

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

General Description of EUT	
Product Name:	Lorawan gateway
Test Model:	H300
Sample ID:	RW-C-202208-0135-4-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 12V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202208-0135-63	

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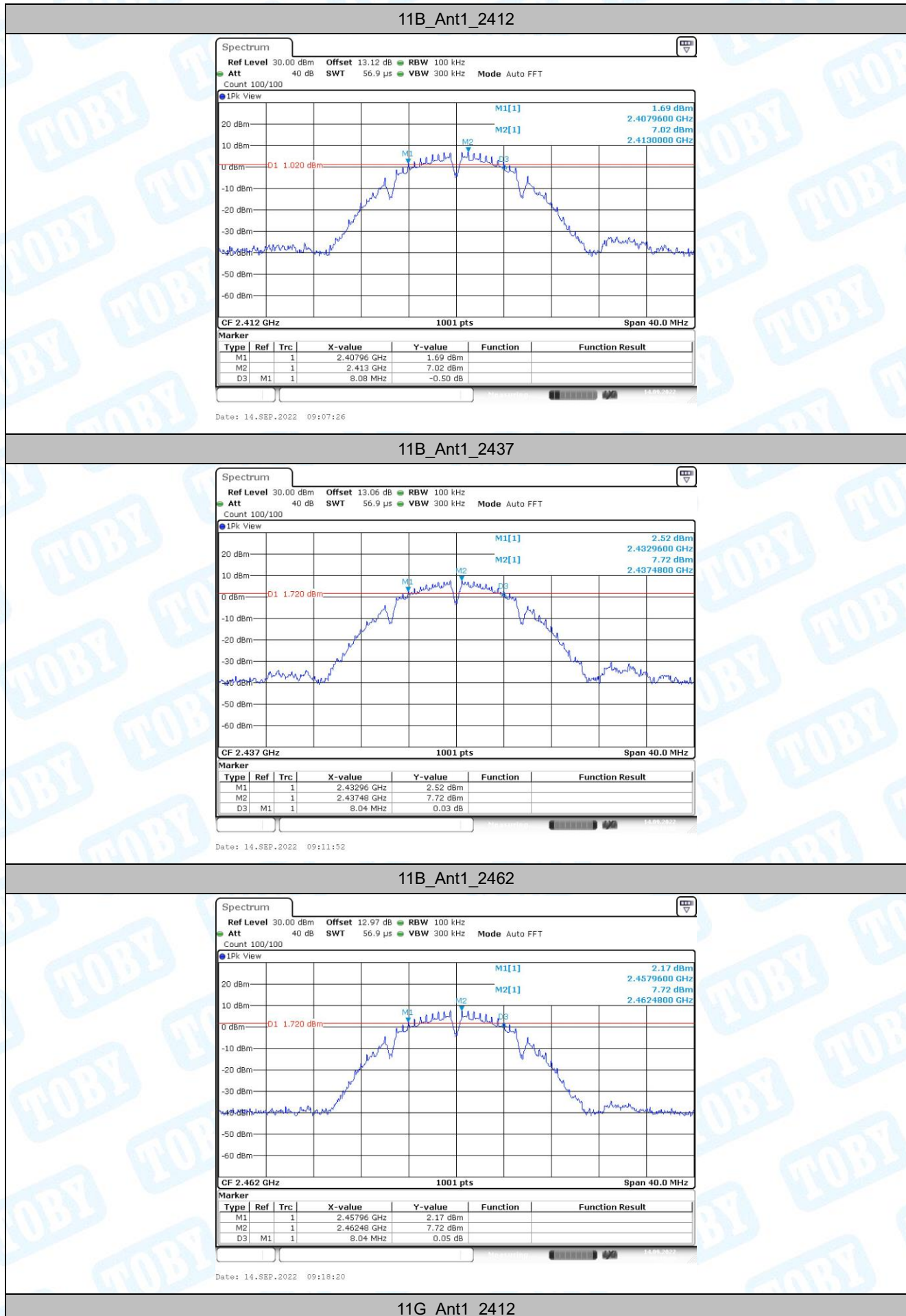
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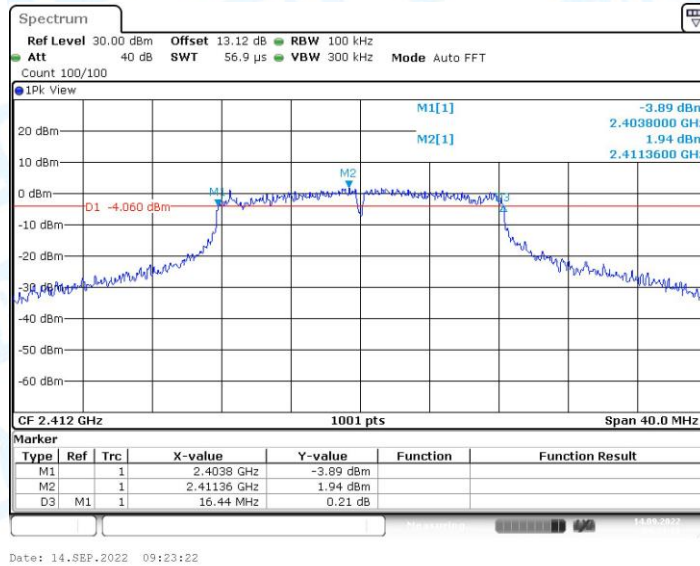
1. DTS Bandwidth

1.1. Test Result

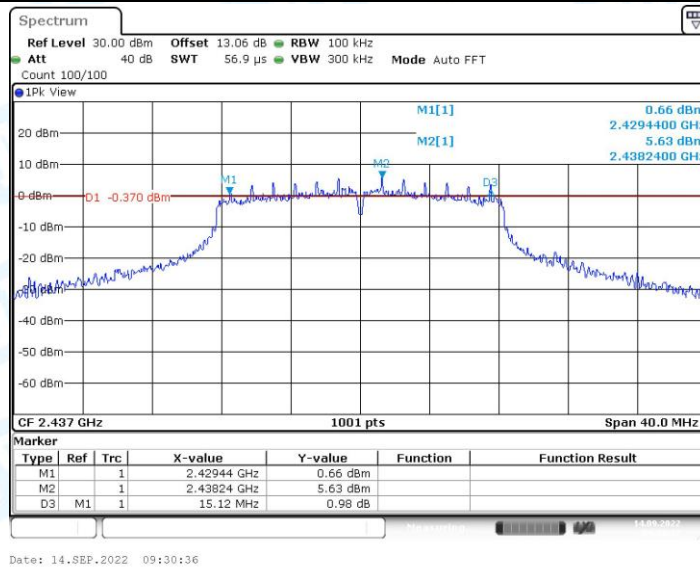
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.08	2407.96	2416.04	0.5	PASS
		2437	8.04	2432.96	2441.00	0.5	PASS
		2462	8.04	2457.96	2466.00	0.5	PASS
11G	Ant1	2412	16.44	2403.80	2420.24	0.5	PASS
		2437	15.12	2429.44	2444.56	0.5	PASS
		2462	15.68	2454.44	2470.12	0.5	PASS
11N20SISO	Ant1	2412	14.20	2405.68	2419.88	0.5	PASS
		2437	17.60	2428.20	2445.80	0.5	PASS
		2462	17.56	2453.20	2470.76	0.5	PASS
11N40SISO	Ant1	2422	32.40	2404.40	2436.80	0.5	PASS
		2437	32.48	2419.48	2451.96	0.5	PASS
		2452	33.84	2435.68	2469.52	0.5	PASS

1.2. Test Graphs

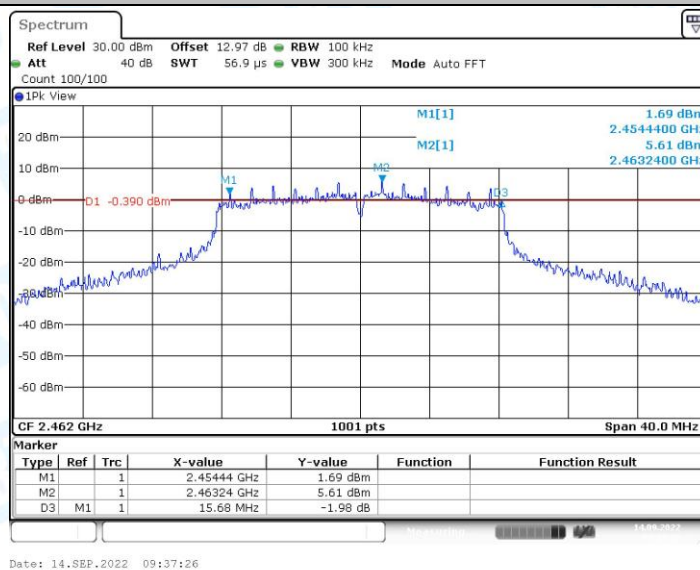




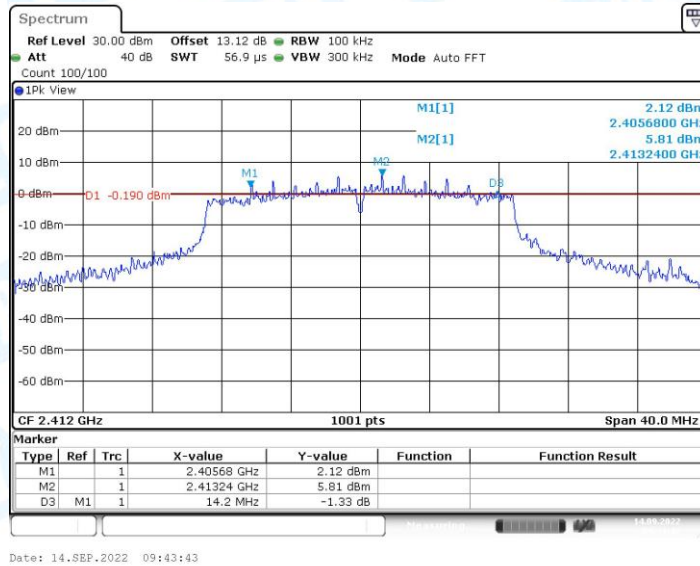
11G_Ant1_2437



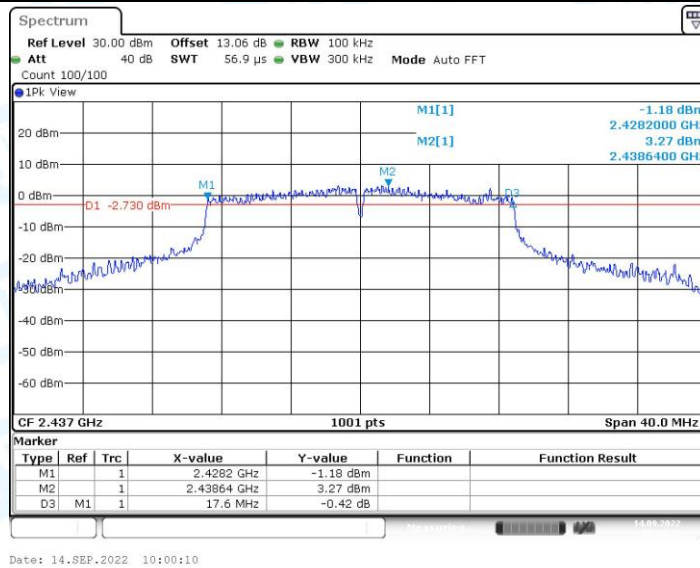
11G_Ant1_2462



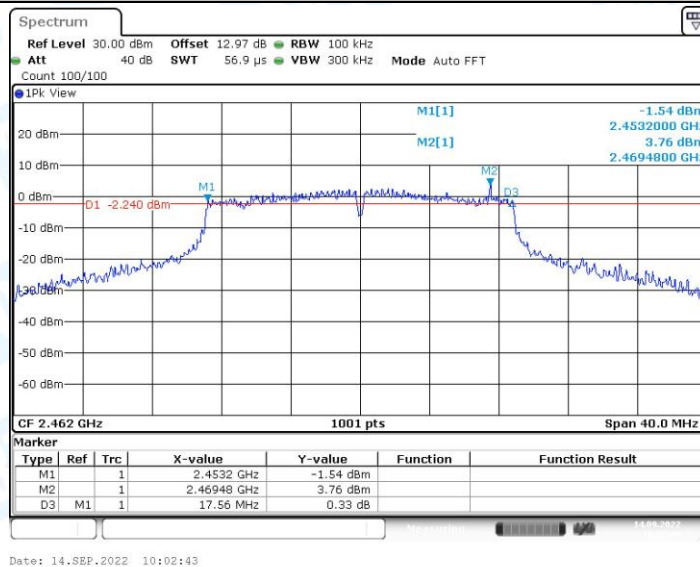
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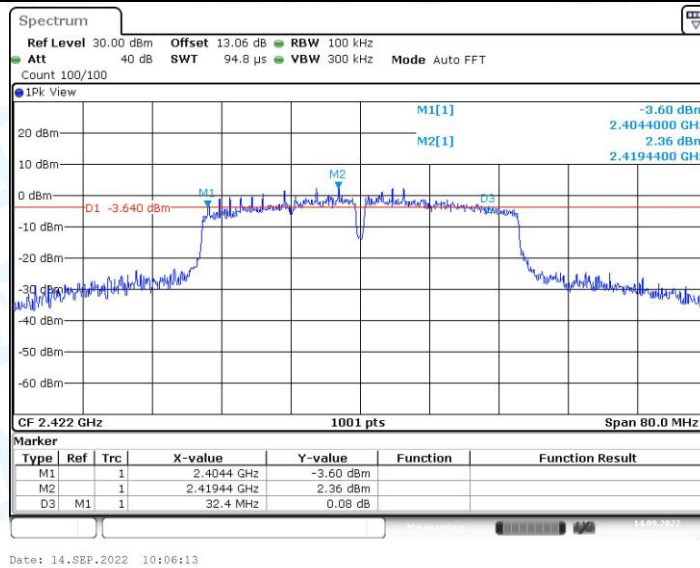
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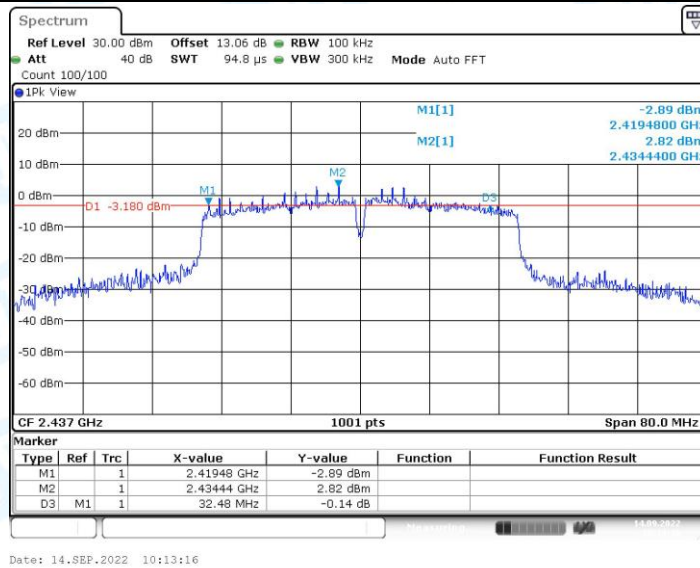
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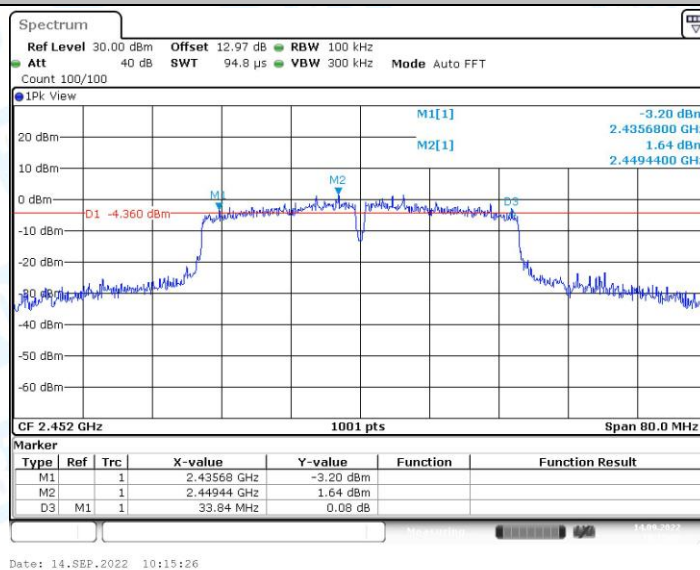
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11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



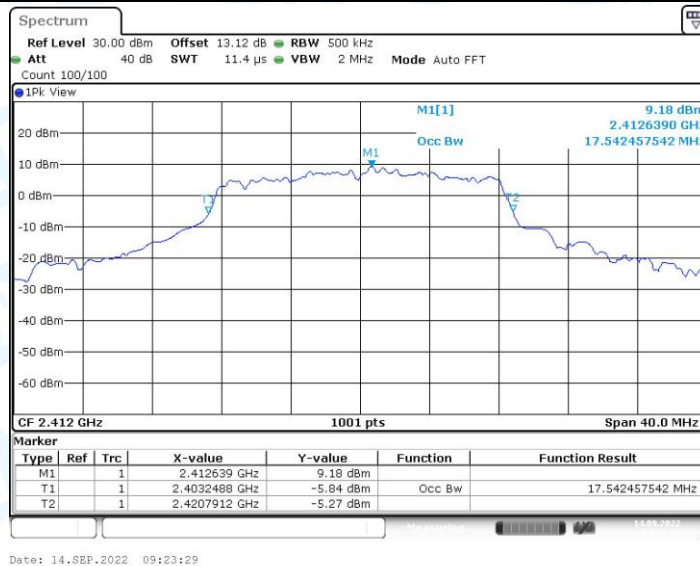
2. Occupied Channel Bandwidth

2.1. Test Result

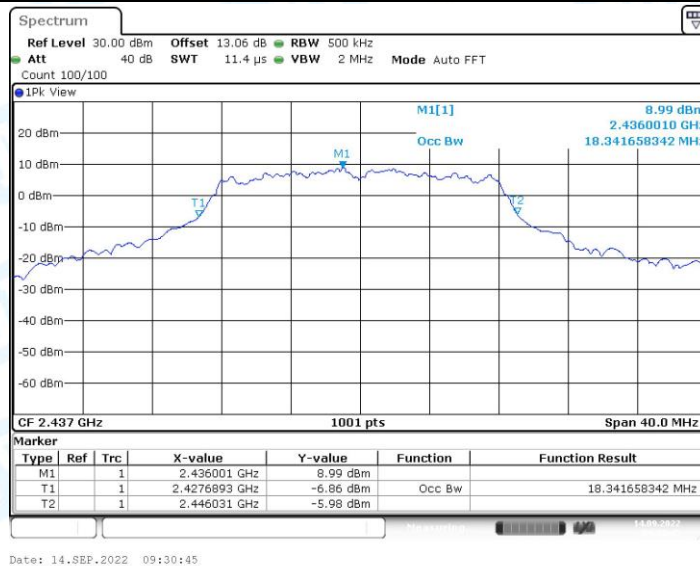
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	12.987	2405.6064	2418.5934	---	---
		2437	13.187	2430.4066	2443.5934	---	---
		2462	12.867	2455.5664	2468.4336	---	---
11G	Ant1	2412	17.542	2403.2488	2420.7912	---	---
		2437	18.342	2427.6893	2446.0310	---	---
		2462	18.182	2453.2488	2471.4306	---	---
11N20SISO	Ant1	2412	19.58	2402.5694	2422.1499	---	---
		2437	19.5	2426.8501	2446.3506	---	---
		2462	18.781	2452.6494	2471.4306	---	---
11N40SISO	Ant1	2422	36.523	2403.9381	2440.4615	---	---
		2437	36.603	2418.6983	2455.3017	---	---
		2452	36.523	2433.7782	2470.3017	---	---

2.2. Test Graphs

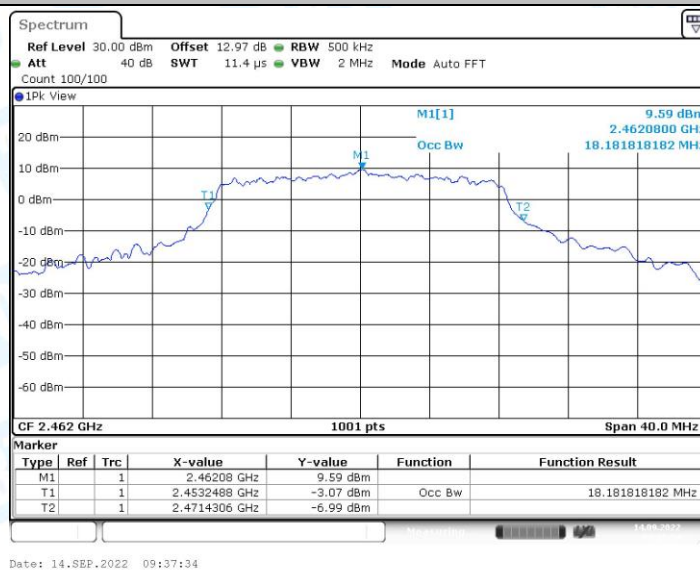




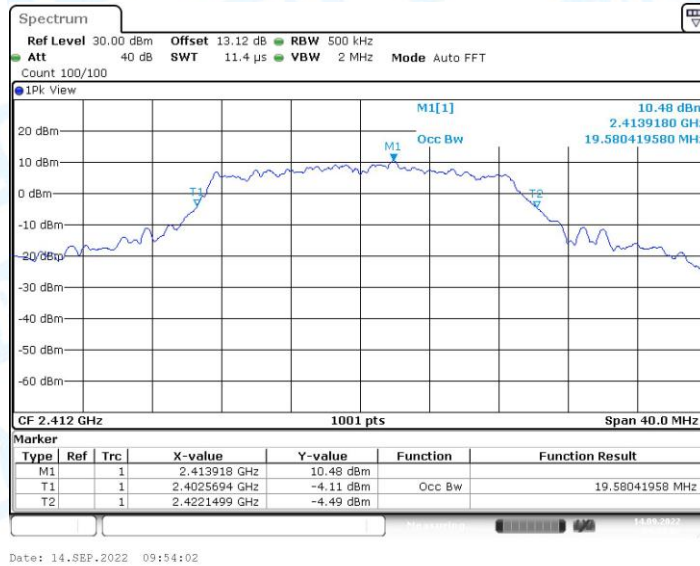
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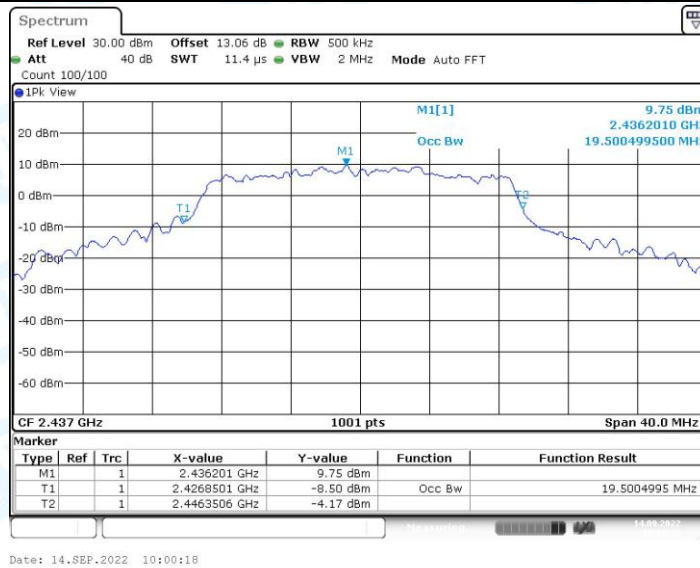
11G_Ant1_2462



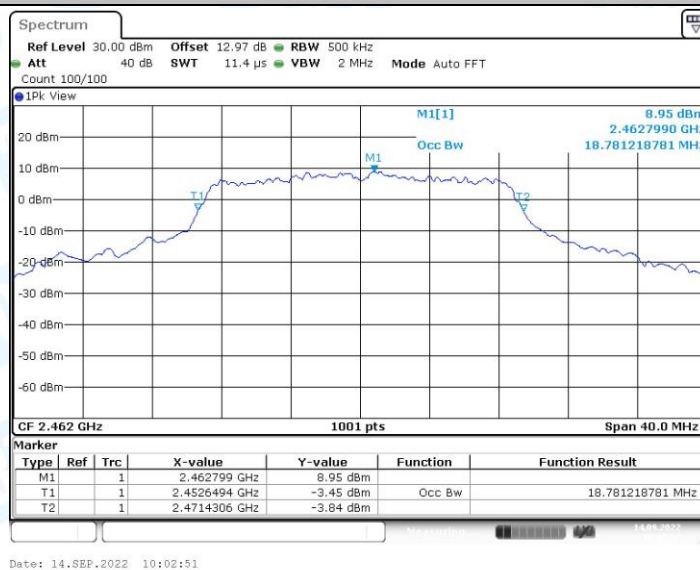
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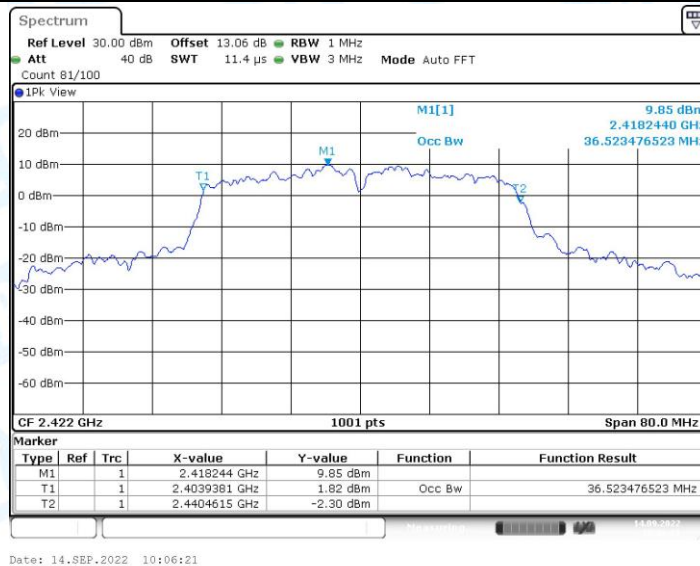
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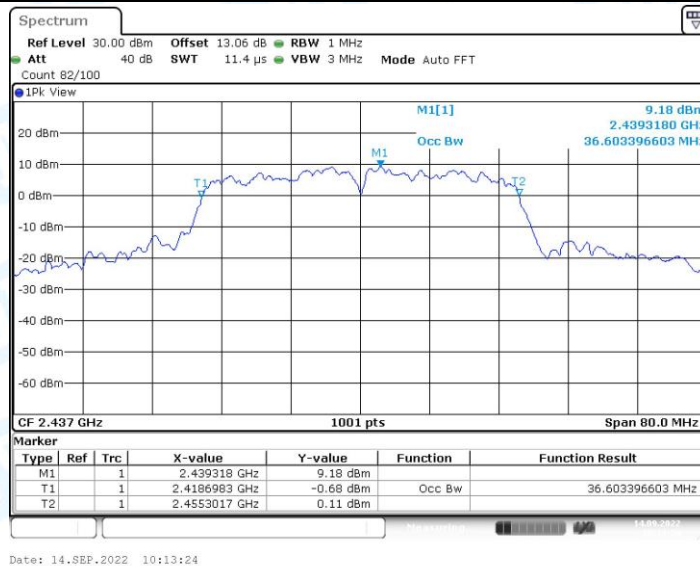
11N20SISO_Ant1_2462



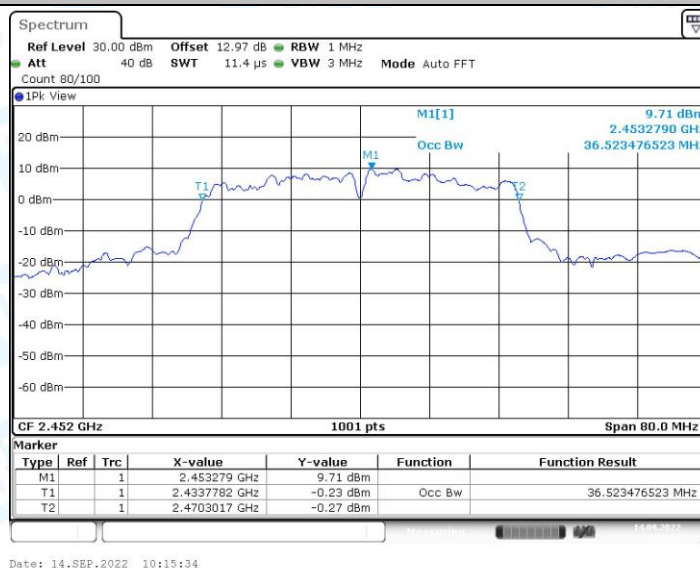
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452



3. Maximum conducted output power

3.1. Test Result

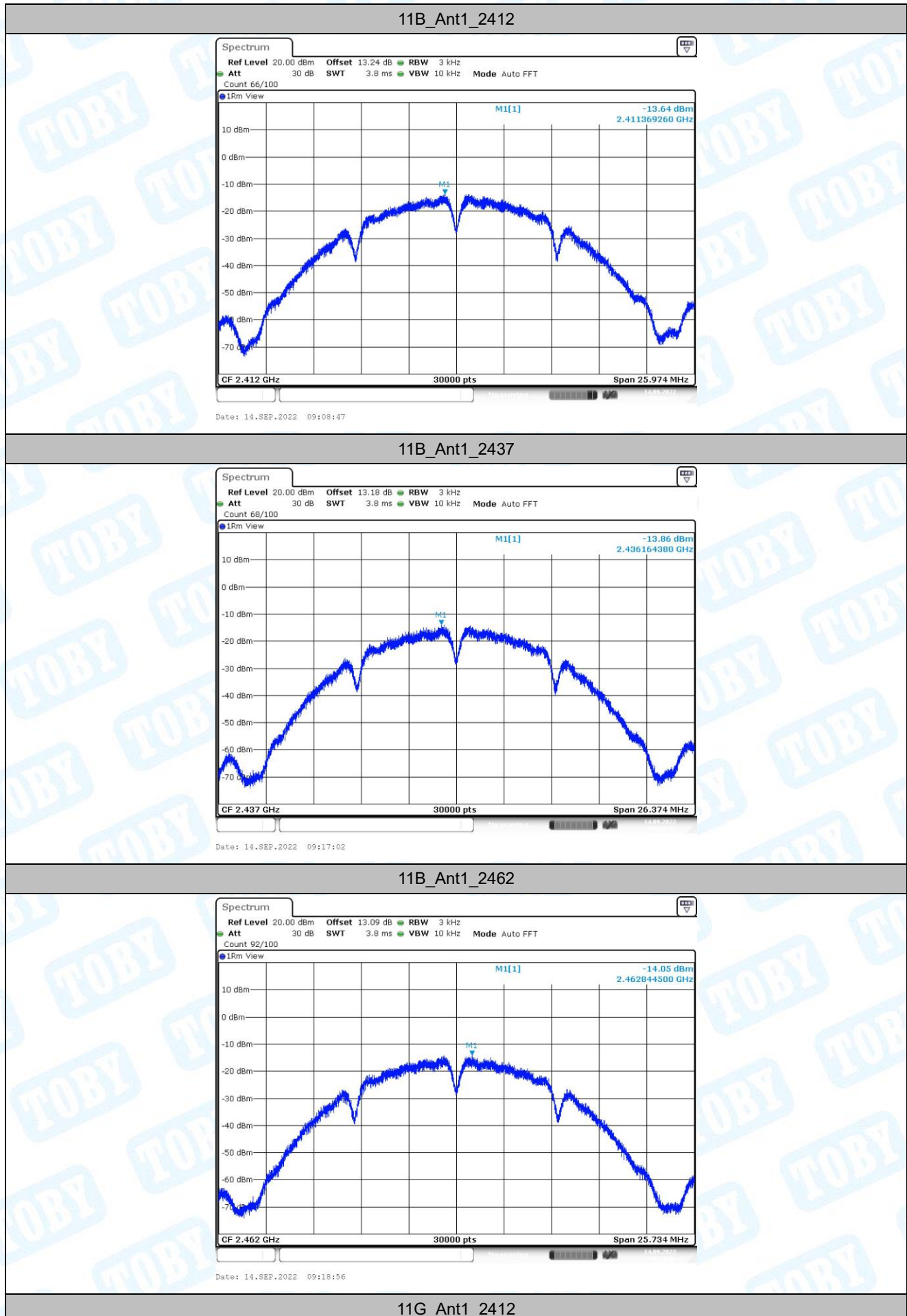
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	17.71	≤30.00	PASS
		2437	17.38	≤30.00	PASS
		2462	17.48	≤30.00	PASS
11G	Ant1	2412	17.35	≤30.00	PASS
		2437	17.25	≤30.00	PASS
		2462	17.32	≤30.00	PASS
11N20SISO	Ant1	2412	17.50	≤30.00	PASS
		2437	17.70	≤30.00	PASS
		2462	17.42	≤30.00	PASS
11N40SISO	Ant1	2422	17.57	≤30.00	PASS
		2437	17.57	≤30.00	PASS
		2452	17.40	≤30.00	PASS

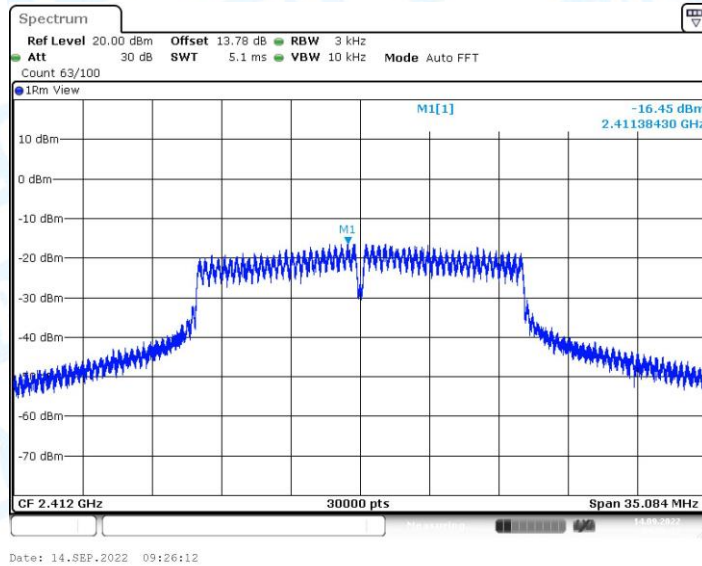
4. Maximum power spectral density

4.1. Test Result

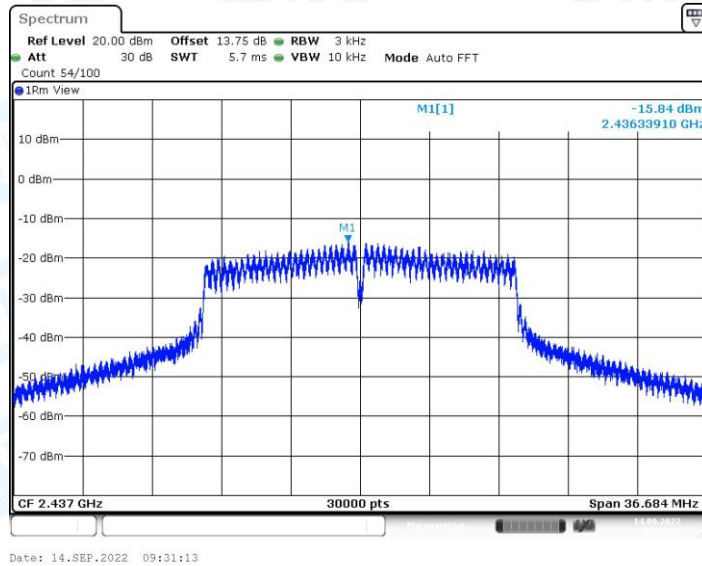
TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.64	≤8.00	PASS
		2437	-13.86	≤8.00	PASS
		2462	-14.05	≤8.00	PASS
11G	Ant1	2412	-16.45	≤8.00	PASS
		2437	-15.84	≤8.00	PASS
		2462	-15.93	≤8.00	PASS
11N20SISO	Ant1	2412	-15.78	≤8.00	PASS
		2437	-15.48	≤8.00	PASS
		2462	-16.51	≤8.00	PASS
11N40SISO	Ant1	2422	-18.01	≤8.00	PASS
		2437	-17.9	≤8.00	PASS
		2452	-17.68	≤8.00	PASS

4.2. Test Graphs

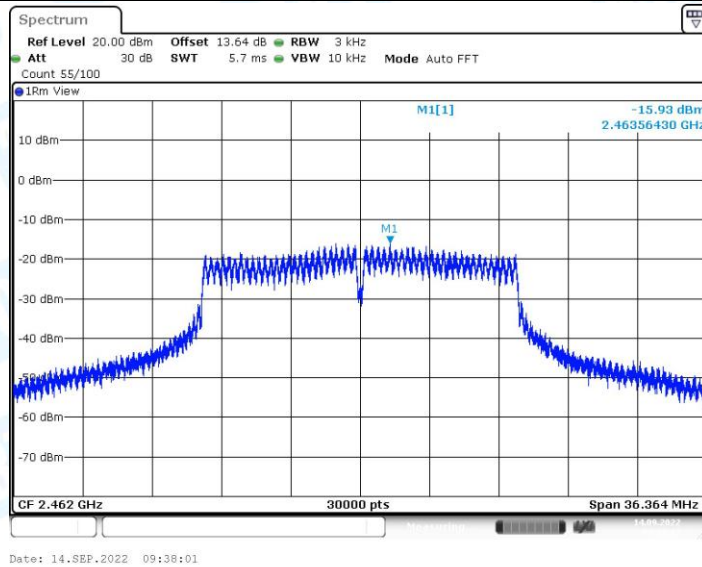




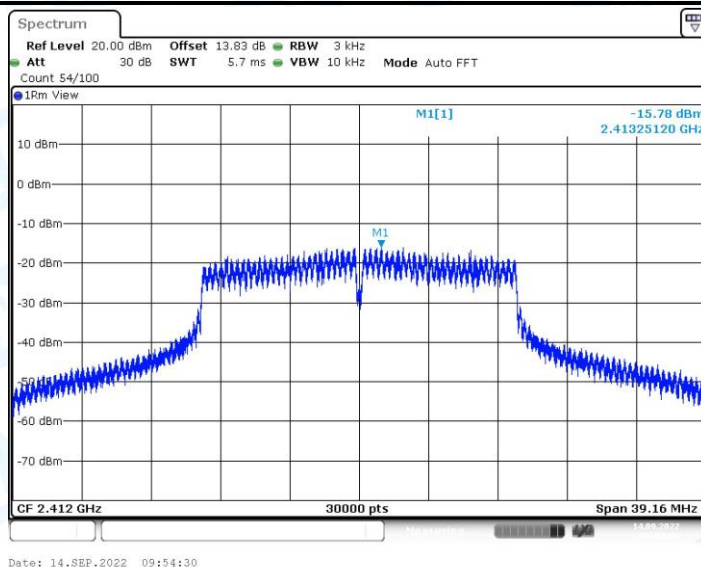
11G_Ant1_2437



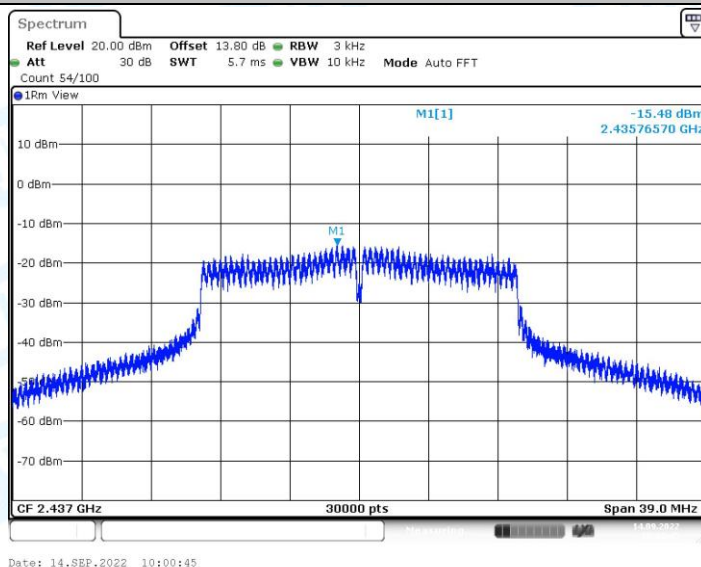
11G_Ant1_2462



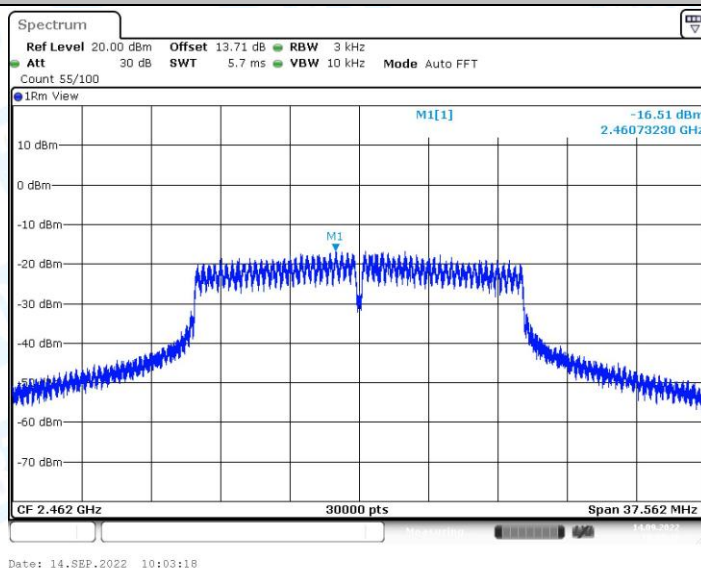
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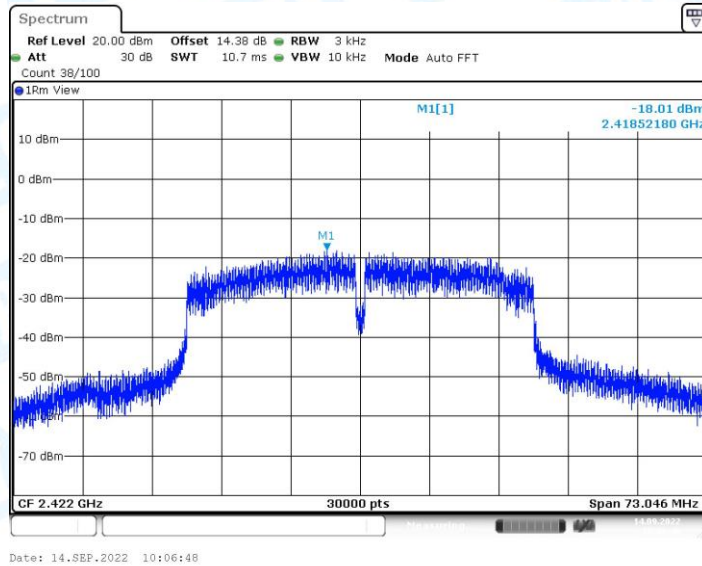
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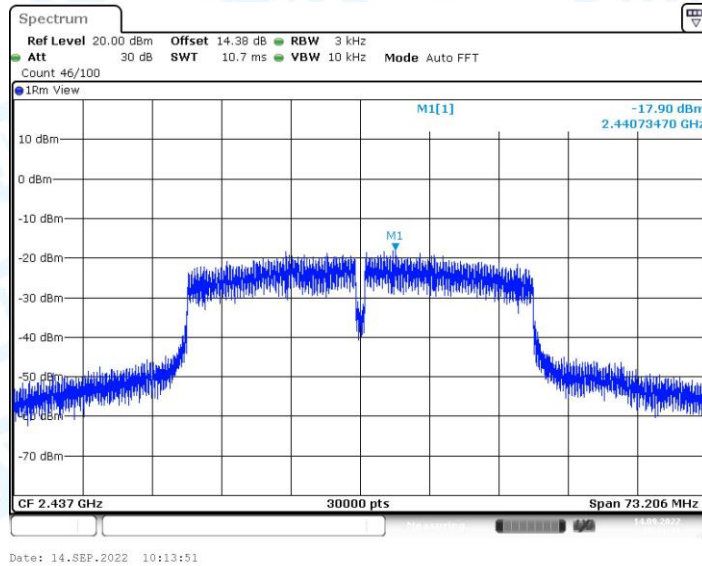
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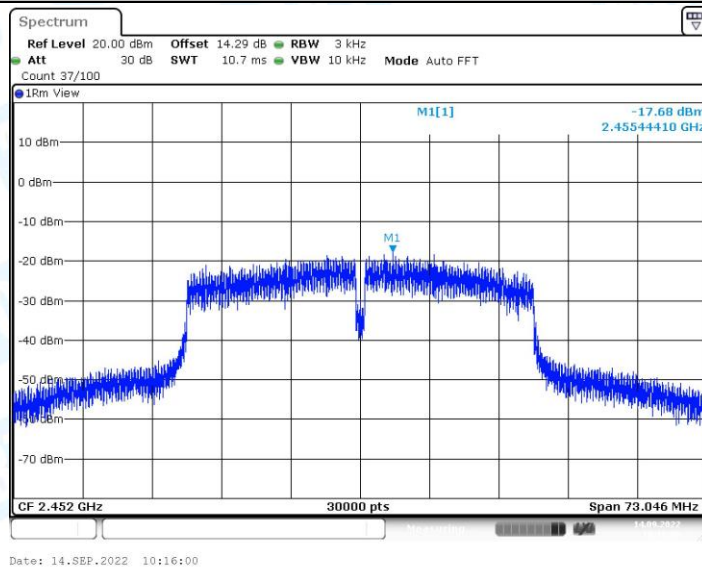
11N40SISO_Ant1_2422



11N40SISO_Ant1_2437



11N40SISO_Ant1_2452

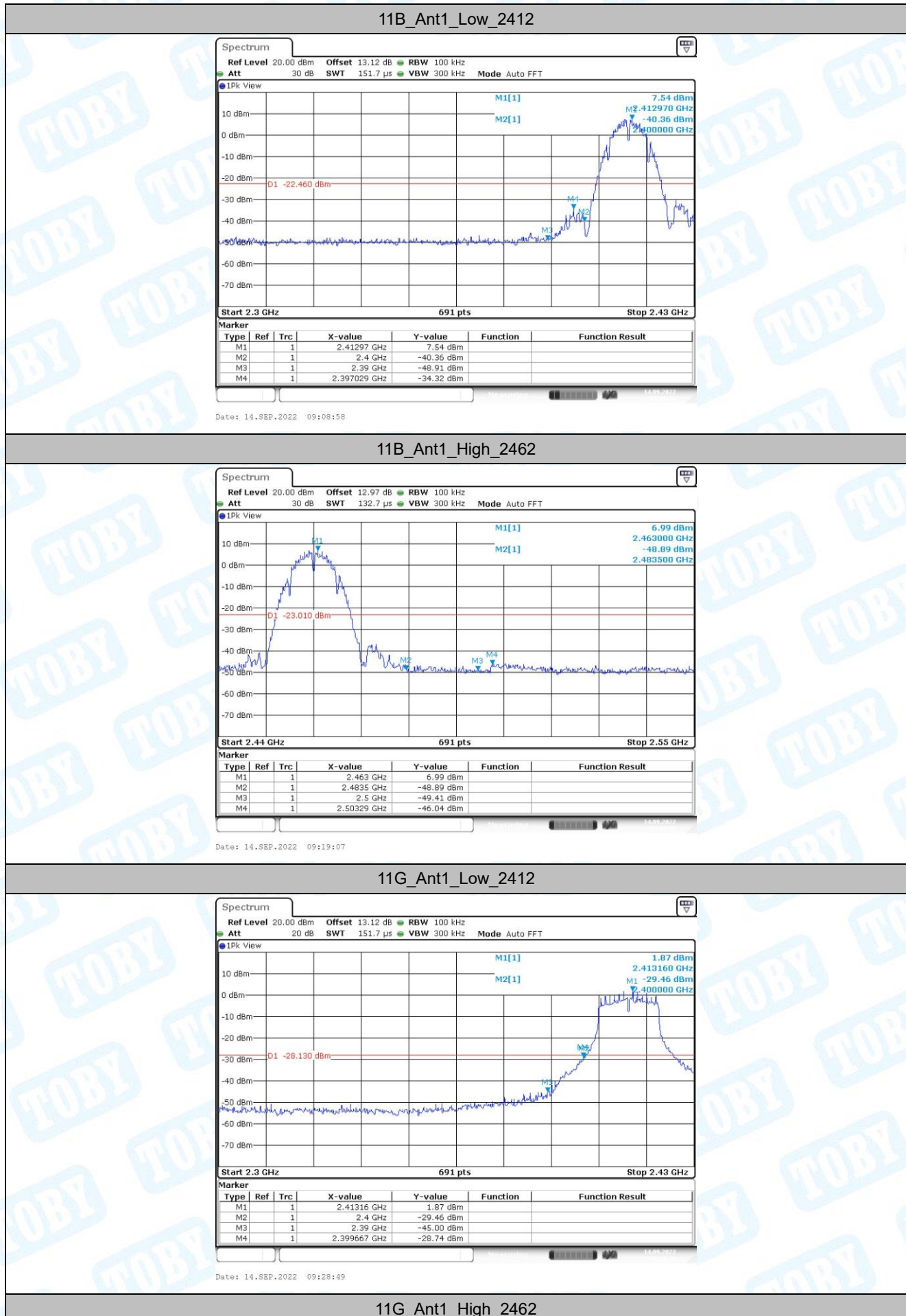


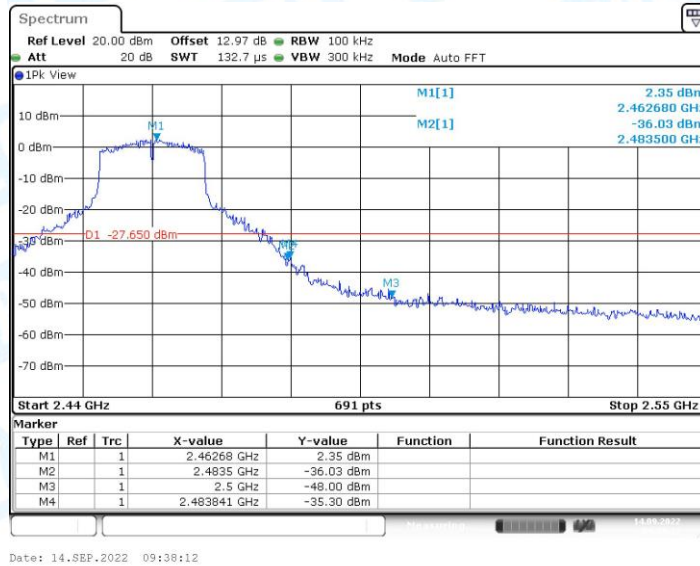
5. Band edge measurements

5.1. Test Result

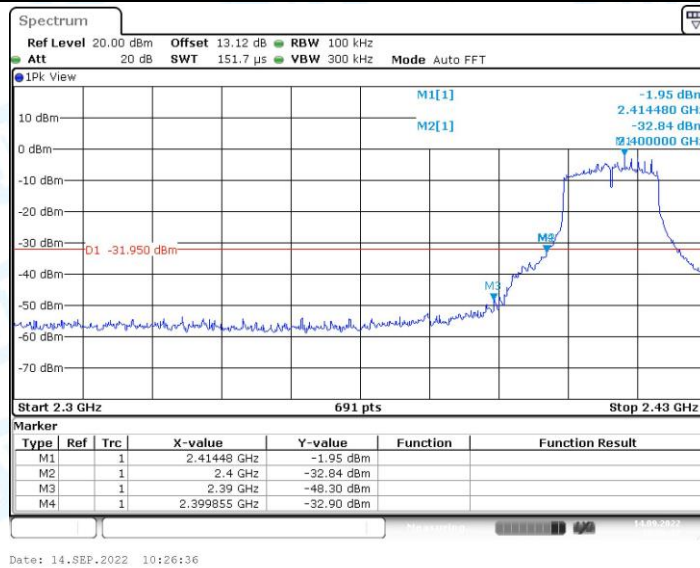
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	7.54	-34.32	≤-22.46	PASS
		High	2462	6.99	-46.04	≤-23.01	PASS
11G	Ant1	Low	2412	1.87	-28.74	≤-28.13	PASS
		High	2462	2.35	-35.3	≤-27.65	PASS
11N20SISO	Ant1	Low	2412	-1.95	-32.9	≤-31.95	PASS
		High	2462	2.25	-32.47	≤-27.75	PASS
11N40SISO	Ant1	Low	2422	-2.18	-36.84	≤-32.18	PASS
		High	2452	3.22	-27.23	≤-26.78	PASS

5.2. Test Graphs

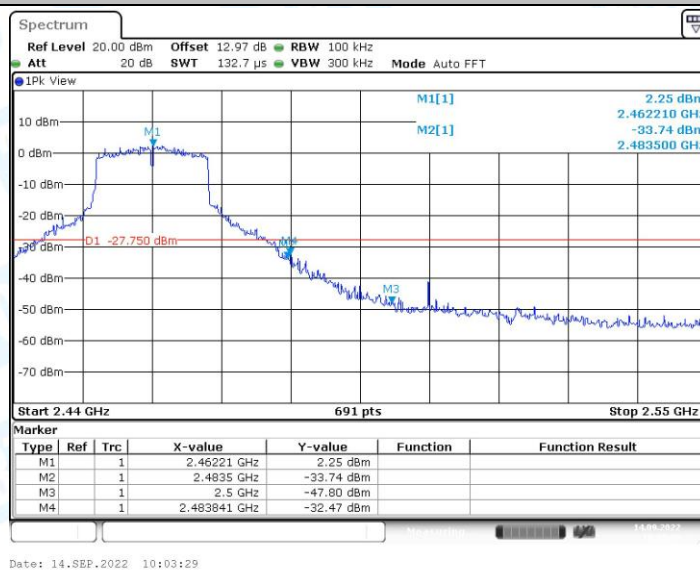




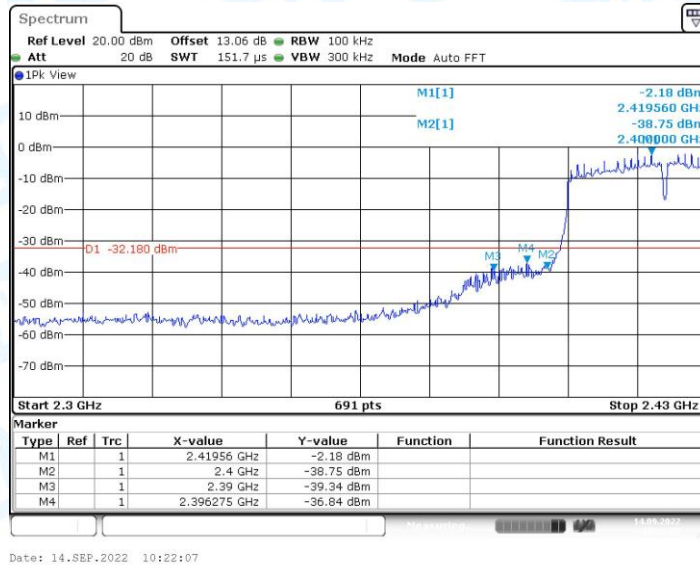
11N20SISO_Ant1_Low_2412



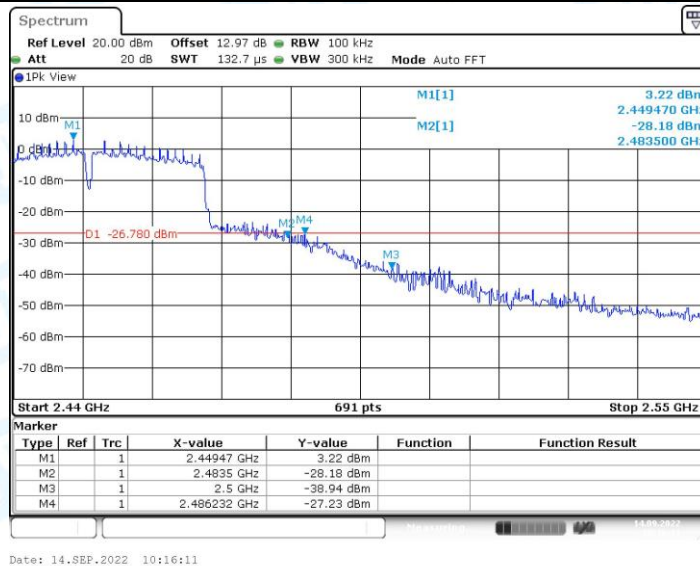
11N20SISO_Ant1_High_2462



11N40SISO_Ant1_Low_2422



11N40SISO_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	8.36	8.36	---	PASS
			30~1000	8.36	-57.78	≤-21.64	PASS
			1000~26500	8.36	-47.02	≤-21.64	PASS
		2437	Reference	9.24	9.24	---	PASS
			30~1000	9.24	-56.21	≤-20.76	PASS
			1000~26500	9.24	-47.87	≤-20.76	PASS
		2462	Reference	7.85	7.85	---	PASS
			30~1000	7.85	-57.16	≤-22.15	PASS
			1000~26500	7.85	-48.37	≤-22.15	PASS
11G	Ant1	2412	Reference	5.55	5.55	---	PASS
			30~1000	5.55	-56.43	≤-24.45	PASS
			1000~26500	5.55	-47.58	≤-24.45	PASS
		2437	Reference	5.20	5.20	---	PASS
			30~1000	5.20	-57.32	≤-24.8	PASS
			1000~26500	5.20	-47.8	≤-24.8	PASS
		2462	Reference	5.10	5.10	---	PASS
			30~1000	5.10	-56.7	≤-24.9	PASS
			1000~26500	5.10	-48.28	≤-24.9	PASS
11N20SISO	Ant1	2412	Reference	5.73	5.73	---	PASS
			30~1000	5.73	-56.88	≤-24.27	PASS
			1000~26500	5.73	-47.95	≤-24.27	PASS
		2437	Reference	6.23	6.23	---	PASS
			30~1000	6.23	-56.81	≤-23.77	PASS
			1000~26500	6.23	-48.49	≤-23.77	PASS
		2462	Reference	5.94	5.94	---	PASS
			30~1000	5.94	-56.02	≤-24.06	PASS
			1000~26500	5.94	-48.22	≤-24.06	PASS
11N40SISO	Ant1	2422	Reference	3.29	3.29	---	PASS
			30~1000	3.29	-57.33	≤-26.71	PASS
			1000~26500	3.29	-47.9	≤-26.71	PASS
		2437	Reference	3.04	3.04	---	PASS
			30~1000	3.04	-56.9	≤-26.96	PASS
			1000~26500	3.04	-48.01	≤-26.96	PASS
		2452	Reference	3.19	3.19	---	PASS
			30~1000	3.19	-56.17	≤-26.81	PASS
			1000~26500	3.19	-48.55	≤-26.81	PASS

6.2. Test Graphs

