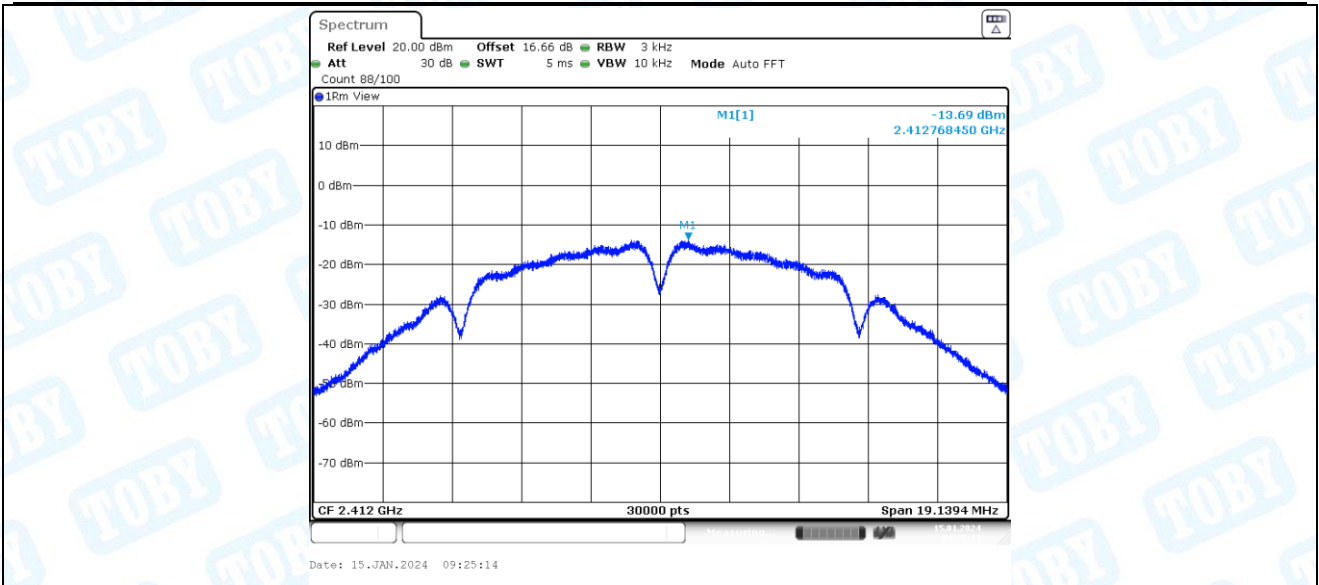
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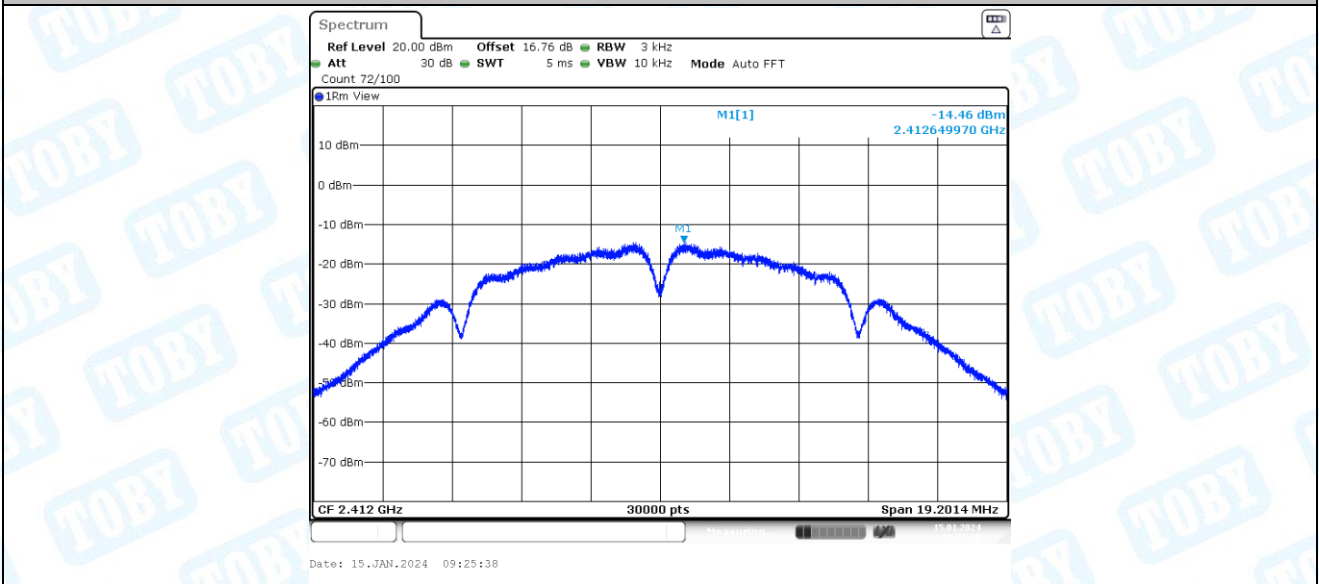
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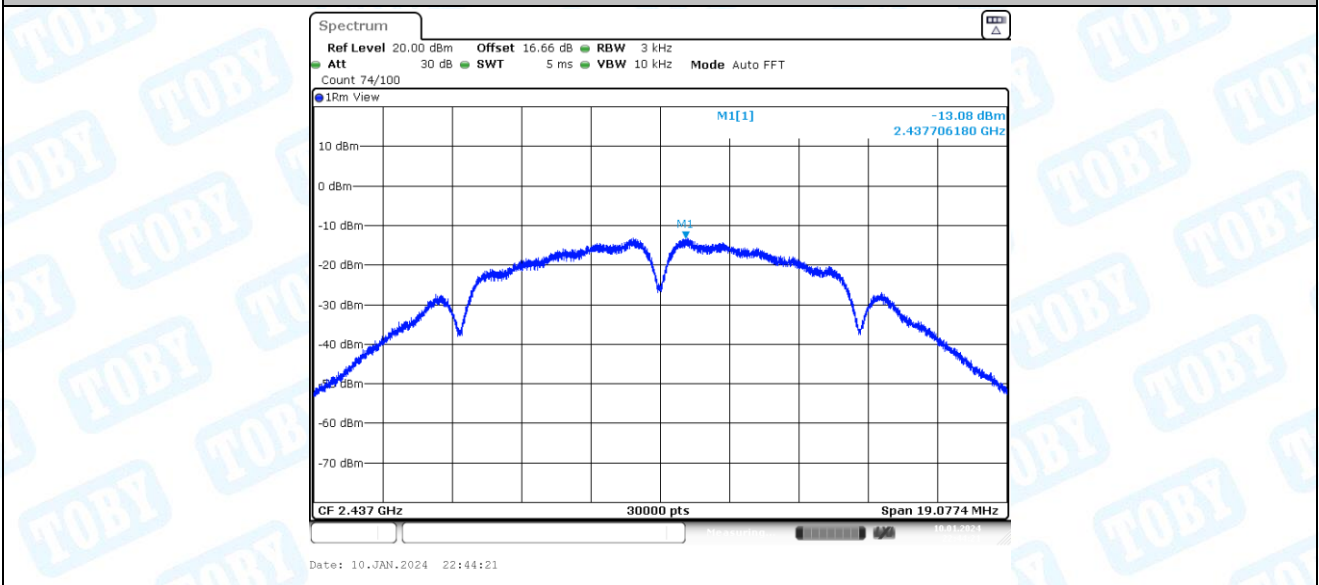
11B-CDD_Ant1_2412



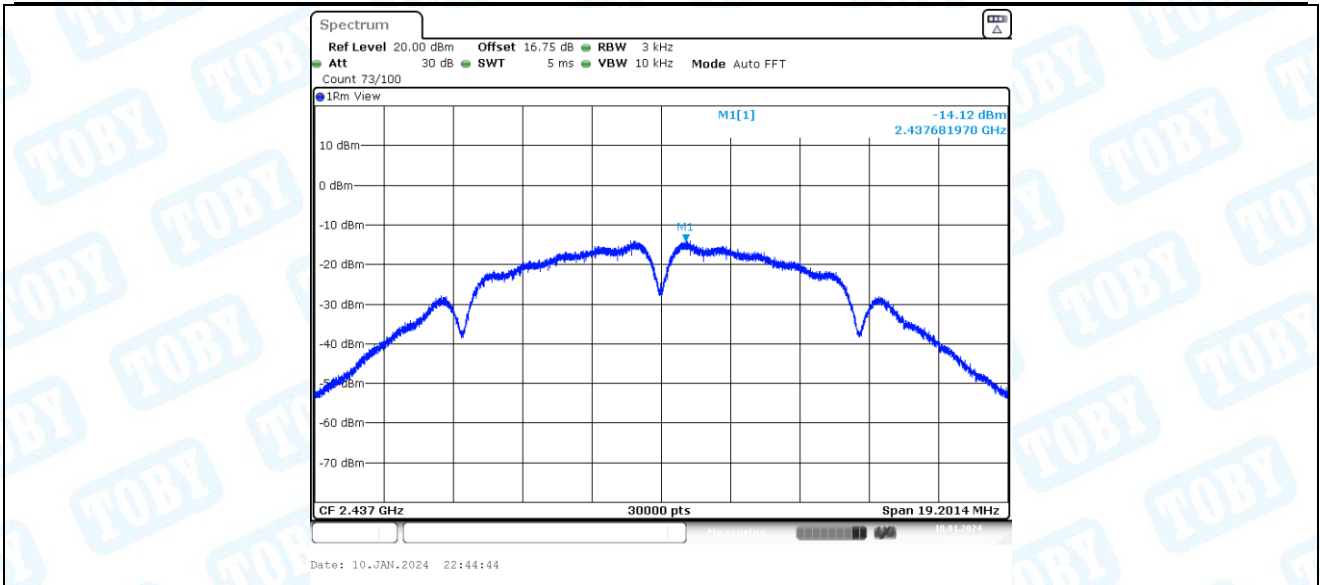
11B-CDD_Ant2_2412



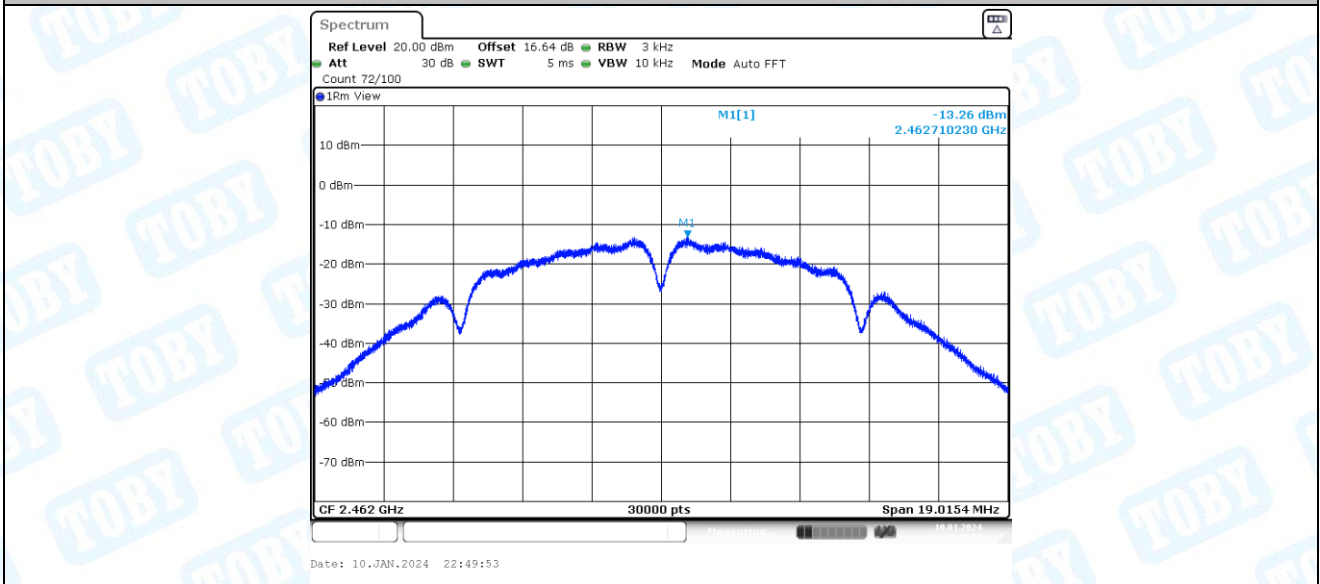
11B-CDD_Ant1_2437



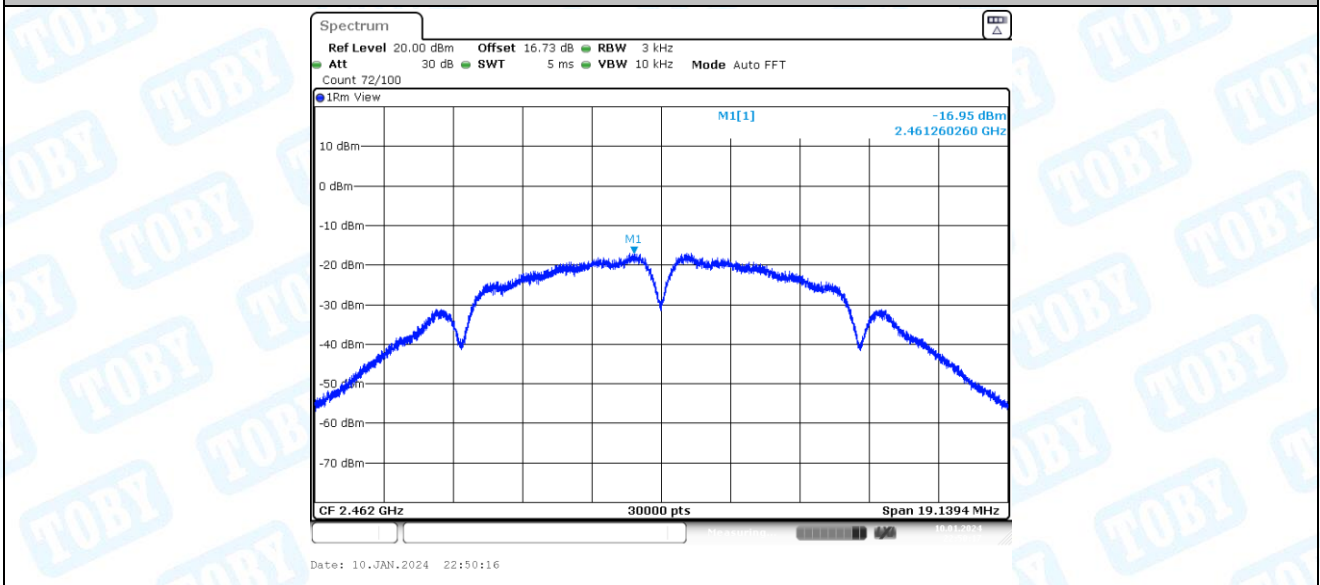
11B-CDD_Ant2_2437



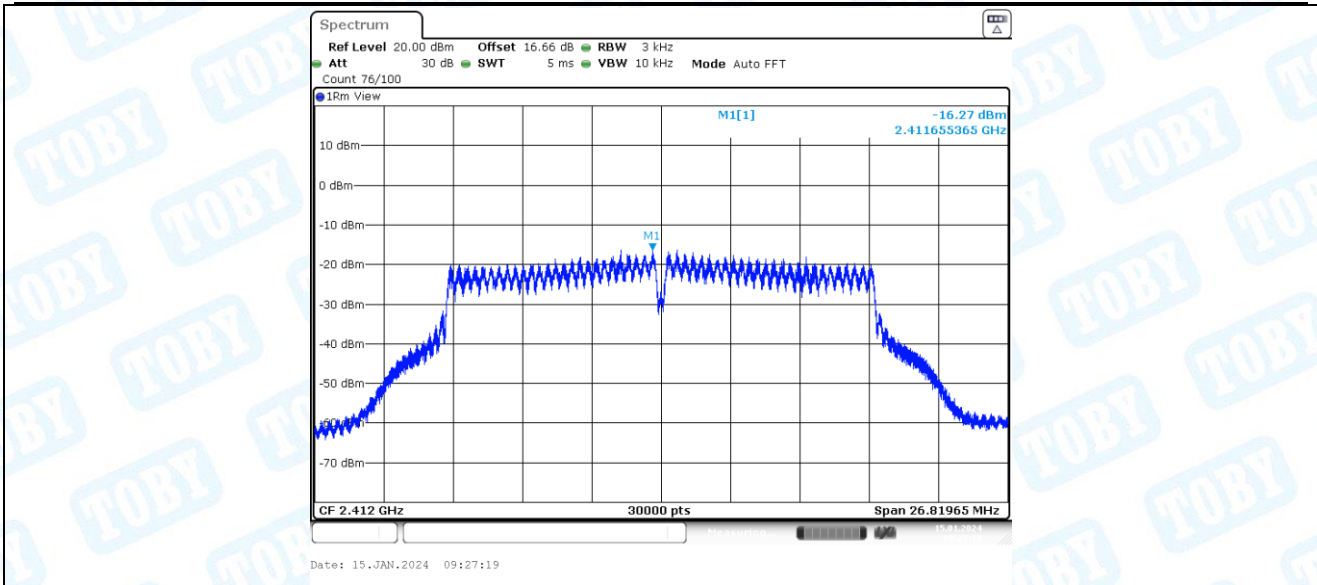
11B-CDD_Ant1_2462



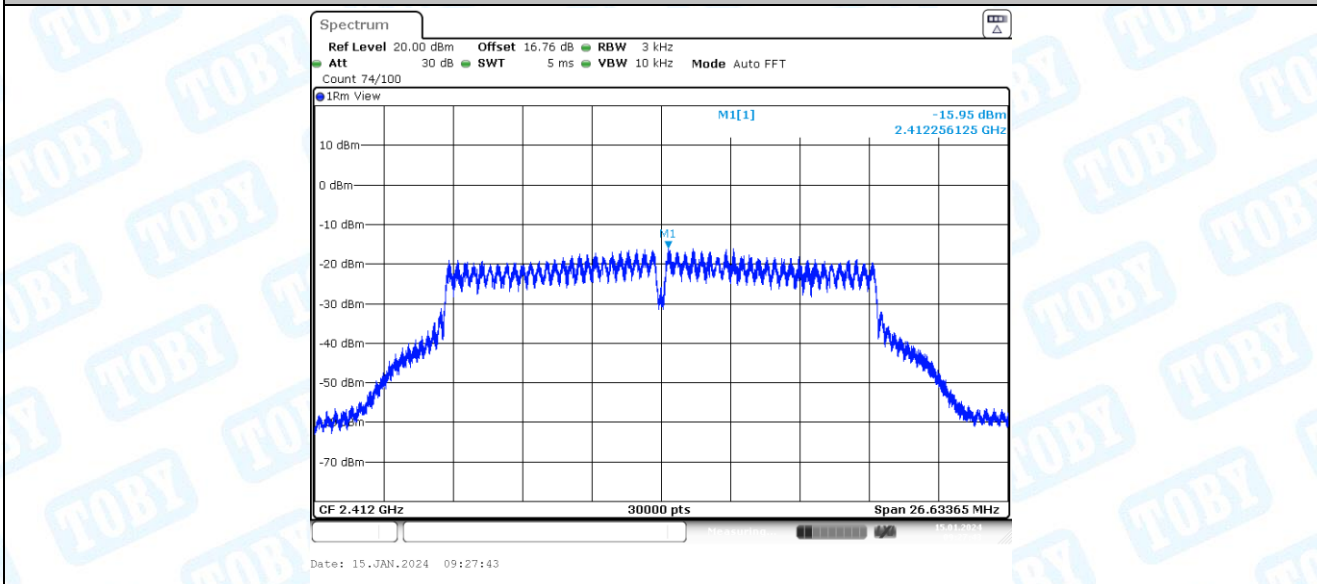
11B-CDD_Ant2_2462



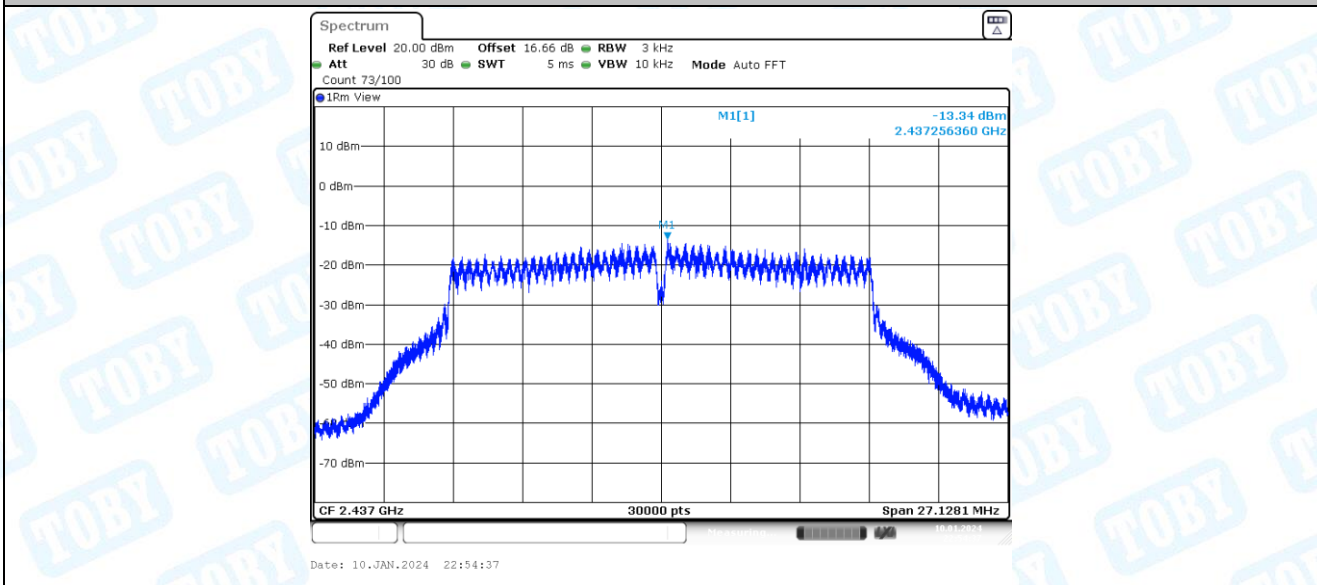
11G-CDD_Ant1_2412



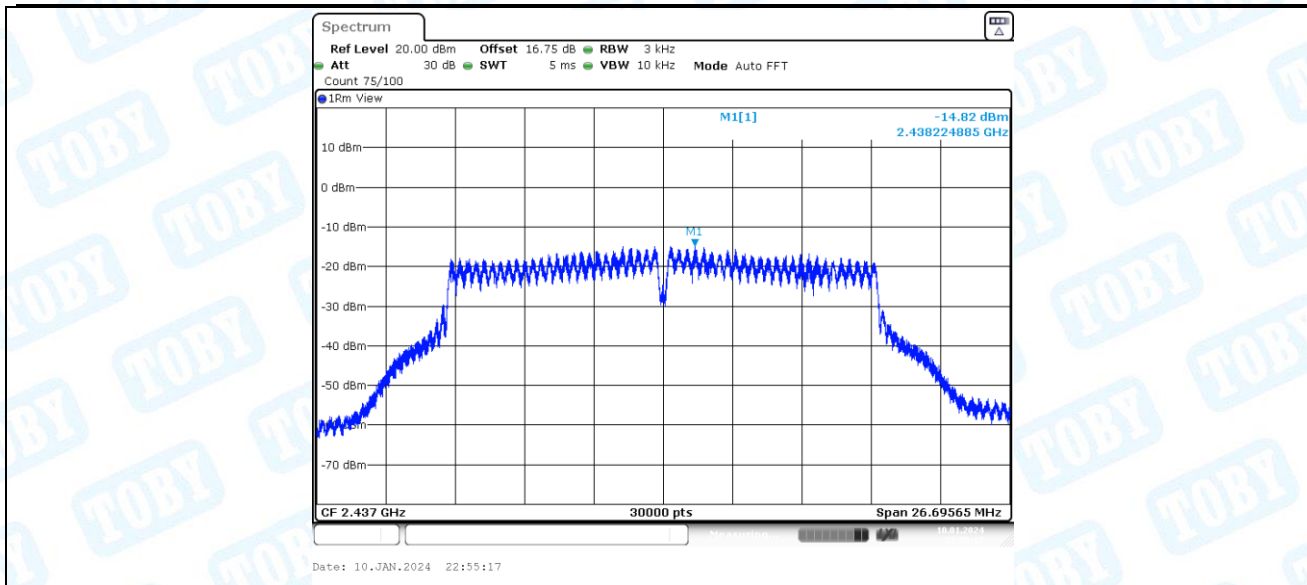
11G-CDD_Ant2_2412



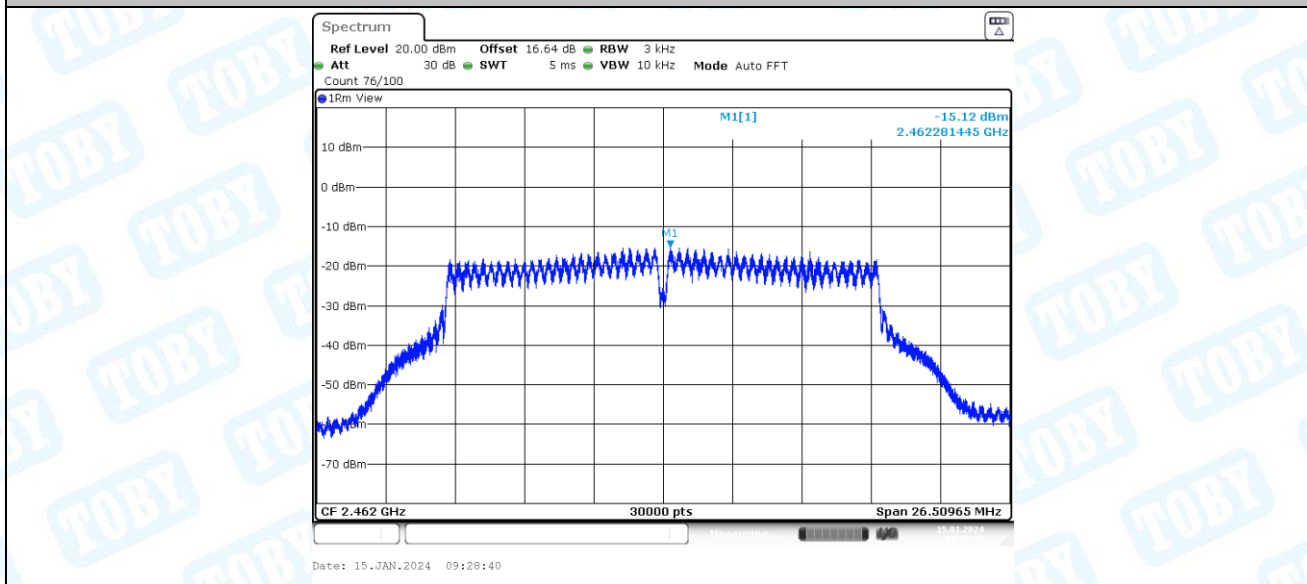
11G-CDD_Ant1_2437



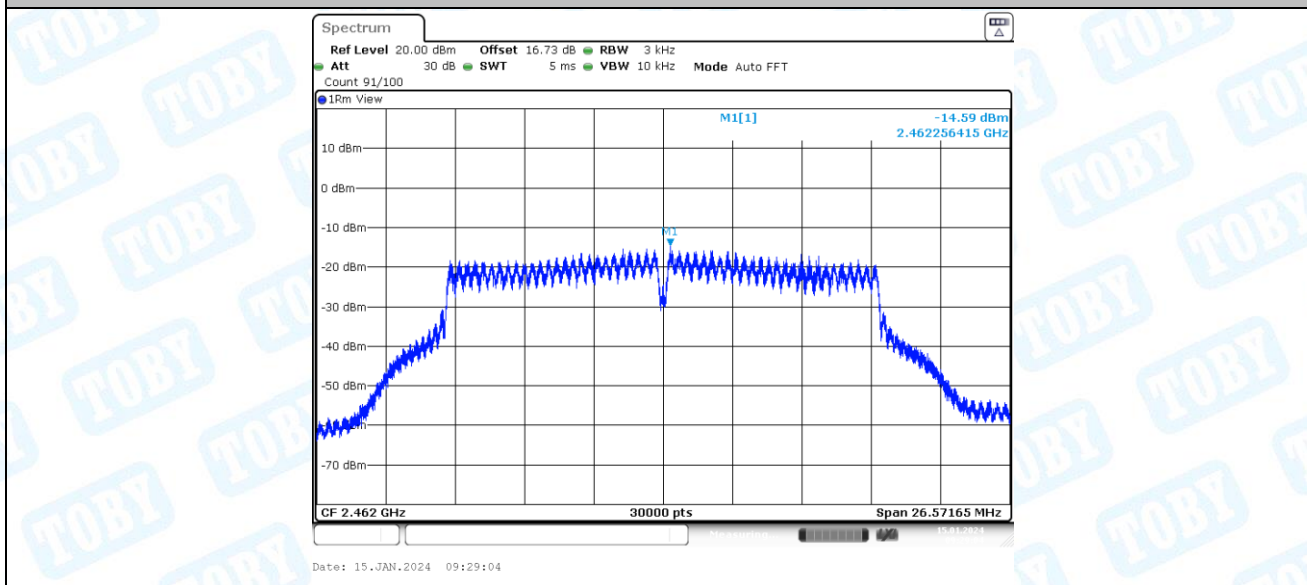
11G-CDD_Ant2_2437



11G-CDD_Ant1_2462



11G-CDD_Ant2_2462



11N20-CDD_Ant1_2412