

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

General Description of EUT	
EUT Name:	Innbox M92
Model:	Innbox M92
Sample ID:	HC-C-202412-0146-01-01
Test Standard:	FCC Part 15.247
Environmental Conditions	
Ambient Temperature:	24.6℃
Ambient Humidity:	51%RH
Test Power Supply:	DC 12V
Test Engineer:	Rick Chen
Note: For a more detailed features description, please refer to the report TBR-C-202412-0146-1.	

Contents

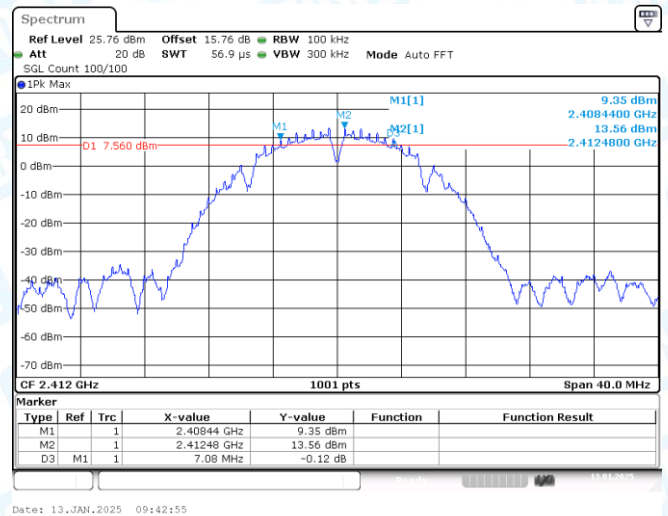
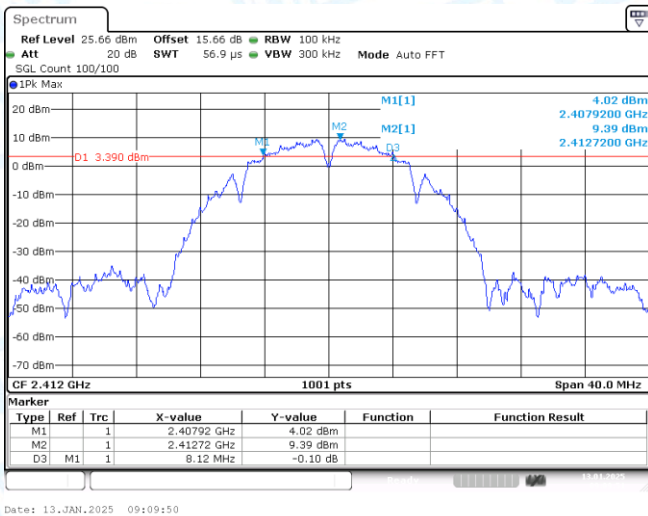
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1: DTS Bandwidth

1.1 Test Result

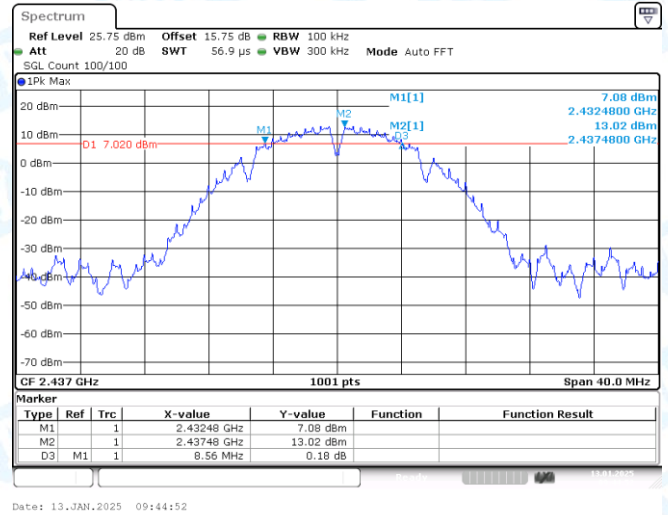
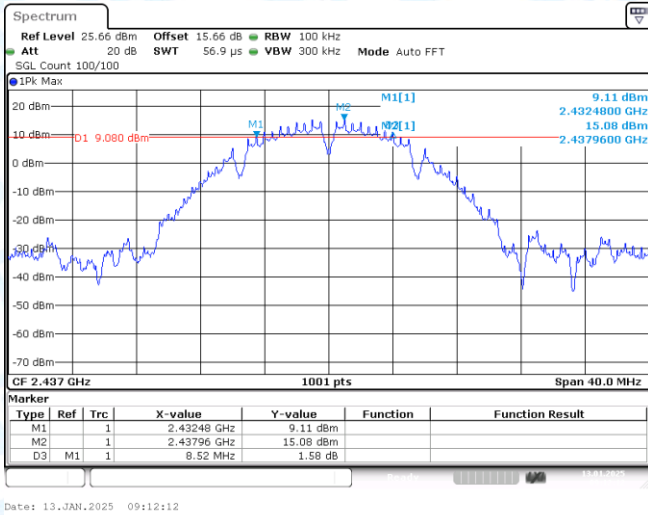
TestMode	Ant.	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.12	2407.92	2416.04	0.5	PASS
11B	Ant2	2412	7.08	2408.44	2415.52	0.5	PASS
11B	Ant1	2437	8.52	2432.48	2441.00	0.5	PASS
11B	Ant2	2437	8.56	2432.48	2441.04	0.5	PASS
11B	Ant1	2462	8.08	2457.92	2466.00	0.5	PASS
11B	Ant2	2462	7.56	2457.96	2465.52	0.5	PASS
11G	Ant1	2412	16.36	2403.80	2420.16	0.5	PASS
11G	Ant2	2412	16.36	2403.80	2420.16	0.5	PASS
11G	Ant1	2437	14.16	2430.08	2444.24	0.5	PASS
11G	Ant2	2437	15.04	2429.48	2444.52	0.5	PASS
11G	Ant1	2462	16.36	2453.80	2470.16	0.5	PASS
11G	Ant2	2462	16.32	2453.80	2470.12	0.5	PASS
11N20-CDD	Ant1	2412	17.04	2403.48	2420.52	0.5	PASS
11N20-CDD	Ant2	2412	17.56	2403.20	2420.76	0.5	PASS
11N20-CDD	Ant1	2437	17.56	2428.20	2445.76	0.5	PASS
11N20-CDD	Ant2	2437	16.80	2428.56	2445.36	0.5	PASS
11N20-CDD	Ant1	2462	16.88	2453.48	2470.36	0.5	PASS
11N20-CDD	Ant2	2462	16.28	2453.84	2470.12	0.5	PASS
11N40-CDD	Ant1	2422	35.20	2404.40	2439.60	0.5	PASS
11N40-CDD	Ant2	2422	35.12	2404.40	2439.52	0.5	PASS
11N40-CDD	Ant1	2437	35.04	2419.48	2454.52	0.5	PASS
11N40-CDD	Ant2	2437	35.28	2419.40	2454.68	0.5	PASS
11N40-CDD	Ant1	2452	35.04	2434.48	2469.52	0.5	PASS
11N40-CDD	Ant2	2452	33.20	2436.32	2469.52	0.5	PASS
11AX20-CDD	Ant1	2412	17.56	2403.44	2421.00	0.5	PASS
11AX20-CDD	Ant2	2412	16.56	2404.40	2420.96	0.5	PASS
11AX20-CDD	Ant1	2437	18.36	2427.92	2446.28	0.5	PASS
11AX20-CDD	Ant2	2437	18.76	2427.52	2446.28	0.5	PASS
11AX20-CDD	Ant1	2462	18.84	2452.52	2471.36	0.5	PASS
11AX20-CDD	Ant2	2462	18.84	2452.56	2471.40	0.5	PASS
11AX40-CDD	Ant1	2422	34.96	2405.76	2440.72	0.5	PASS
11AX40-CDD	Ant2	2422	37.44	2403.12	2440.56	0.5	PASS
11AX40-CDD	Ant1	2437	36.32	2419.40	2455.72	0.5	PASS
11AX40-CDD	Ant2	2437	37.68	2418.12	2455.80	0.5	PASS
11AX40-CDD	Ant1	2452	37.84	2433.04	2470.88	0.5	PASS
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1.2 Test Graphs



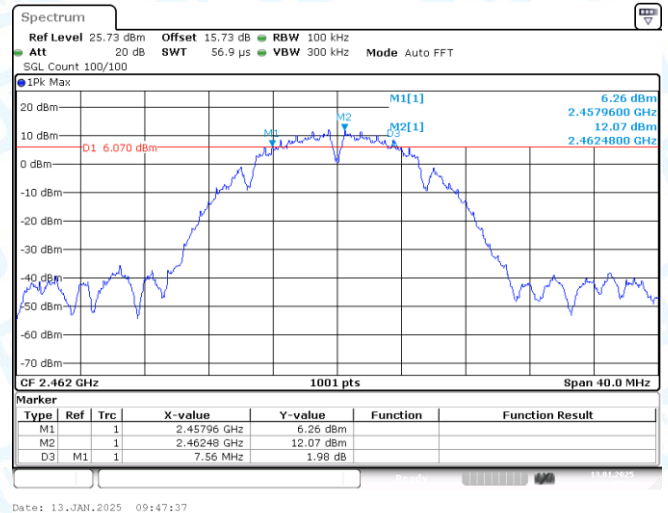
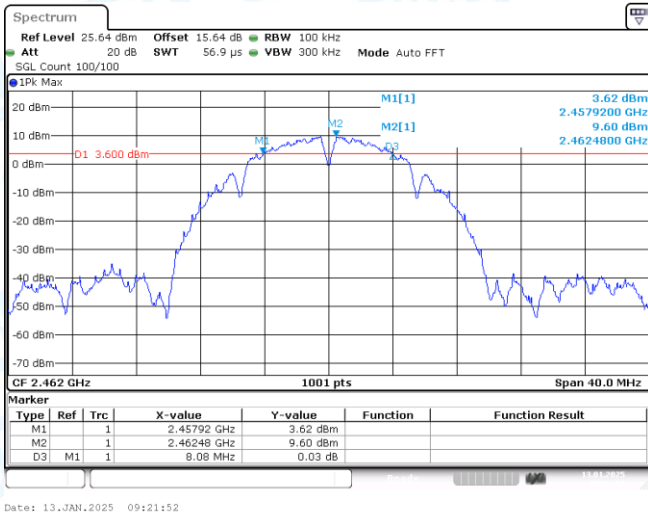
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11B-Ant2-2412-PASS



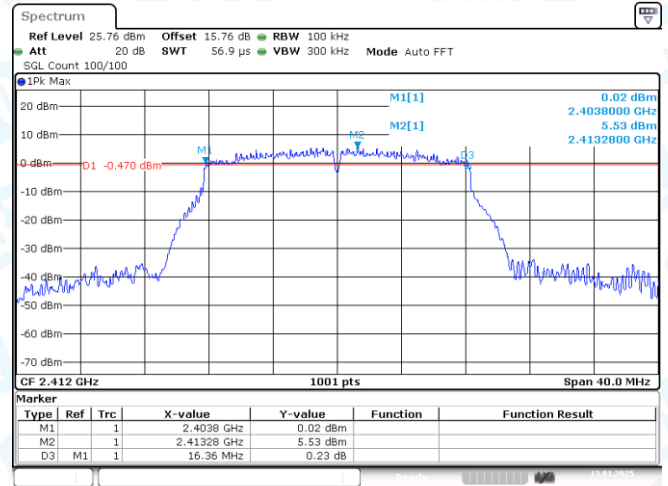
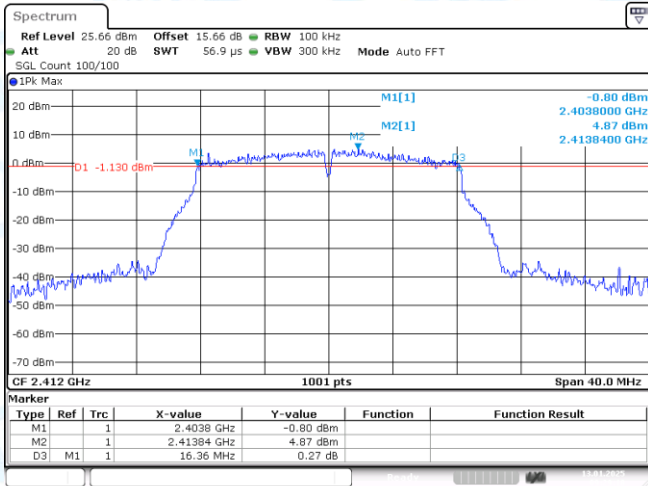
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11B-Ant2-2437-PASS



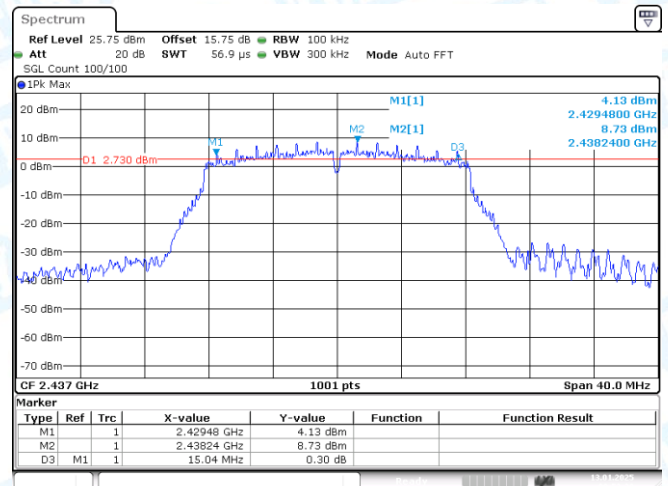
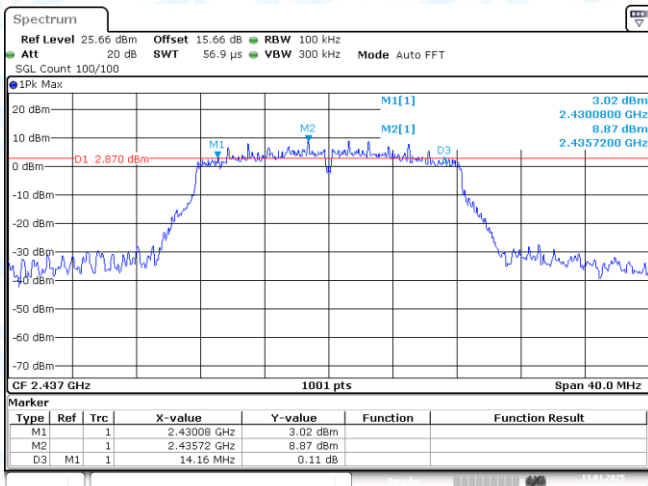
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11B-Ant2-2462-PASS



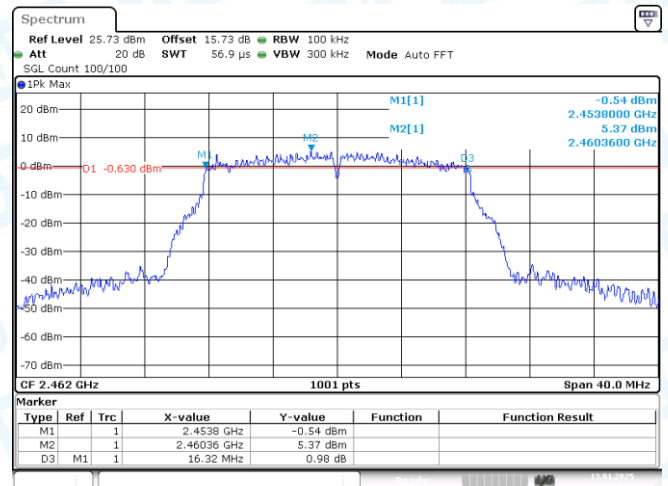
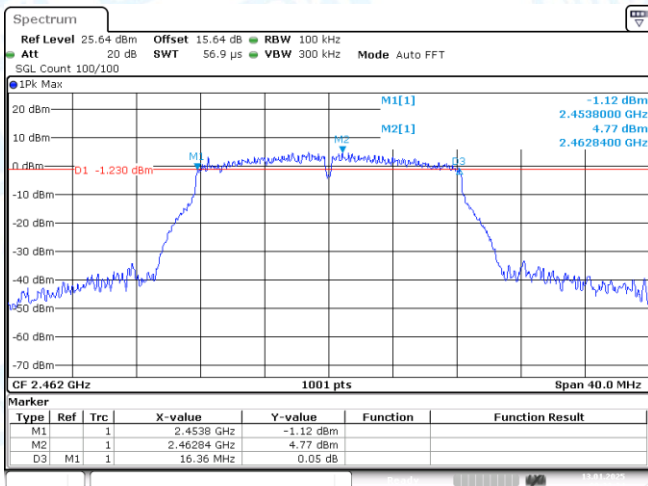
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11G-Ant2-2412-PASS



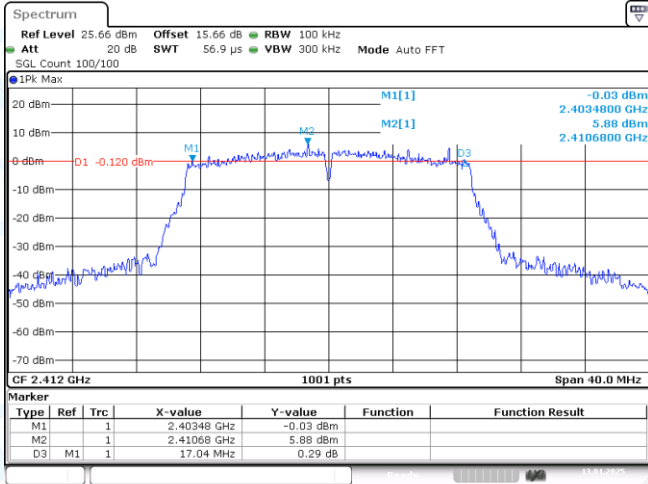
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11G-Ant2-2437-PASS

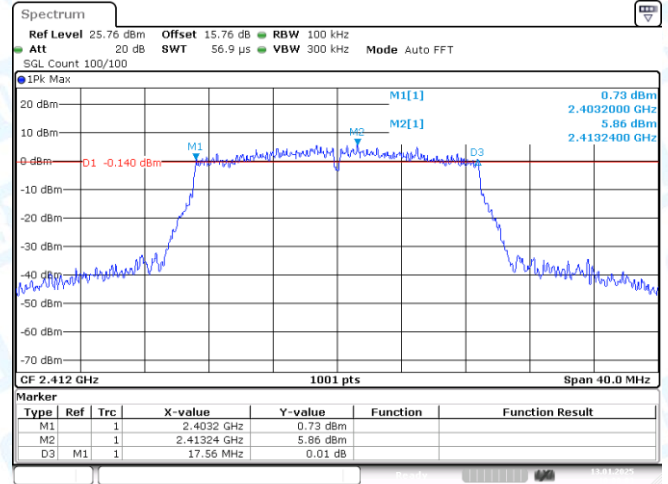


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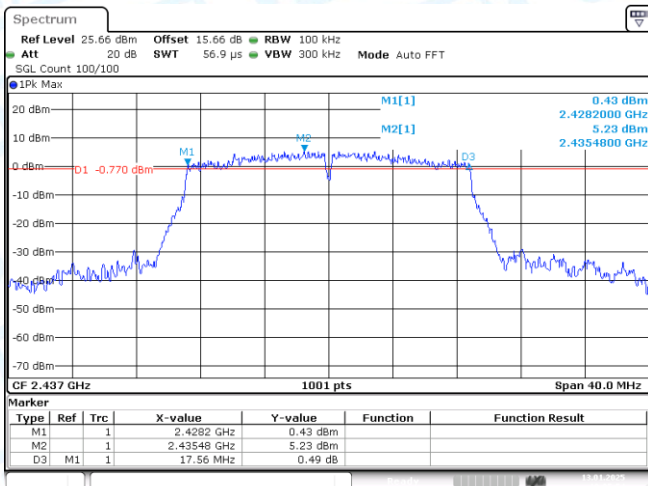
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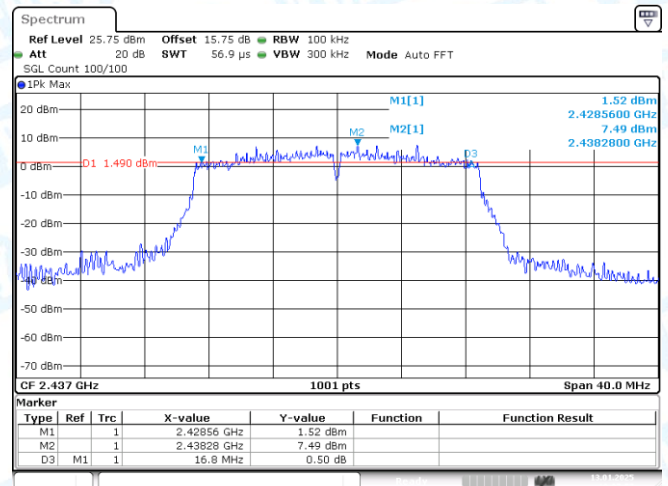
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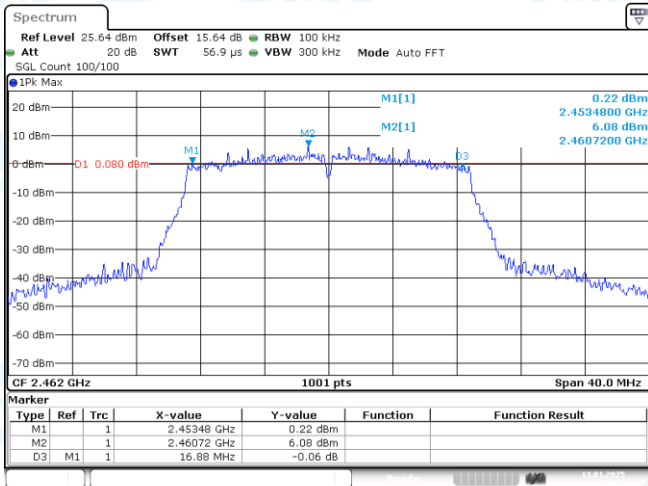
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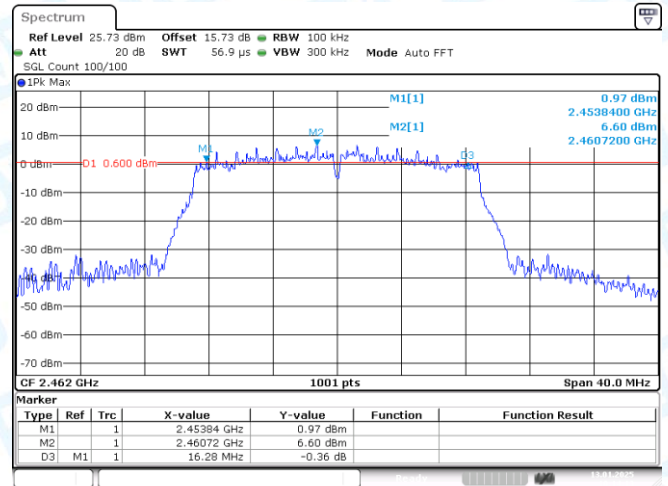
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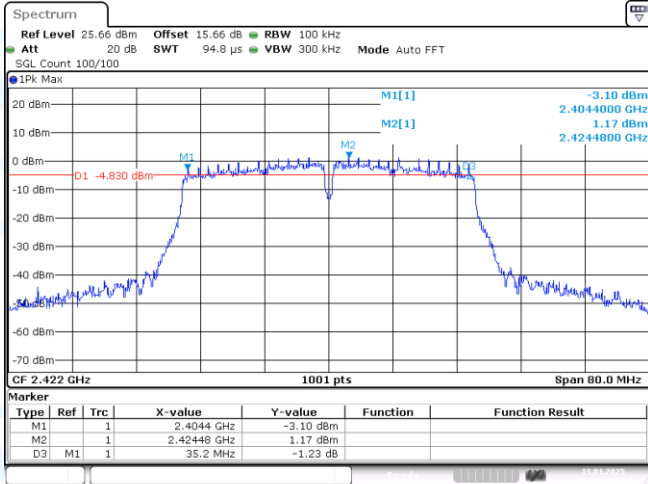
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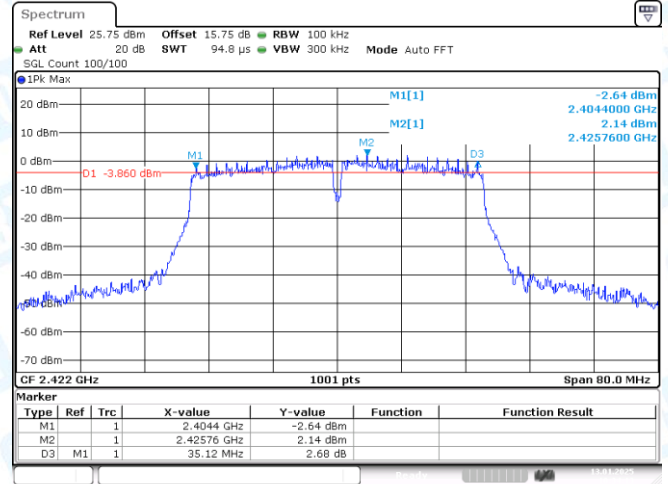
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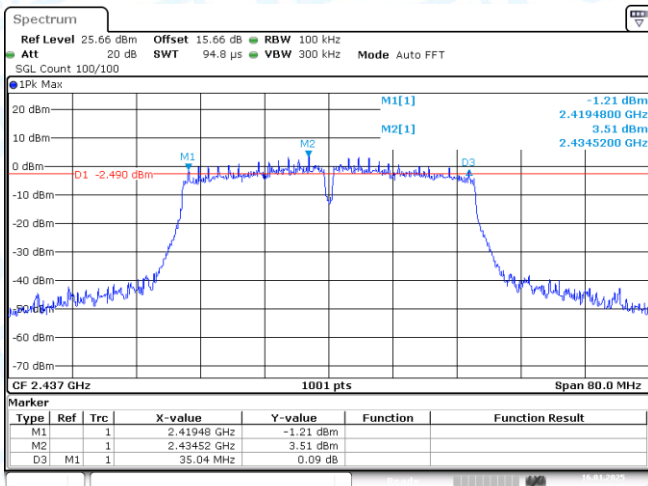
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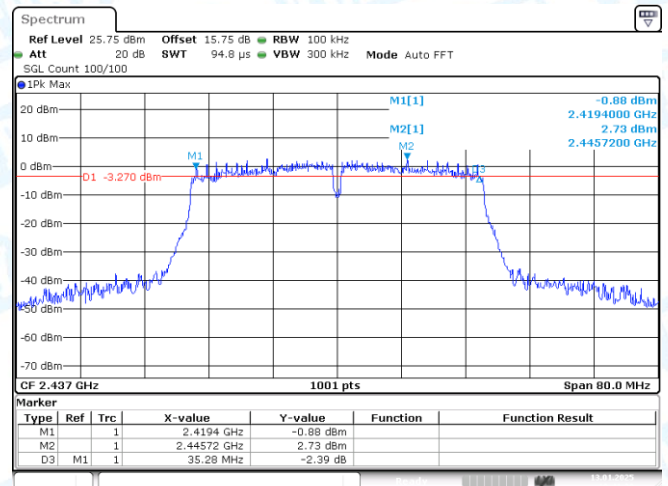
11N40-CDD-Ant1-2422-PASS



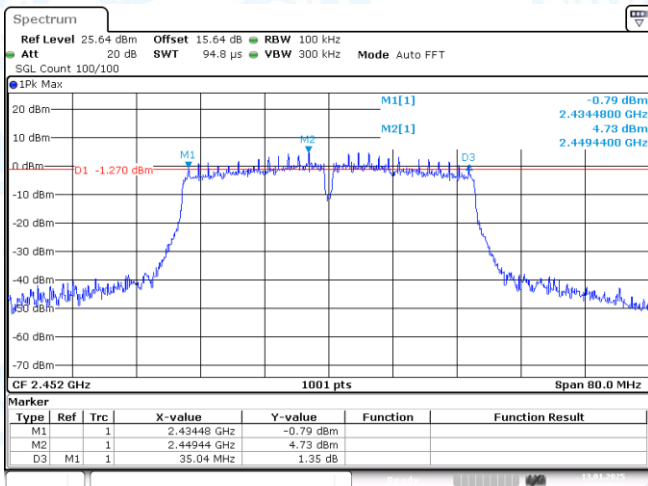
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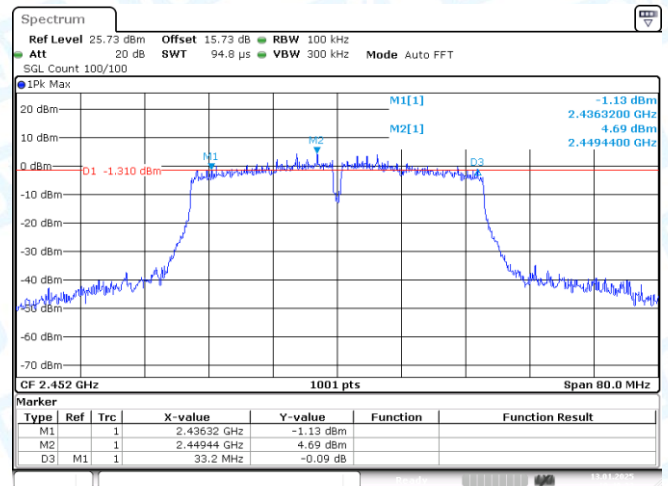
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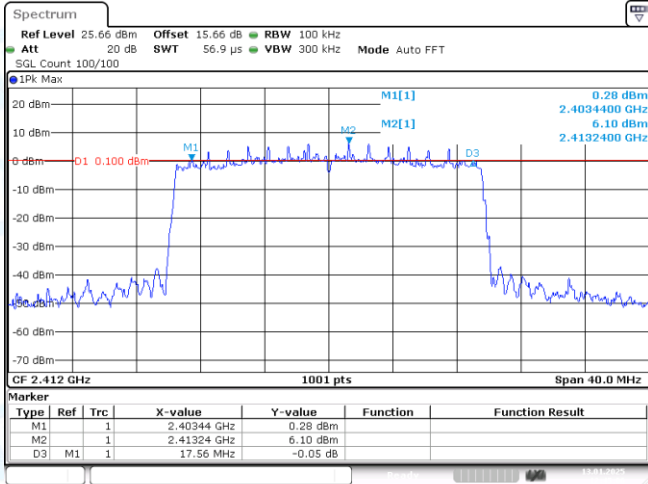
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11N40-CDD-Ant1-2452-PASS

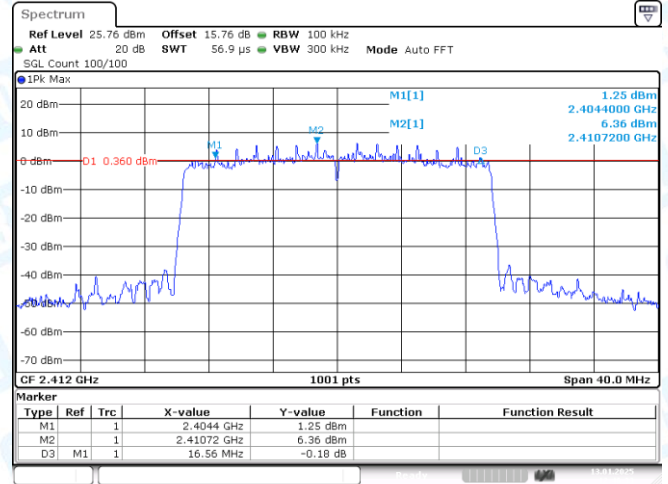


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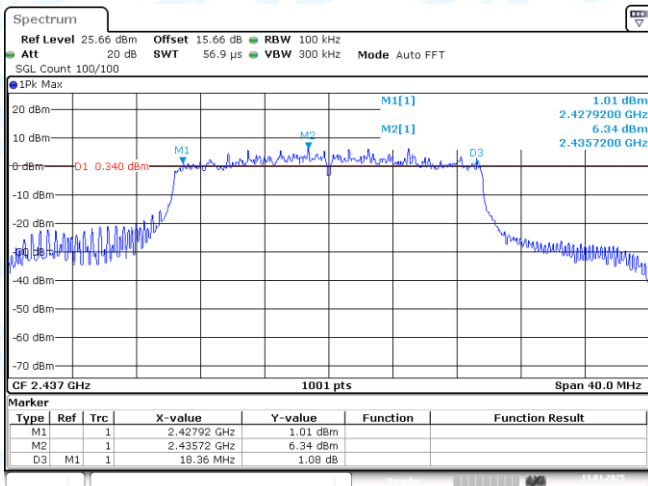
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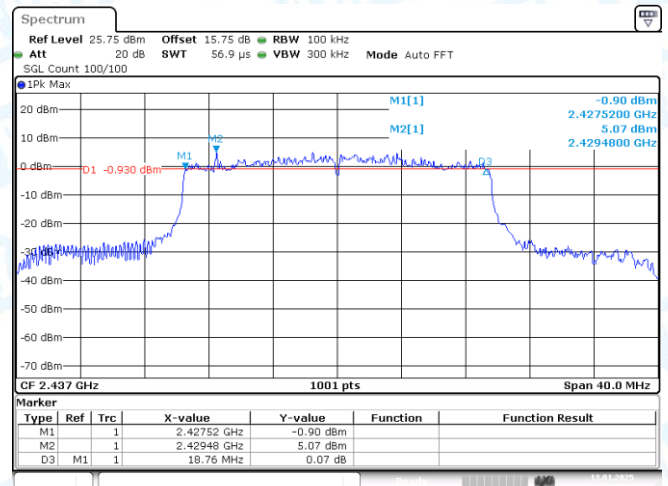
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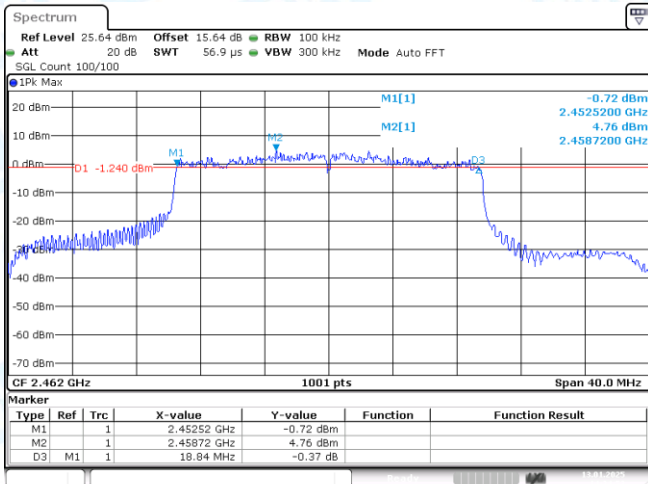
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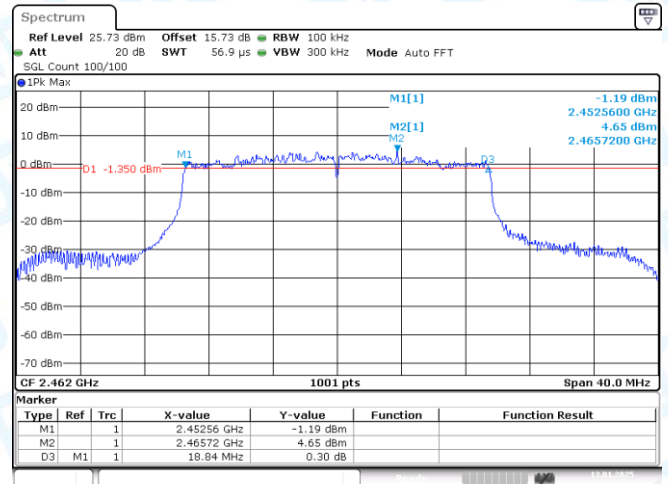
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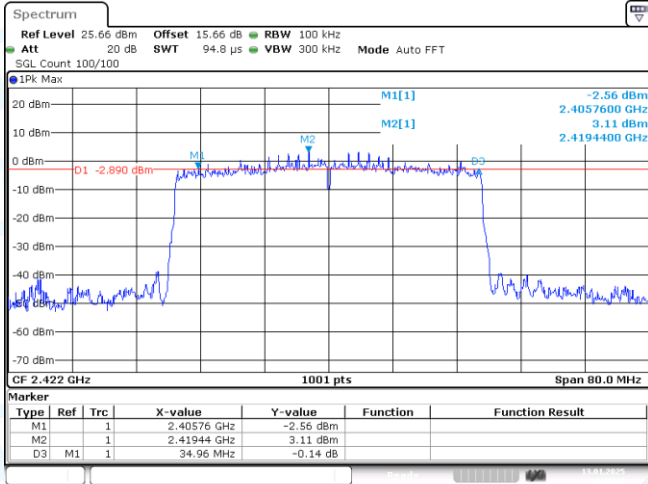
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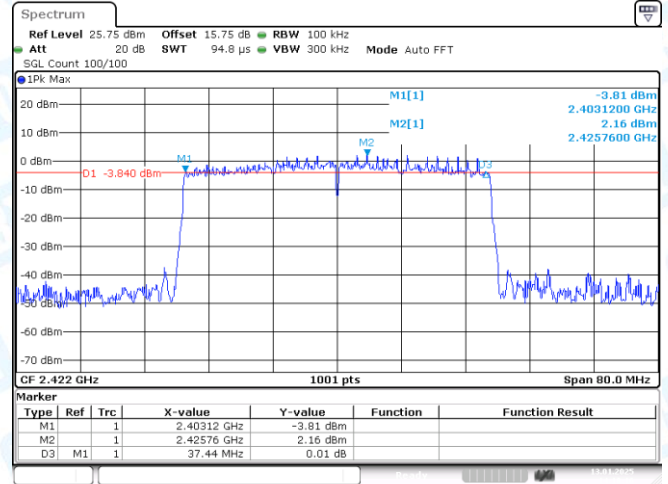


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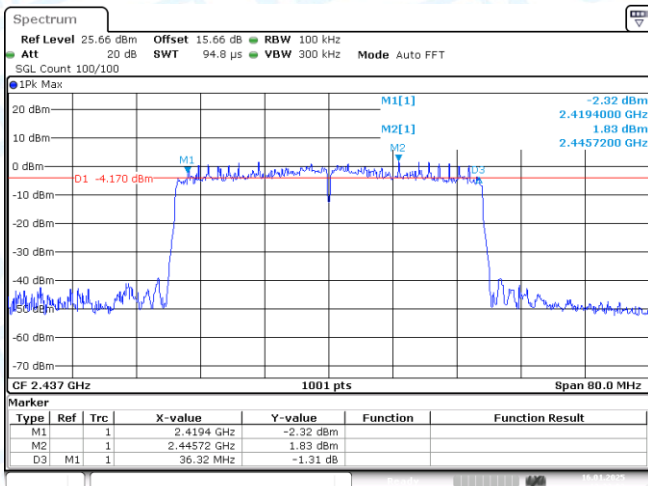
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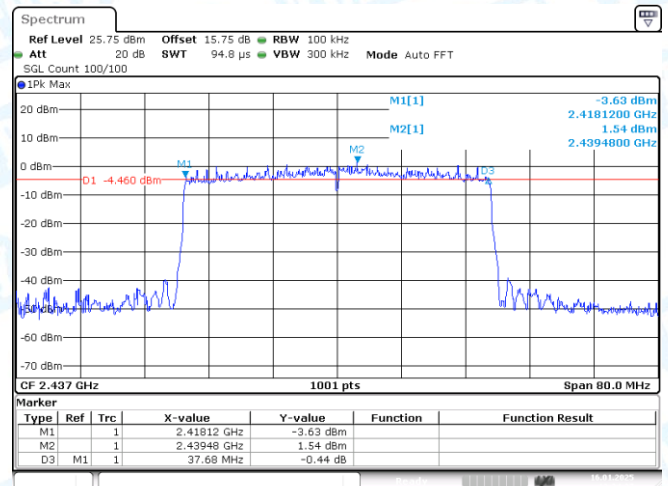
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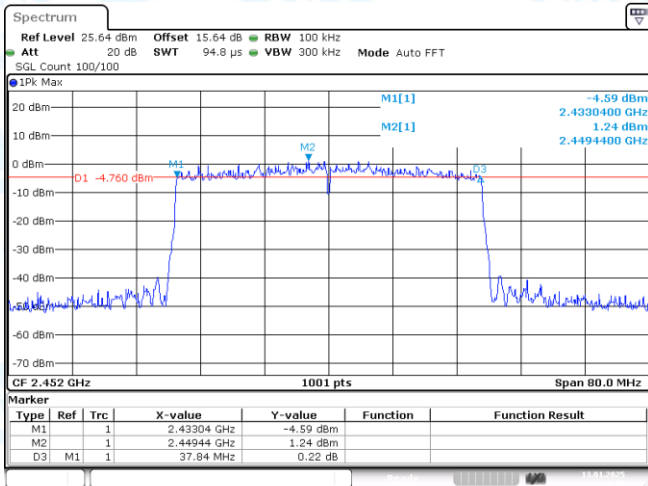
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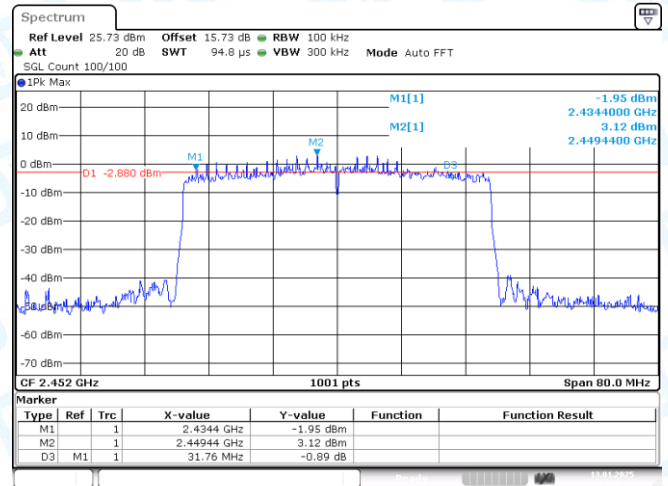
11AX40-CDD-Ant1-2437-PASS



11AX40-CDD-Ant2-2437-PASS



11AX40-CDD-Ant1-2452-PASS



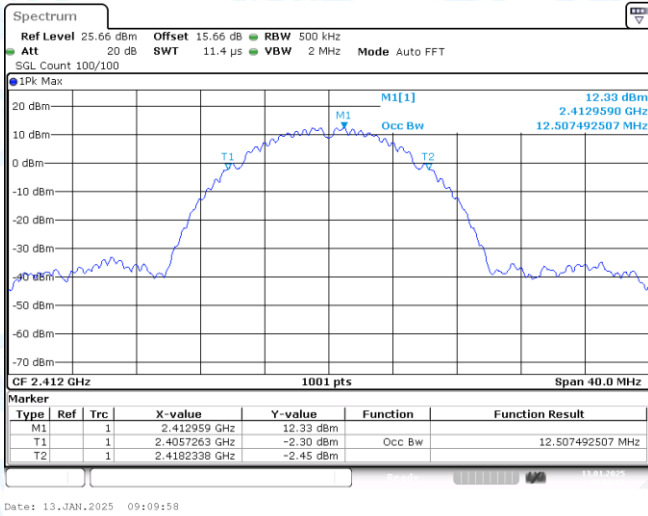
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2: Occupied Channel Bandwidth

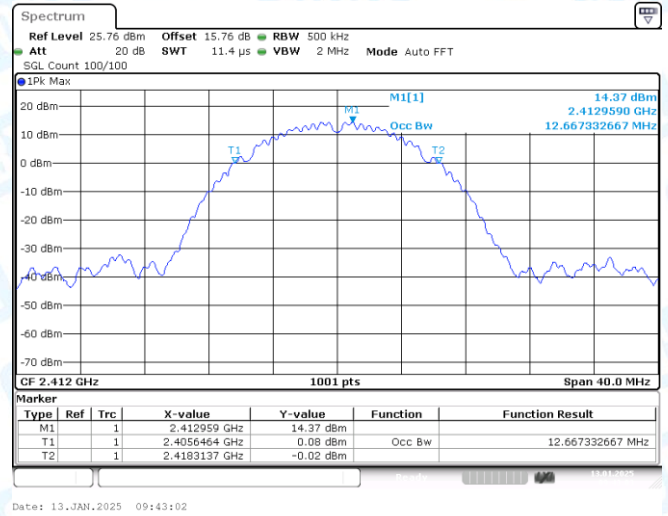
2.1 Test Result

TestMode	Ant.	Channel Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.507	2405.7263	2418.2338	---	---
11B	Ant2	2412	12.667	2405.6464	2418.3137	---	---
11B	Ant1	2437	13.666	2430.2068	2443.8731	---	---
11B	Ant2	2437	13.027	2430.4865	2443.5135	---	---
11B	Ant1	2462	12.507	2455.7263	2468.2338	---	---
11B	Ant2	2462	12.667	2455.6464	2468.3137	---	---
11G	Ant1	2412	17.023	2403.4486	2420.4715	---	---
11G	Ant2	2412	16.743	2403.4885	2420.2318	---	---
11G	Ant1	2437	17.143	2428.6484	2445.7912	---	---
11G	Ant2	2437	16.823	2428.6883	2445.5115	---	---
11G	Ant1	2462	17.542	2453.1688	2470.7113	---	---
11G	Ant2	2462	17.103	2453.2488	2470.3516	---	---
11N20-CDD	Ant1	2412	17.982	2403.0889	2421.0709	---	---
11N20-CDD	Ant2	2412	17.742	2403.1688	2420.9111	---	---
11N20-CDD	Ant1	2437	17.662	2428.1688	2445.8312	---	---
11N20-CDD	Ant2	2437	17.982	2427.9690	2445.9510	---	---
11N20-CDD	Ant1	2462	17.822	2453.0490	2470.8711	---	---
11N20-CDD	Ant2	2462	17.662	2453.1688	2470.8312	---	---
11N40-CDD	Ant1	2422	36.044	2404.0180	2440.0619	---	---
11N40-CDD	Ant2	2422	36.044	2403.9381	2439.9820	---	---
11N40-CDD	Ant1	2437	36.044	2418.8581	2454.9021	---	---
11N40-CDD	Ant2	2437	36.204	2419.0180	2455.2218	---	---
11N40-CDD	Ant1	2452	36.204	2433.9381	2470.1419	---	---
11N40-CDD	Ant2	2452	35.964	2433.9381	2469.9021	---	---
11AX20-CDD	Ant1	2412	18.821	2402.5694	2421.3906	---	---
11AX20-CDD	Ant2	2412	18.941	2402.5295	2421.4705	---	---
11AX20-CDD	Ant1	2437	19.181	2427.3297	2446.5105	---	---
11AX20-CDD	Ant2	2437	19.101	2427.4496	2446.5504	---	---
11AX20-CDD	Ant1	2462	19.141	2452.4496	2471.5904	---	---
11AX20-CDD	Ant2	2462	18.941	2452.4496	2471.3906	---	---
11AX40-CDD	Ant1	2422	37.722	2403.2188	2440.9411	---	---
11AX40-CDD	Ant2	2422	37.722	2403.1389	2440.8611	---	---
11AX40-CDD	Ant1	2437	37.642	2418.2188	2455.8611	---	---
11AX40-CDD	Ant2	2437	37.882	2418.1389	2456.0210	---	---
11AX40-CDD	Ant1	2452	37.802	2433.0589	2470.8611	---	---
11AX40-CDD	Ant2	2452	37.722	2433.2188	2470.9411	---	---

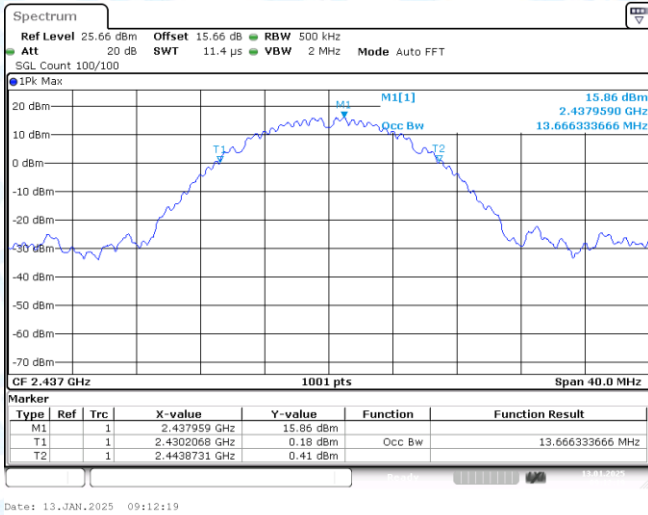
2.2 Test Graphs



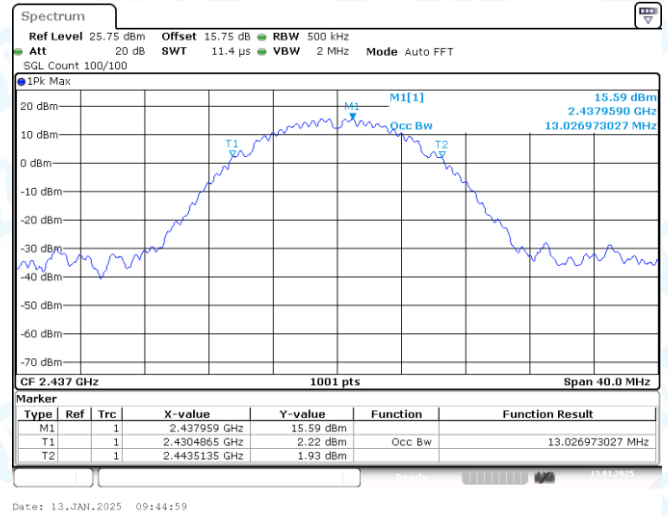
11B-Ant1-2412



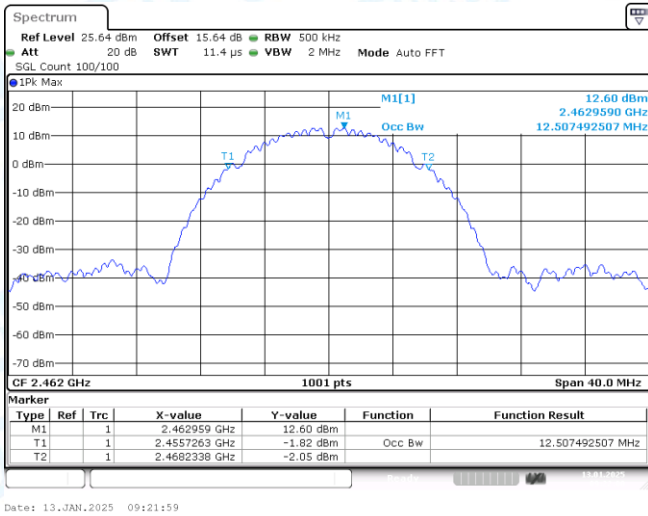
11B-Ant2-2412



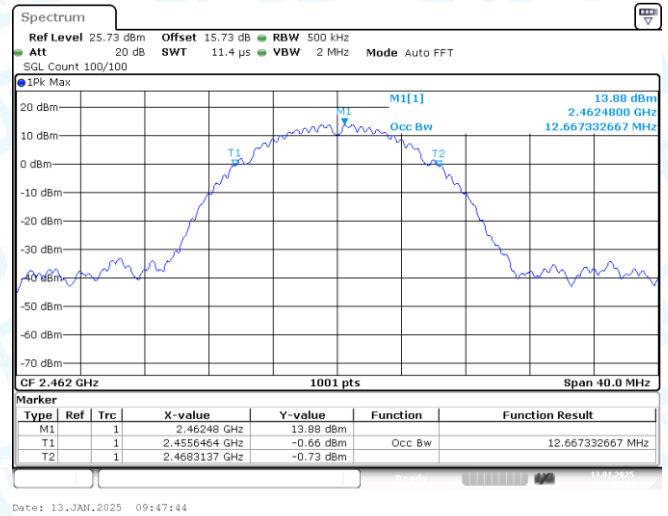
11B-Ant1-2437



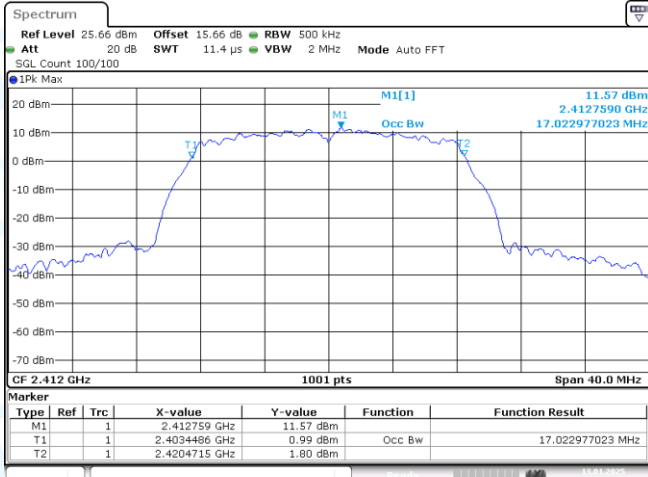
11B-Ant2-2437



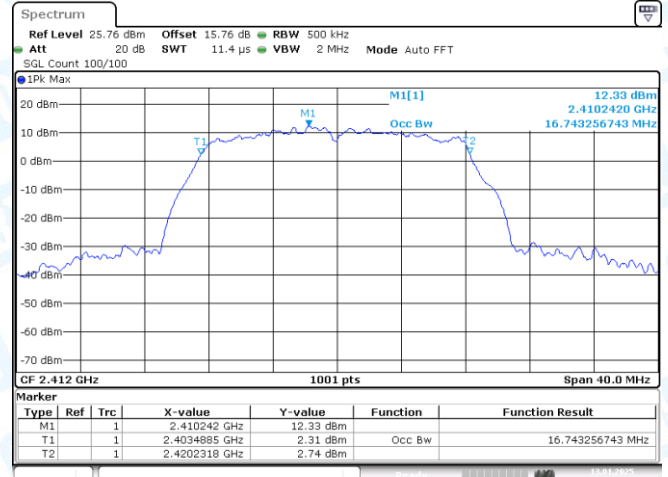
11B-Ant1-2462



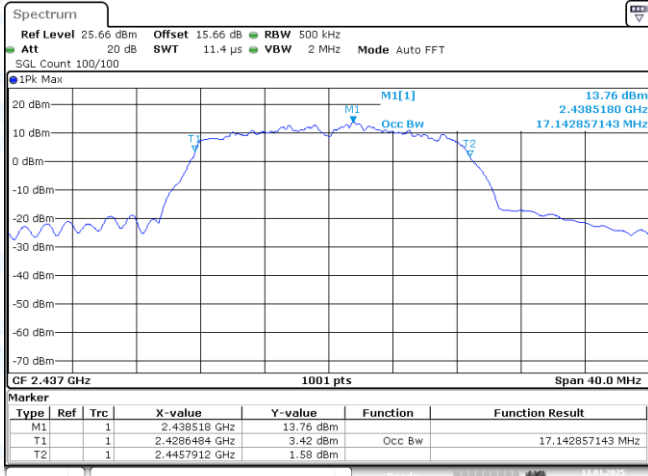
11B-Ant2-2462



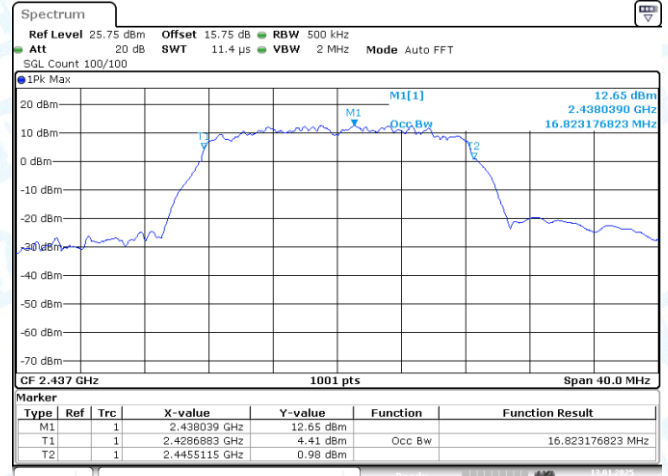
11G-Ant1-2412



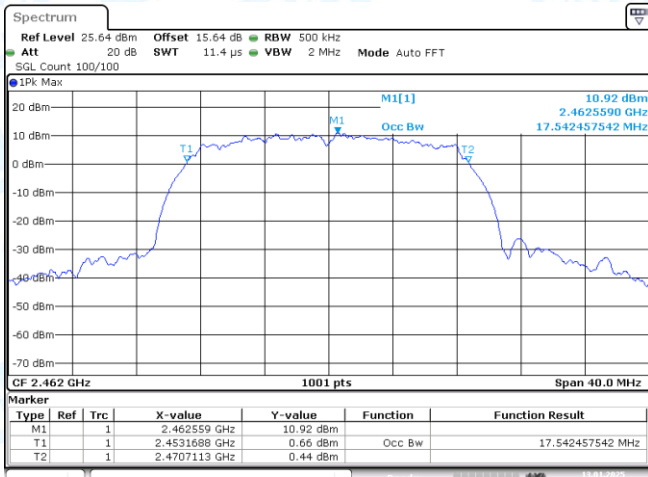
11G-Ant2-2412



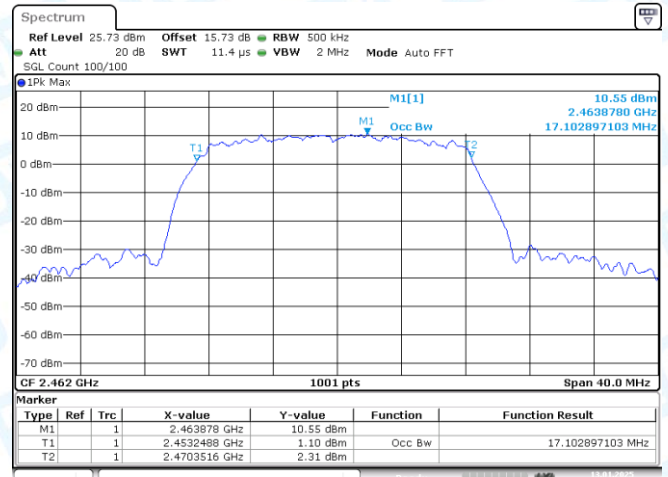
11G-Ant1-2437



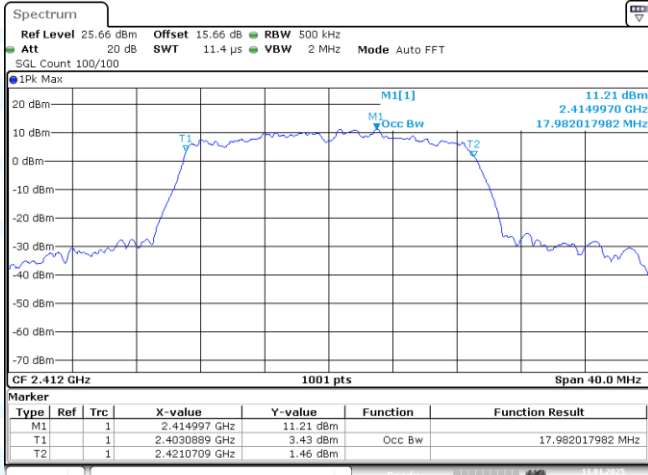
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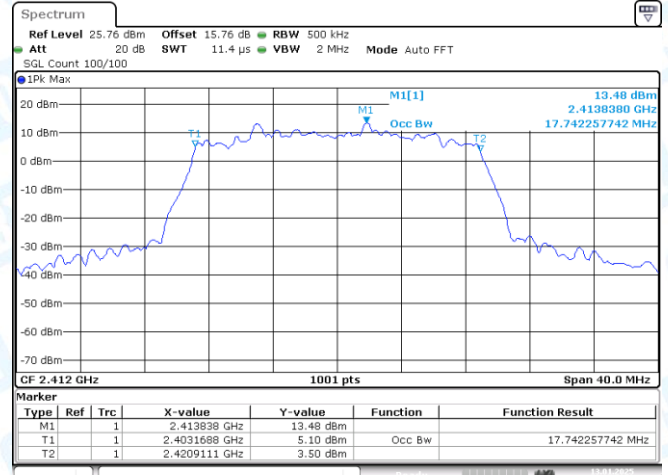
11G-Ant1-2462



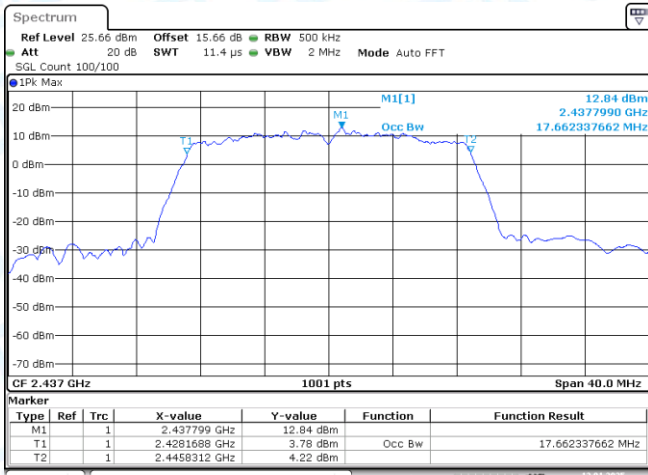
11G-Ant2-2462



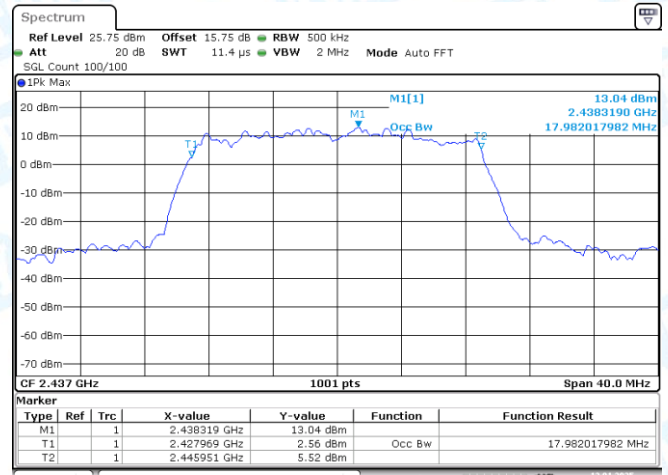
11N20-CDD-Ant1-2412



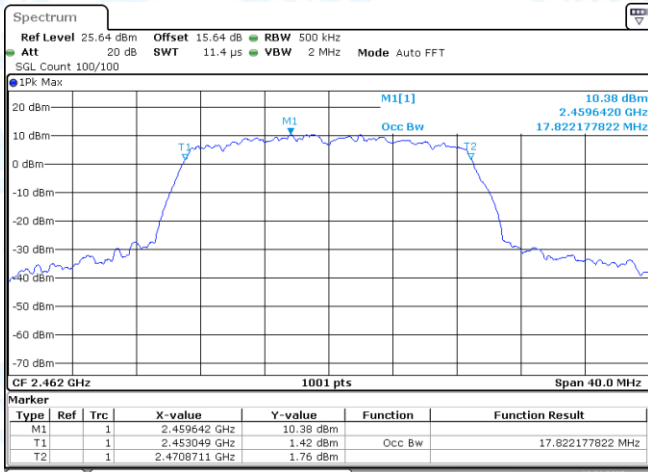
11N20-CDD-Ant2-2412



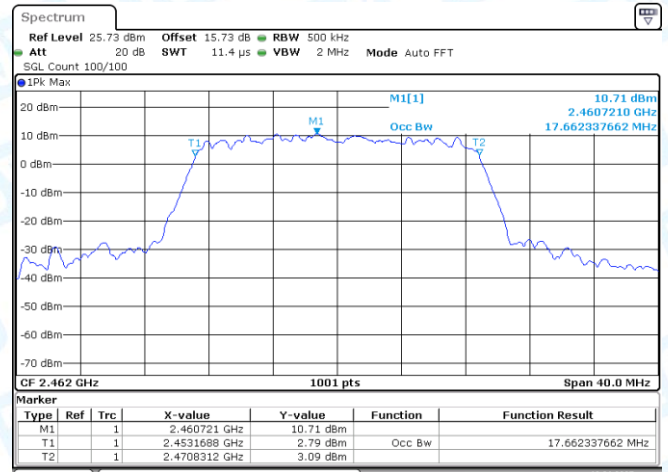
11N20-CDD-Ant1-2437



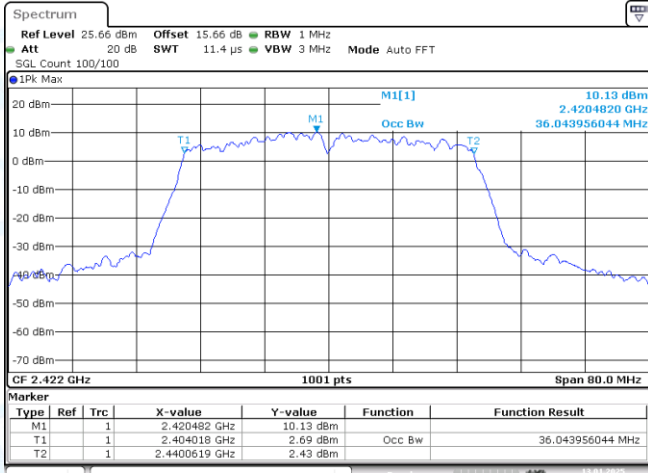
11N20-CDD-Ant2-2437



11N20-CDD-Ant1-2462

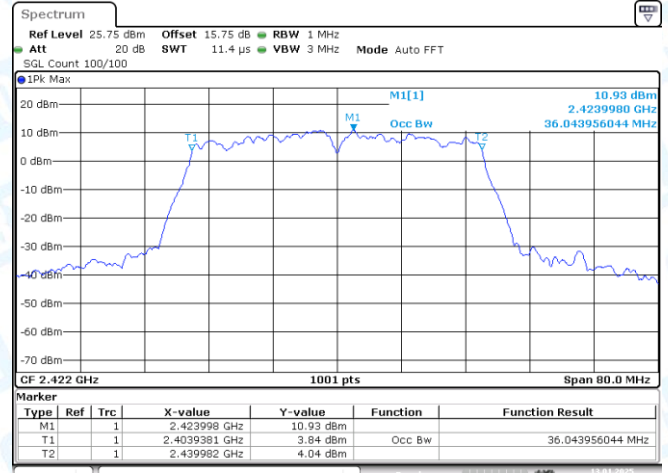


11N20-CDD-Ant2-2462



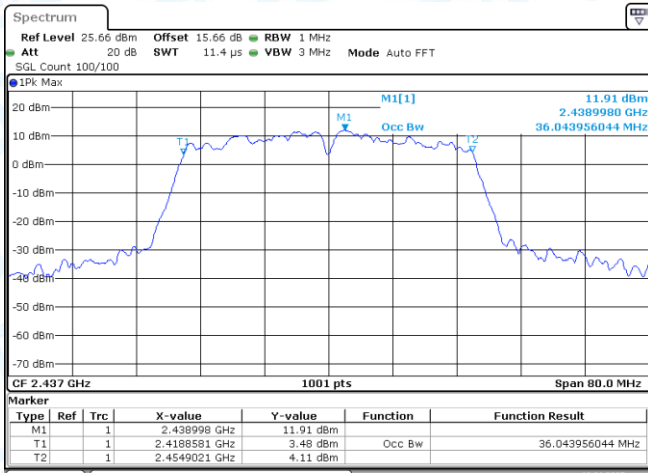
Date: 13.JAN.2025 10:32:37

11N40-CDD-Ant1-2422



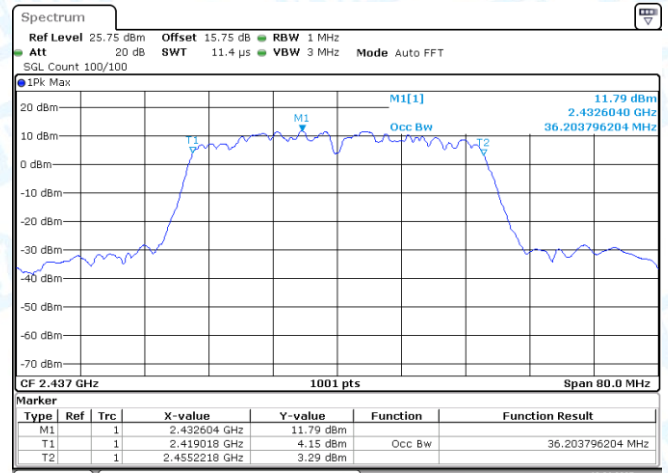
Date: 13.JAN.2025 10:34:21

11N40-CDD-Ant2-2422



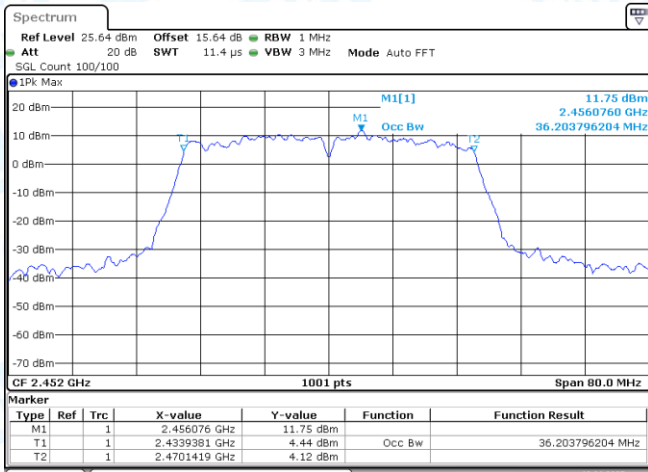
Date: 13.JAN.2025 10:39:35

11N40-CDD-Ant1-2437



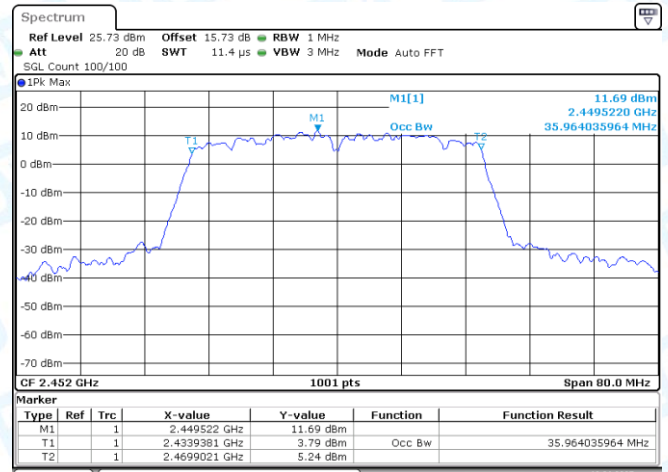
Date: 13.JAN.2025 10:41:39

11N40-CDD-Ant2-2437



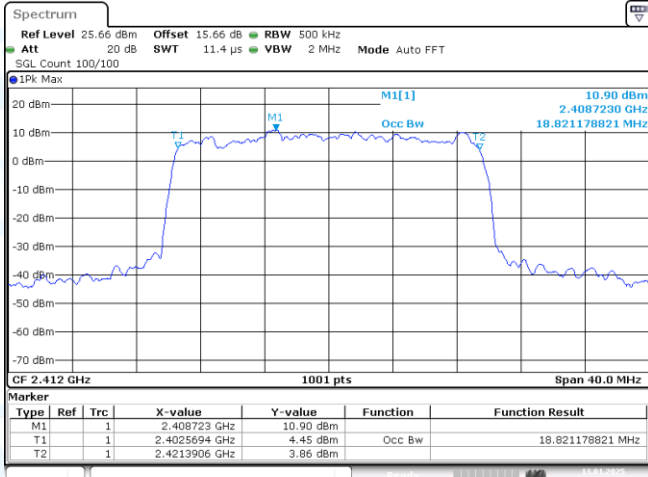
Date: 13.JAN.2025 10:48:06

11N40-CDD-Ant1-2452



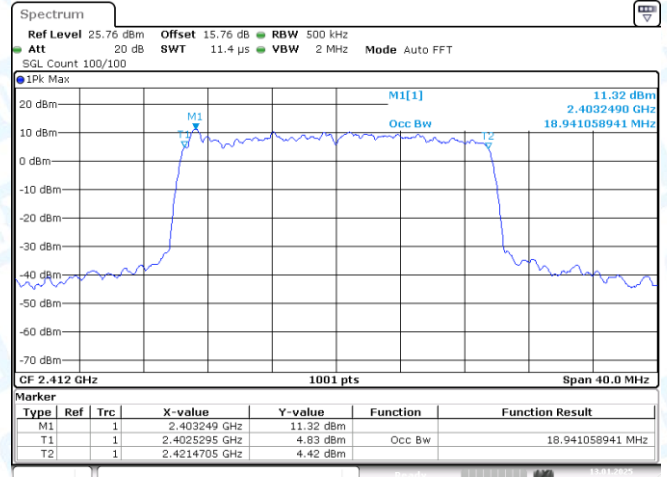
Date: 13.JAN.2025 10:49:41

11N40-CDD-Ant2-2452



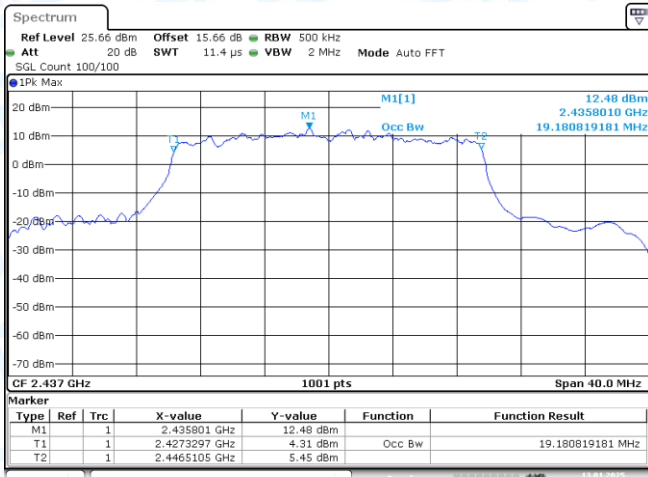
Date: 13.JAN.2025 12:45:14

11AX20-CDD-Ant1-2412



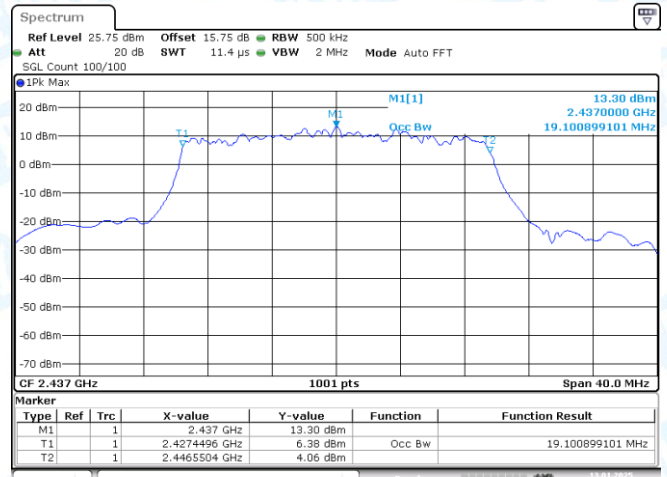
Date: 13.JAN.2025 12:46:41

11AX20-CDD-Ant2-2412



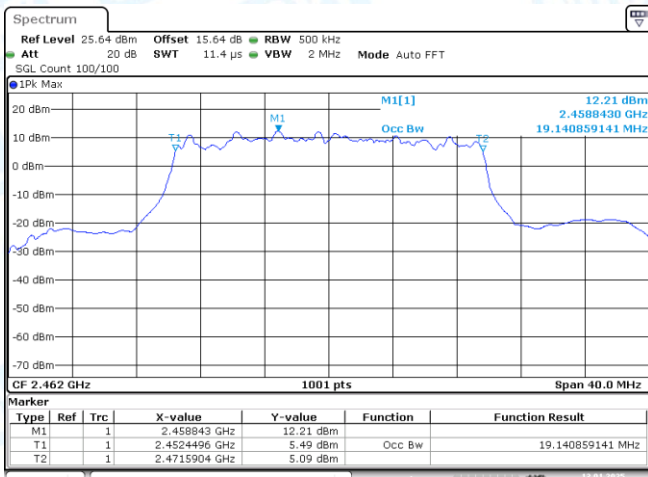
Date: 13.JAN.2025 14:03:50

11AX20-CDD-Ant1-2437



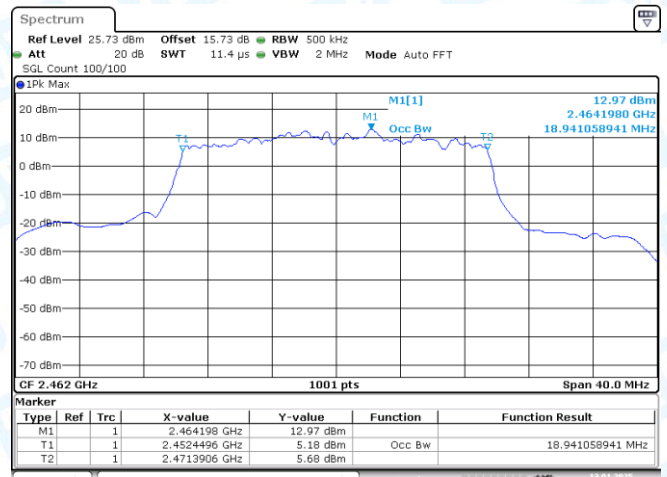
Date: 13.JAN.2025 14:05:19

11AX20-CDD-Ant2-2437



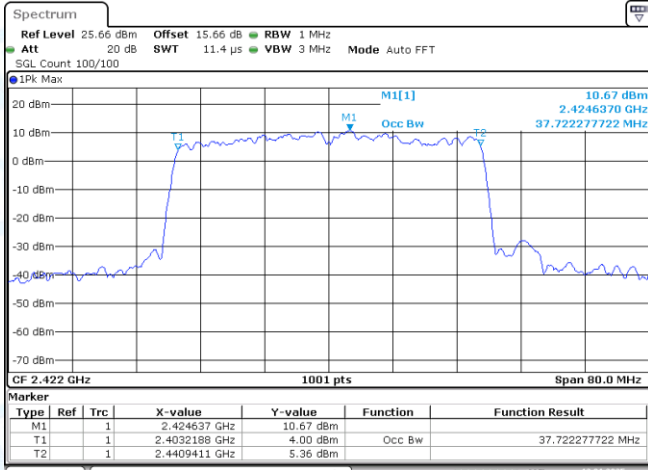
Date: 13.JAN.2025 14:34:59

11AX20-CDD-Ant1-2462



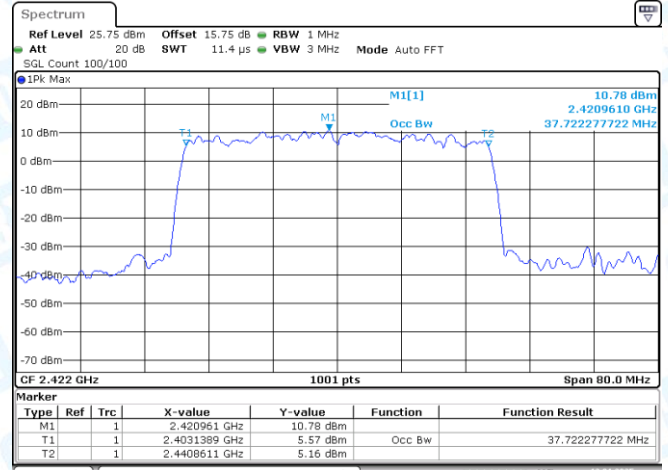
Date: 13.JAN.2025 14:37:05

11AX20-CDD-Ant2-2462



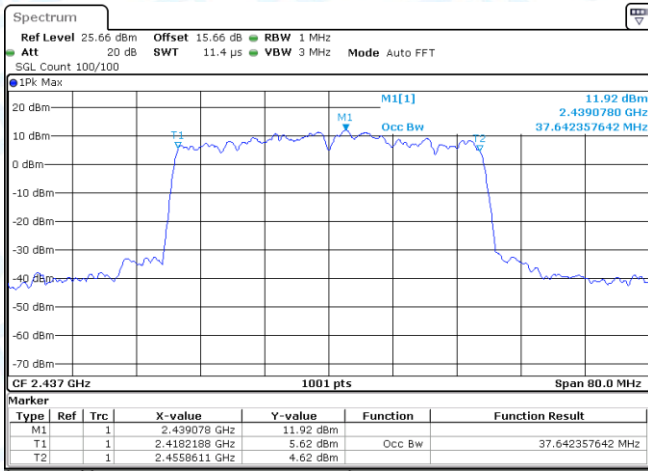
Date: 13.JAN.2025 14:16:51

11AX40-CDD-Ant1-2422



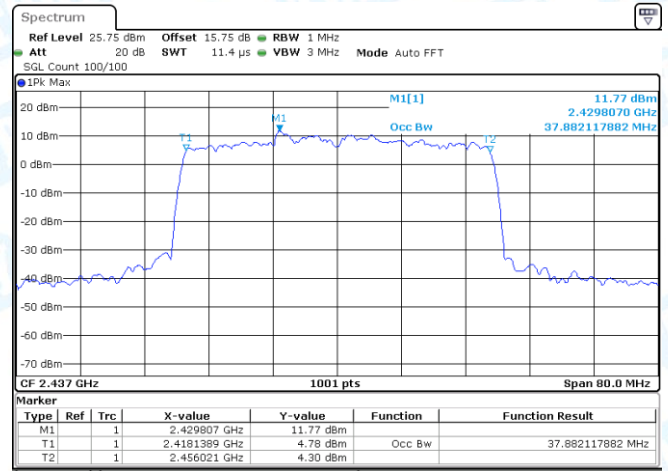
Date: 13.JAN.2025 14:18:26

11AX40-CDD-Ant2-2422



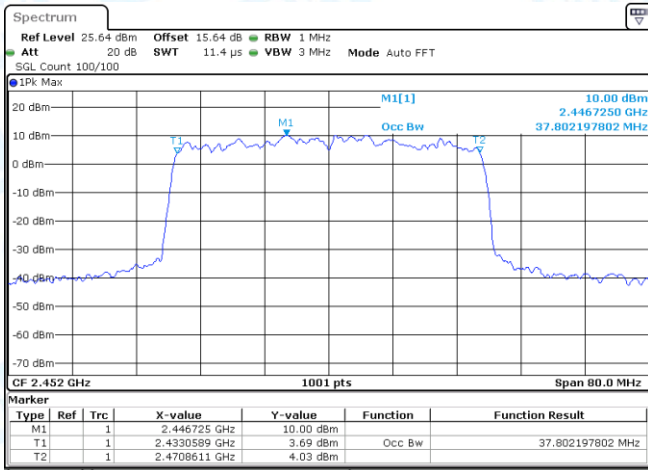
Date: 16.JAN.2025 12:33:13

11AX40-CDD-Ant1-2437



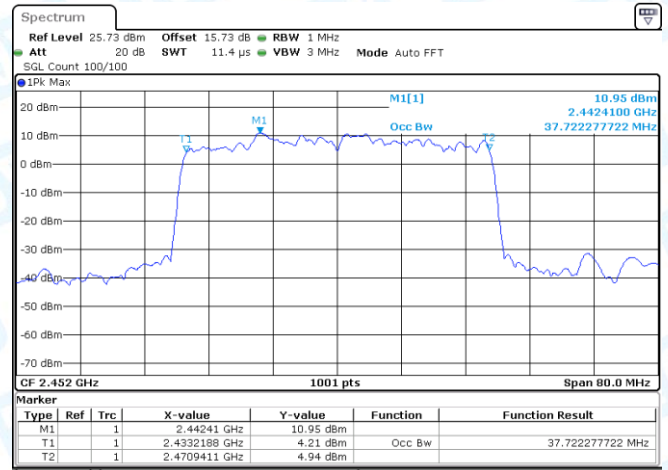
Date: 16.JAN.2025 12:34:46

11AX40-CDD-Ant2-2437



Date: 13.JAN.2025 14:26:41

11AX40-CDD-Ant1-2452



Date: 13.JAN.2025 14:28:39

11AX40-CDD-Ant2-2452

3: Maximum conducted output power

3.1 Test Result Average

Test Mode	Ant.	Frequency [MHz]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	19.90	≤30.00	PASS
11B	Ant2	2412	19.92	≤30.00	PASS
11B	Ant1	2437	20.21	≤30.00	PASS
11B	Ant2	2437	20.80	≤30.00	PASS
11B	Ant1	2462	19.23	≤30.00	PASS
11B	Ant2	2462	20.09	≤30.00	PASS
11G	Ant1	2412	18.19	≤30.00	PASS
11G	Ant2	2412	18.62	≤30.00	PASS
11G	Ant1	2437	18.83	≤30.00	PASS
11G	Ant2	2437	18.66	≤30.00	PASS
11G	Ant1	2462	18.01	≤30.00	PASS
11G	Ant2	2462	18.18	≤30.00	PASS
11N20-CDD	Ant1	2412	17.56	≤30.00	PASS
11N20-CDD	Ant2	2412	18.07	≤30.00	PASS
11N20-CDD	total	2412	20.83	≤30.00	PASS
11N20-CDD	Ant1	2437	17.51	≤30.00	PASS
11N20-CDD	Ant2	2437	17.64	≤30.00	PASS
11N20-CDD	total	2437	20.59	≤30.00	PASS
11N20-CDD	Ant1	2462	17.48	≤30.00	PASS
11N20-CDD	Ant2	2462	17.75	≤30.00	PASS
11N20-CDD	total	2462	20.63	≤30.00	PASS
11N40-CDD	Ant1	2422	16.15	≤30.00	PASS
11N40-CDD	Ant2	2422	16.55	≤30.00	PASS
11N40-CDD	total	2422	19.36	≤30.00	PASS
11N40-CDD	Ant1	2437	17.27	≤30.00	PASS
11N40-CDD	Ant2	2437	17.57	≤30.00	PASS
11N40-CDD	total	2437	20.43	≤30.00	PASS
11N40-CDD	Ant1	2452	17.48	≤30.00	PASS
11N40-CDD	Ant2	2452	17.54	≤30.00	PASS
11N40-CDD	total	2452	20.52	≤30.00	PASS
11AX20-CDD	Ant1	2412	16.83	≤30.00	PASS
11AX20-CDD	Ant2	2412	17.30	≤30.00	PASS
11AX20-CDD	total	2412	20.08	≤30.00	PASS
11AX20-CDD	Ant1	2437	18.20	≤30.00	PASS
11AX20-CDD	Ant2	2437	18.29	≤30.00	PASS
11AX20-CDD	total	2437	21.26	≤30.00	PASS
11AX20-CDD	Ant1	2462	17.80	≤30.00	PASS
11AX20-CDD	Ant2	2462	18.11	≤30.00	PASS
11AX20-CDD	total	2462	20.97	≤30.00	PASS
11AX40-CDD	Ant1	2422	16.24	≤30.00	PASS
11AX40-CDD	Ant2	2422	16.71	≤30.00	PASS
11AX40-CDD	total	2422	19.49	≤30.00	PASS
11AX40-CDD	Ant1	2437	16.14	≤30.00	PASS
11AX40-CDD	Ant2	2437	16.24	≤30.00	PASS
11AX40-CDD	total	2437	19.20	≤30.00	PASS
11AX40-CDD	Ant1	2452	16.07	≤30.00	PASS
11AX40-CDD	Ant2	2452	16.26	≤30.00	PASS
11AX40-CDD	total	2452	19.18	≤30.00	PASS

Note: For CDD Mode, Directional gain = $G_{ANT} + \text{Array Gain}$, Array Gain = 0 dB (i.e., no array gain) for $NANT \leq 4$;
 $G_{ANT1}=3.58\text{dBi}$; $G_{ANT2}=4.05\text{dBi}$ **CDD Mode** use max. antenna Gain, So the Directional gain < 6dBi.

The Duty Cycle Factor is compensated in the data.

4: Maximum power spectral density

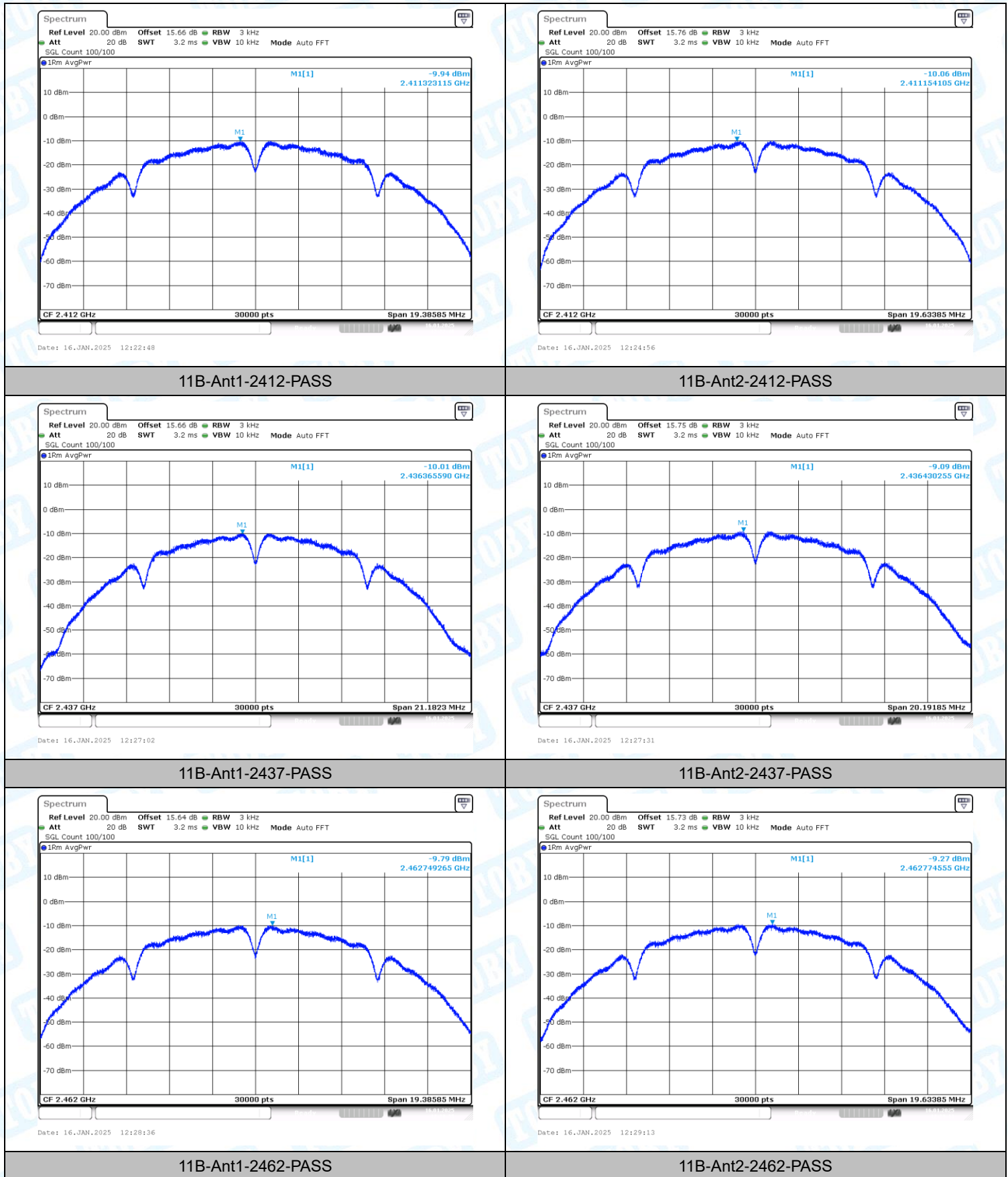
4.1 Test Result

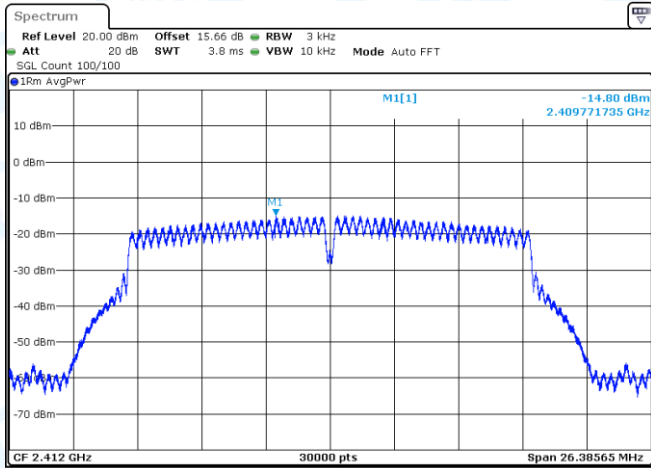
TestMode	Ant.	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.91	≤8.00	PASS
11B	Ant2	2412	-10.03	≤8.00	PASS
11B	Ant1	2437	-9.98	≤8.00	PASS
11B	Ant2	2437	-9.06	≤8.00	PASS
11B	Ant1	2462	-9.76	≤8.00	PASS
11B	Ant2	2462	-9.24	≤8.00	PASS
11G	Ant1	2412	-14.62	≤8.00	PASS
11G	Ant2	2412	-13.86	≤8.00	PASS
11G	Ant2	2437	-13.75	≤8.00	PASS
11G	Ant1	2437	-13.46	≤8.00	PASS
11G	Ant1	2462	-15.08	≤8.00	PASS
11G	Ant2	2462	-14.83	≤8.00	PASS
11N20-CDD	Ant1	2412	-15.12	≤8.00	PASS
11N20-CDD	Ant2	2412	-14.88	≤8.00	PASS
11N20-CDD	total	2412	-11.99	≤7.17	PASS
11N20-CDD	Ant1	2437	-14.86	≤8.00	PASS
11N20-CDD	Ant2	2437	-14.46	≤8.00	PASS
11N20-CDD	total	2437	-11.65	≤7.17	PASS
11N20-CDD	Ant1	2462	-15.20	≤8.00	PASS
11N20-CDD	Ant2	2462	-14.55	≤8.00	PASS
11N20-CDD	total	2462	-11.85	≤7.17	PASS
11N40-CDD	Ant1	2422	-17.89	≤8.00	PASS
11N40-CDD	Ant2	2422	-17.49	≤8.00	PASS
11N40-CDD	total	2422	-14.68	≤7.17	PASS
11N40-CDD	Ant1	2437	-16.48	≤8.00	PASS
11N40-CDD	Ant2	2437	-16.36	≤8.00	PASS
11N40-CDD	total	2437	-13.41	≤7.17	PASS
11N40-CDD	Ant1	2452	-15.96	≤8.00	PASS
11N40-CDD	Ant2	2452	-16.66	≤8.00	PASS
11N40-CDD	total	2452	-13.29	≤7.17	PASS
11AX20-CDD	Ant1	2412	-12.49	≤8.00	PASS
11AX20-CDD	Ant2	2412	-13.33	≤8.00	PASS
11AX20-CDD	total	2412	-9.88	≤7.17	PASS
11AX20-CDD	Ant1	2437	-13.35	≤8.00	PASS
11AX20-CDD	Ant2	2437	-13.51	≤8.00	PASS
11AX20-CDD	total	2437	-10.42	≤7.17	PASS
11AX20-CDD	Ant1	2462	-14.02	≤8.00	PASS
11AX20-CDD	Ant2	2462	-14.15	≤8.00	PASS
11AX20-CDD	total	2462	-11.07	≤7.17	PASS
11AX40-CDD	Ant1	2422	-18.66	≤8.00	PASS
11AX40-CDD	Ant2	2422	-17.94	≤8.00	PASS
11AX40-CDD	total	2422	-15.27	≤7.17	PASS
11AX40-CDD	Ant1	2437	-18.64	≤8.00	PASS
11AX40-CDD	Ant2	2437	-18.57	≤8.00	PASS
11AX40-CDD	total	2437	-15.59	≤7.17	PASS
11AX40-CDD	Ant1	2452	-18.87	≤8.00	PASS
11AX40-CDD	Ant2	2452	-18.47	≤8.00	PASS
11AX40-CDD	total	2452	-15.66	≤7.17	PASS

Note: 1.The Duty Cycle Factor is compensated in the graph.

2. For CDD Mode, Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.83\text{dBi}$; $G_{ANT1} = 3.58\text{dBi}$; $G_{ANT2} = 4.05\text{dBi}$ and the Directional gain > 6dBi, So the total $PSD_{limit} = PSD_{limit} - (6.83 - 6) = PSD_{limit} - 0.83$

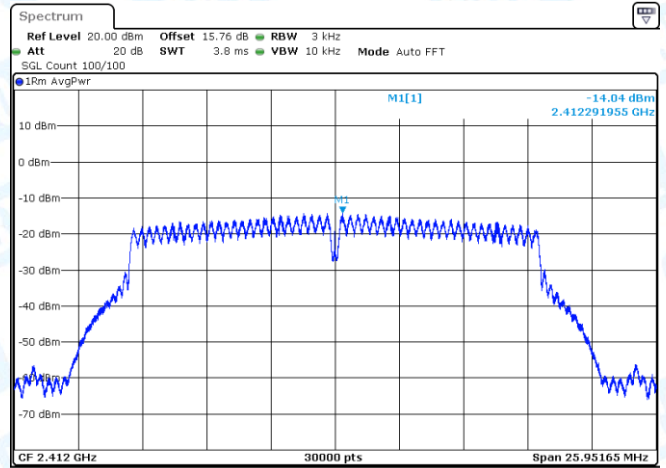
4.2 Test Graphs





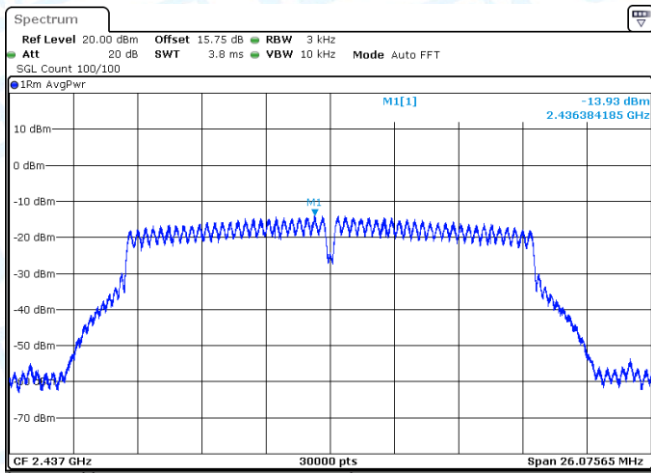
Date: 13.JAN.2025 09:29:58

11G-Ant1-2412-PASS



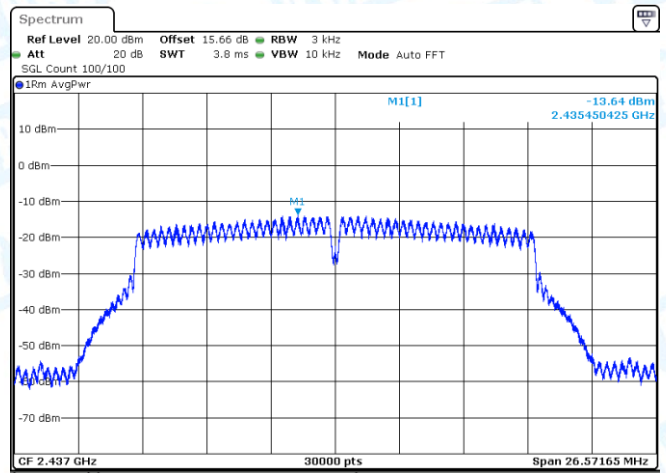
Date: 13.JAN.2025 09:51:10

11G-Ant2-2412-PASS



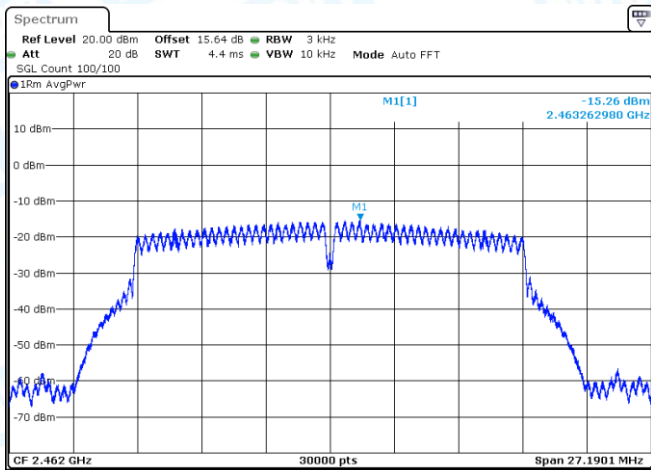
Date: 16.JAN.2025 12:37:19

11G-Ant2-2437-PASS



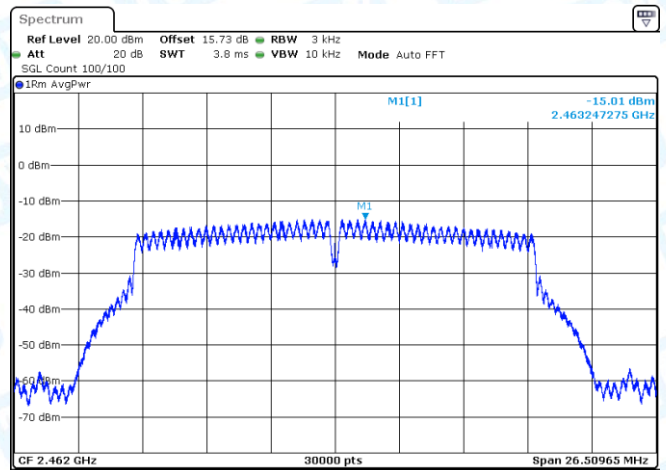
Date: 16.JAN.2025 12:36:50

11G-Ant1-2437-PASS



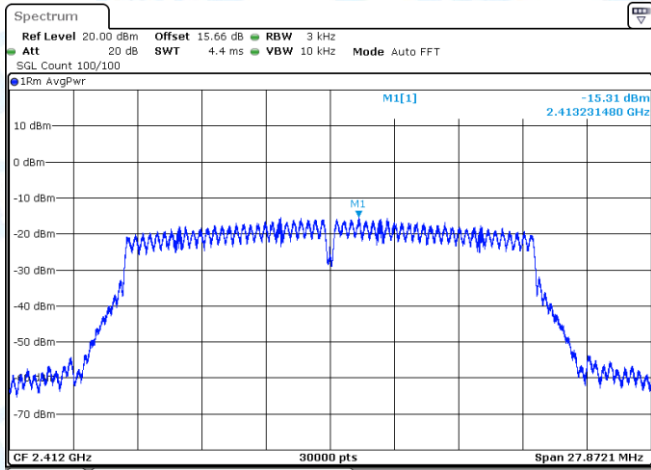
Date: 13.JAN.2025 09:34:26

11G-Ant1-2462-PASS



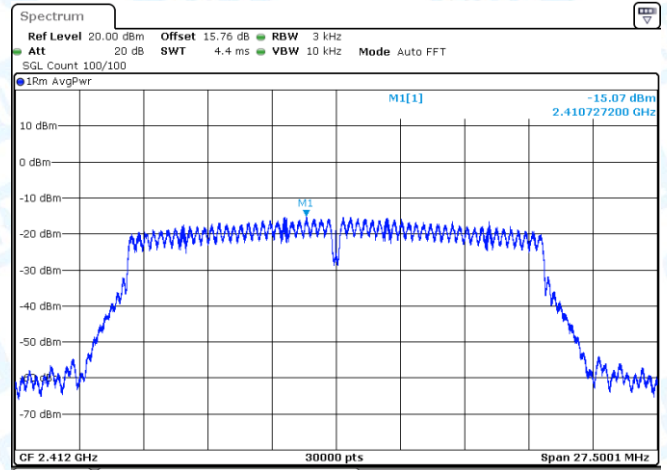
Date: 13.JAN.2025 09:55:07

11G-Ant2-2462-PASS



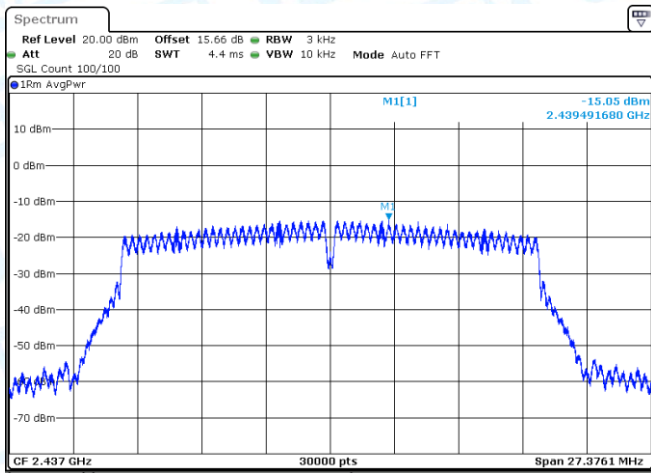
Date: 13.JAN.2025 09:59:10

11N20-CDD-Ant1-2412-PASS



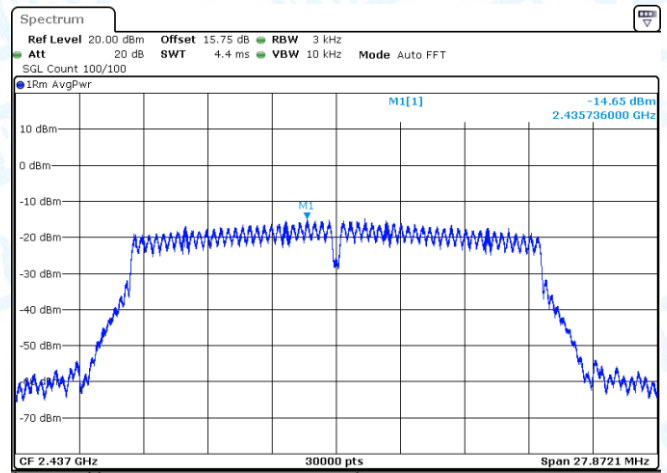
Date: 13.JAN.2025 10:00:55

11N20-CDD-Ant2-2412-PASS



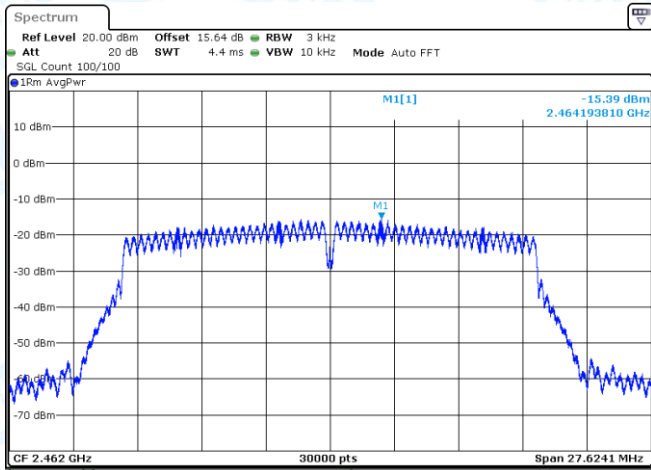
Date: 16.JAN.2025 12:43:00

11N20-CDD-Ant1-2437-PASS



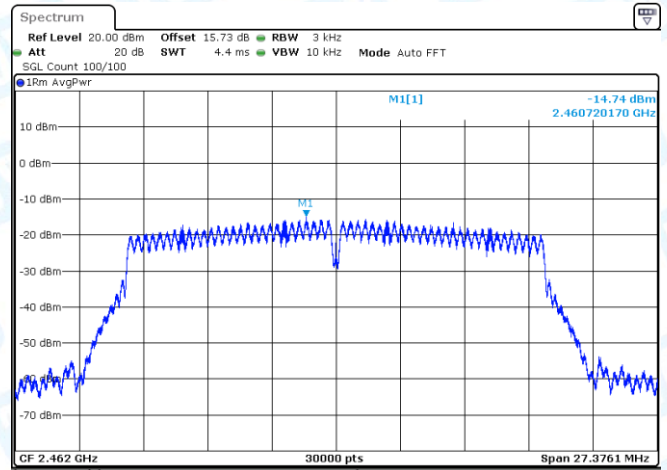
Date: 16.JAN.2025 12:43:28

11N20-CDD-Ant2-2437-PASS



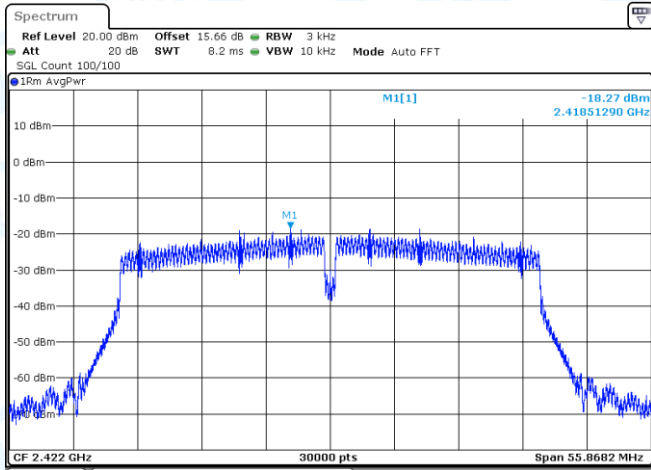
Date: 13.JAN.2025 10:13:19

11N20-CDD-Ant1-2462-PASS



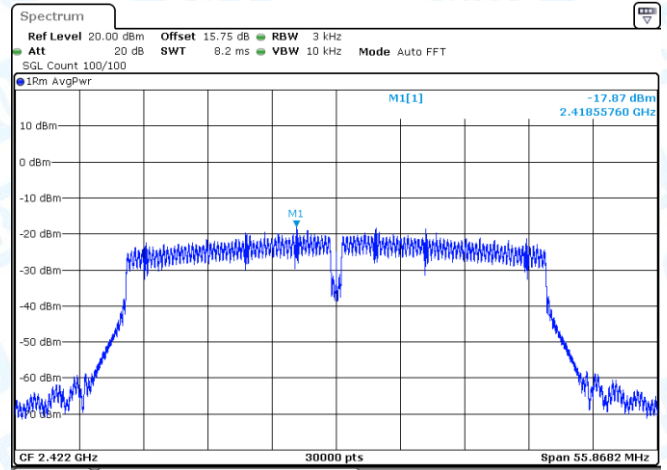
Date: 13.JAN.2025 10:15:24

11N20-CDD-Ant2-2462-PASS



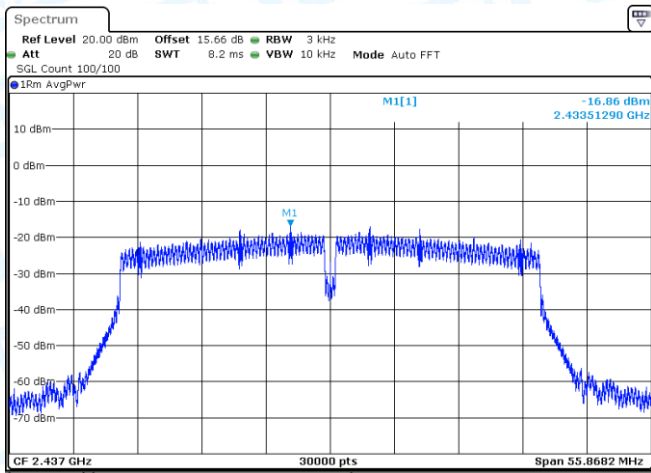
Date: 13.JAN.2025 10:33:18

11N40-CDD-Ant1-2422-PASS



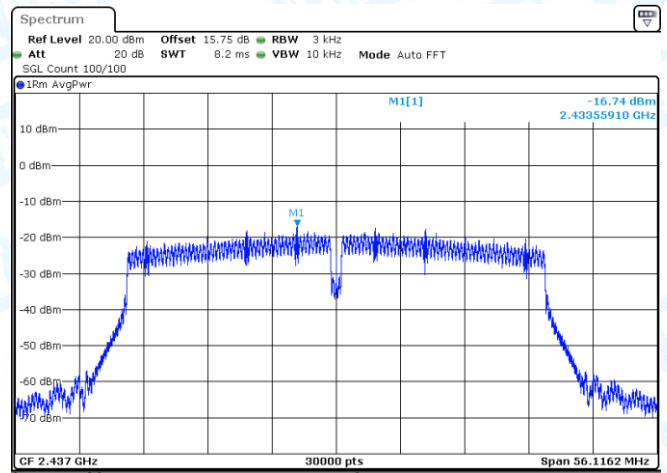
Date: 13.JAN.2025 10:34:58

11N40-CDD-Ant2-2422-PASS



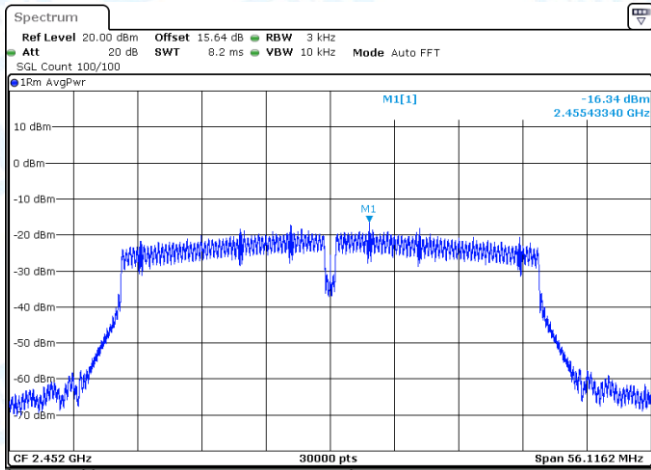
Date: 13.JAN.2025 10:40:39

11N40-CDD-Ant1-2437-PASS



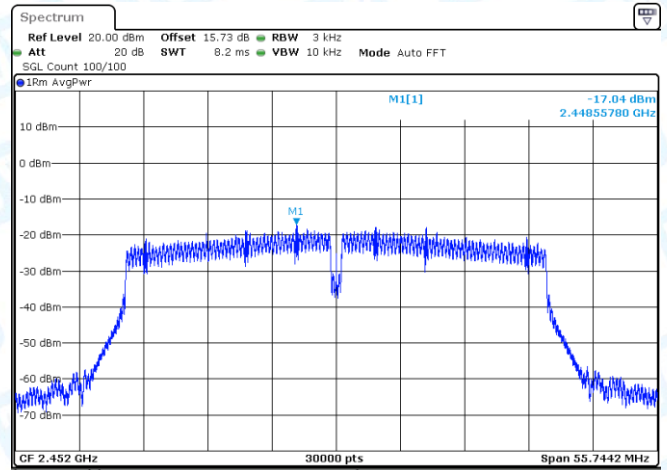
Date: 13.JAN.2025 10:42:35

11N40-CDD-Ant2-2437-PASS



Date: 13.JAN.2025 10:48:39

11N40-CDD-Ant1-2452-PASS



Date: 13.JAN.2025 10:50:14

11N40-CDD-Ant2-2452-PASS