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

General Description of EUT	
Product Name:	Smart Plug
Test Model:	NSP01
Sample ID:	RW-C-202205-0309-7-1#&RW-C-202205-0309-7-2#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	AC 120V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202205-0309-11	

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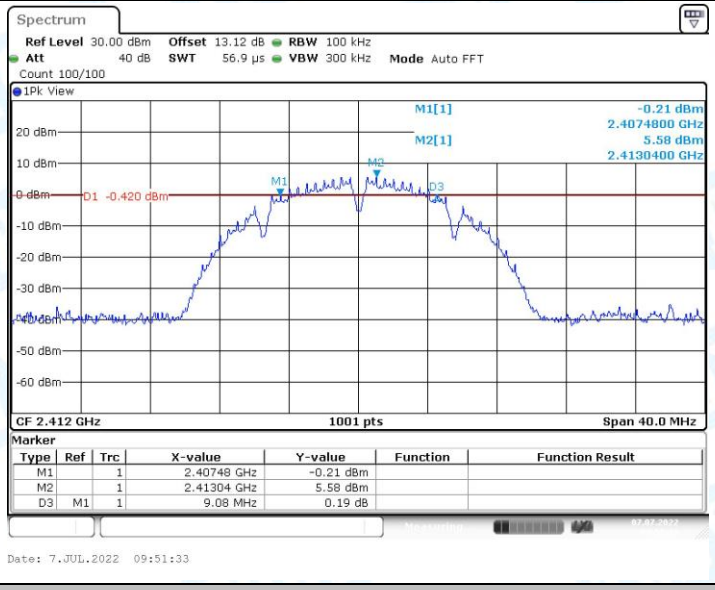
1. DTS Bandwidth

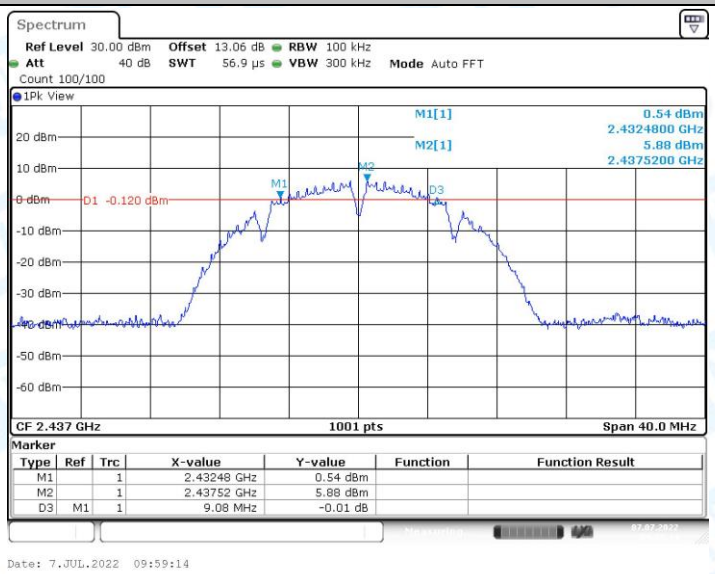
1.1.Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	9.08	2407.48	2416.56	0.5	PASS
		2437	9.08	2432.48	2441.56	0.5	PASS
		2462	9.04	2457.52	2466.56	0.5	PASS
11G	Ant1	2412	16.44	2403.84	2420.28	0.5	PASS
		2437	16.52	2428.76	2445.28	0.5	PASS
		2462	16.36	2453.84	2470.20	0.5	PASS
11N20SISO	Ant1	2412	17.60	2403.20	2420.80	0.5	PASS
		2437	17.64	2428.20	2445.84	0.5	PASS
		2462	17.60	2453.24	2470.84	0.5	PASS

1.2.Test Graphs



11B_Ant1_2412



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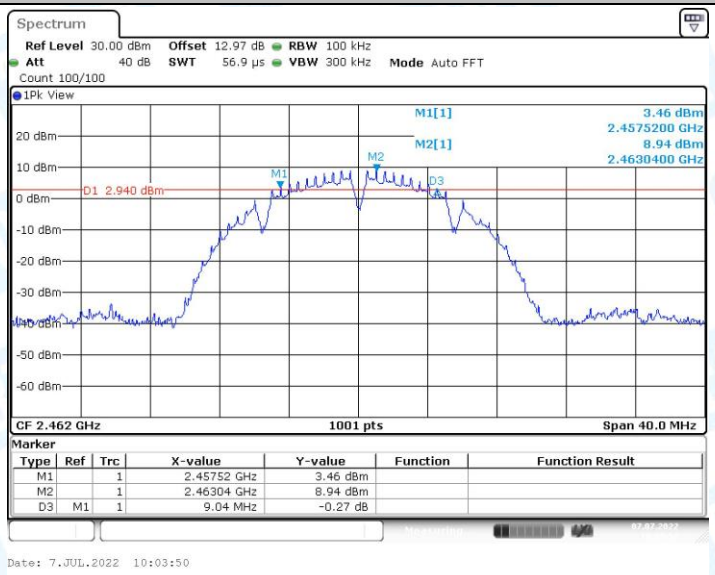

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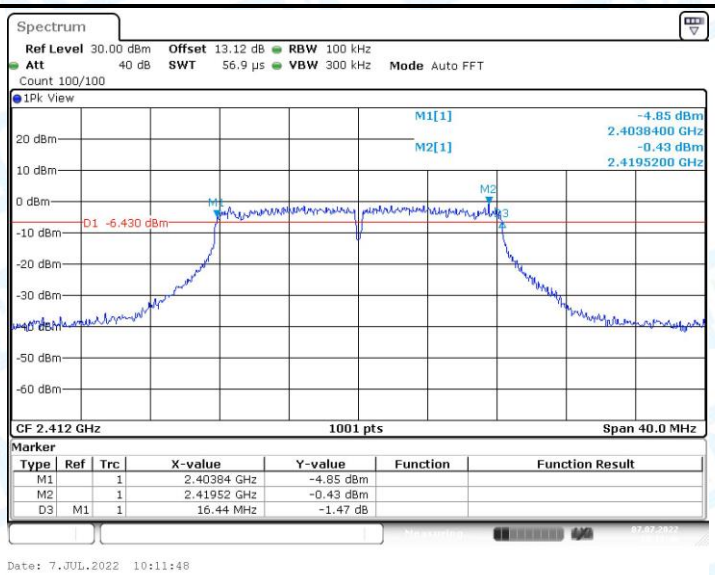
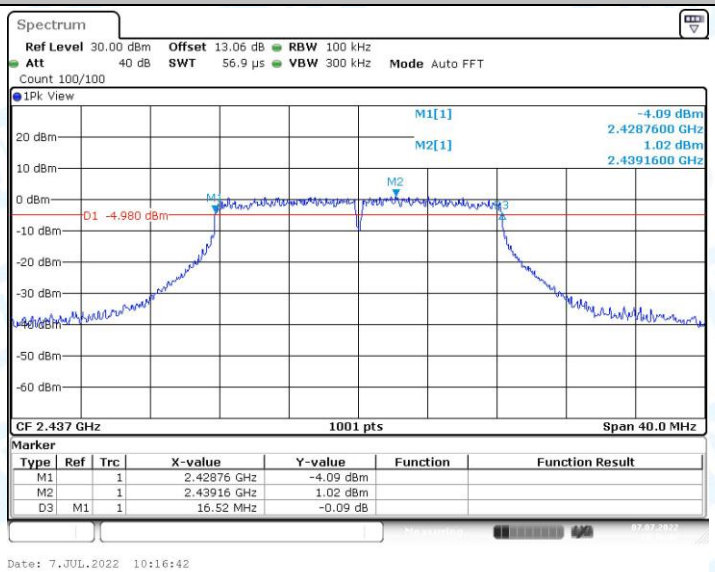


11G_Ant1_2412



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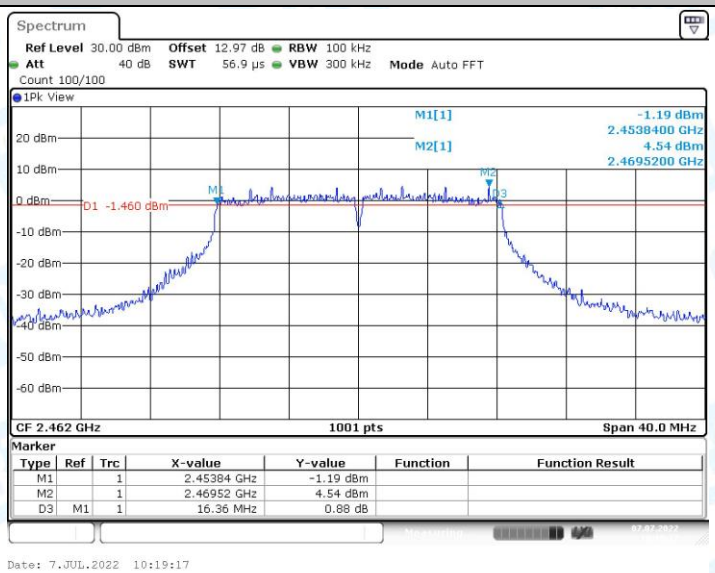

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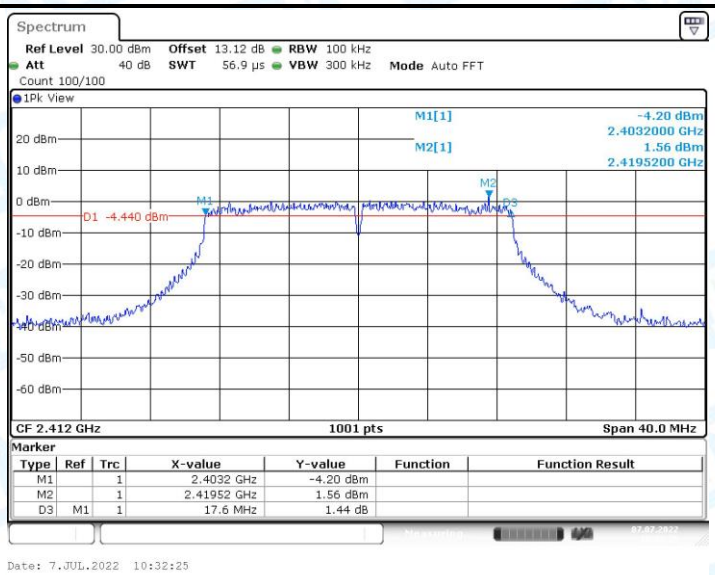
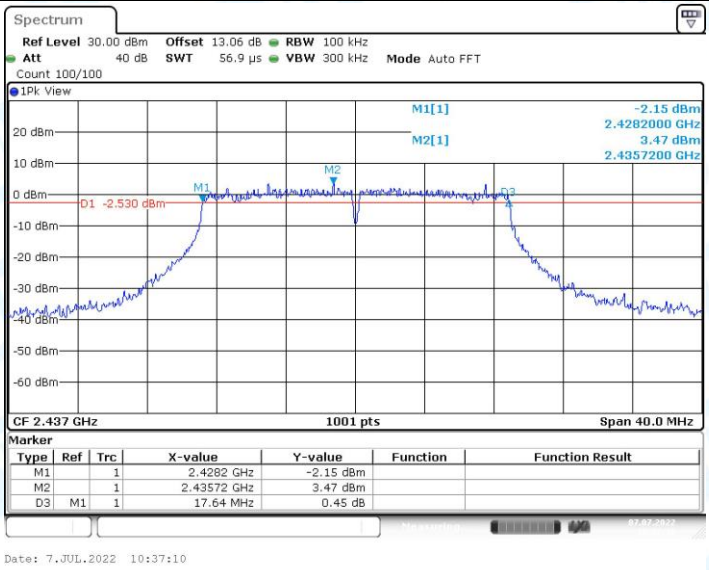


11N20SISO_Ant1_2412



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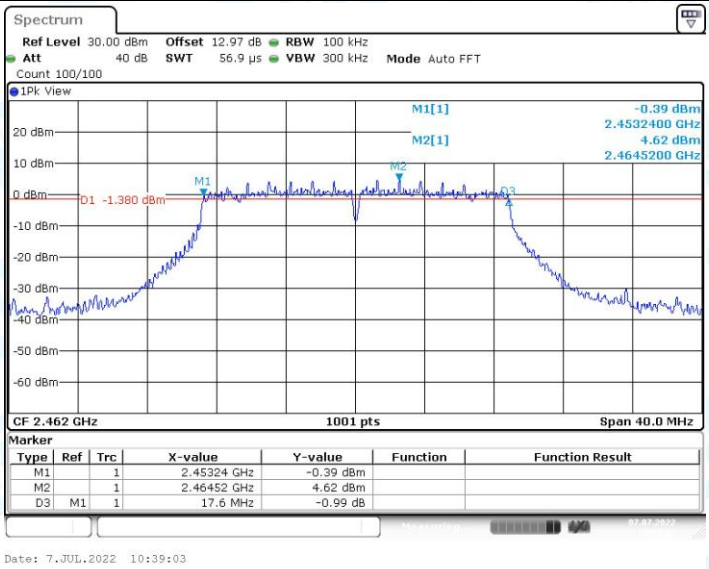


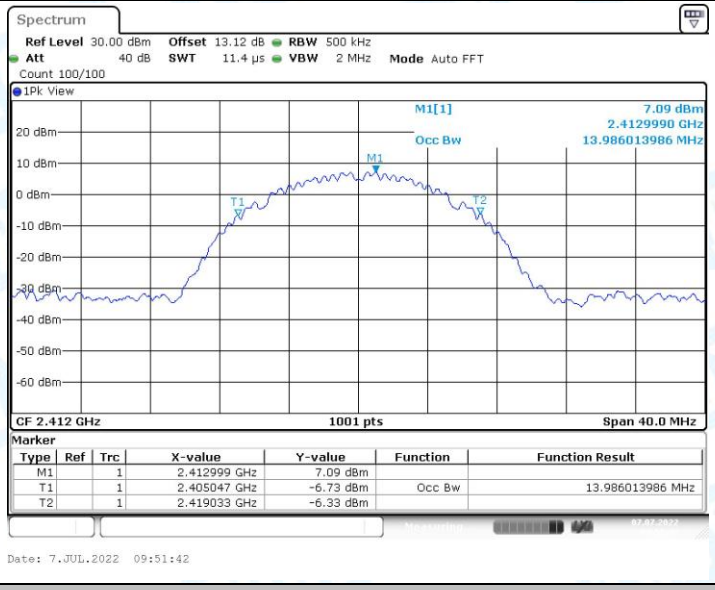
11N20SISO_Ant1_2462

2. Occupied Channel Bandwidth

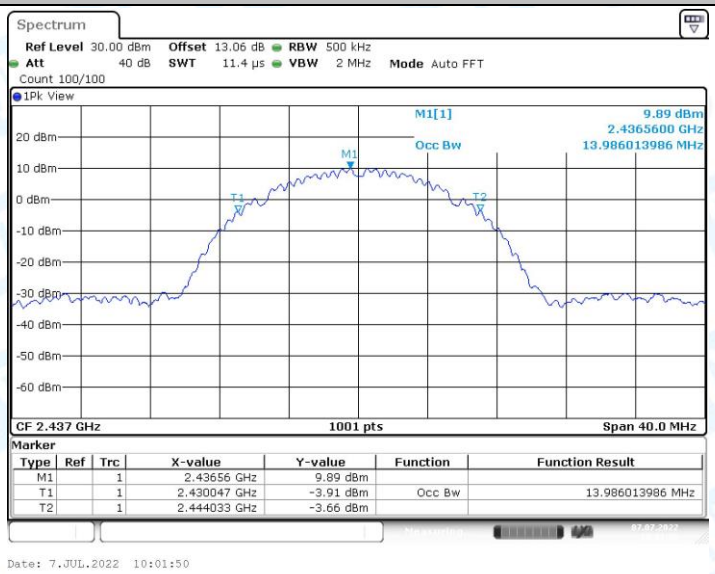
2.1.Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.986	2405.047	2419.033	---	---
		2437	13.986	2430.047	2444.033	---	---
		2462	13.946	2455.087	2469.033	---	---
11G	Ant1	2412	17.383	2403.329	2420.711	---	---
		2437	17.023	2428.369	2445.392	---	---
		2462	17.063	2453.528	2470.591	---	---
11N20SISO	Ant1	2412	18.262	2402.889	2421.151	---	---
		2437	18.422	2427.849	2446.271	---	---
		2462	18.302	2452.889	2471.191	---	---

2.2.Test Graphs



11B_Ant1_2412



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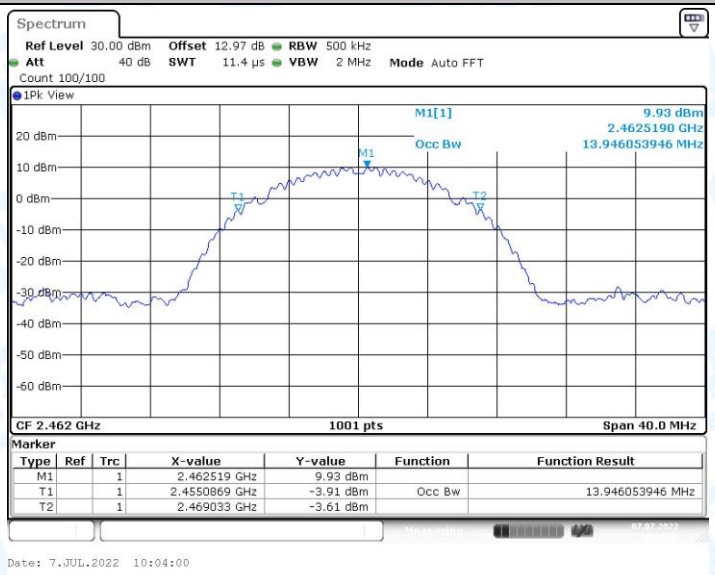

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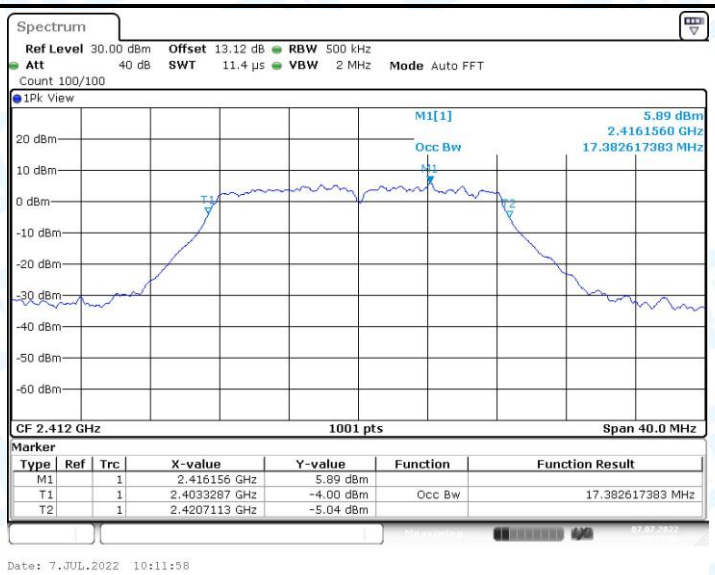

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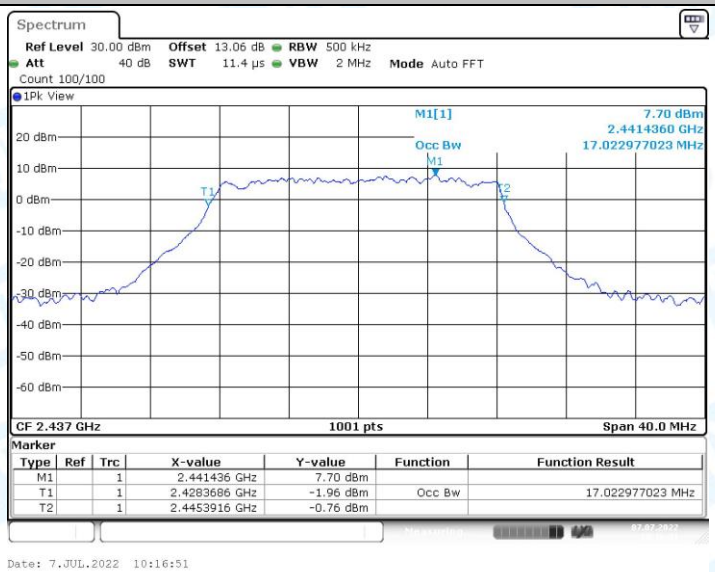

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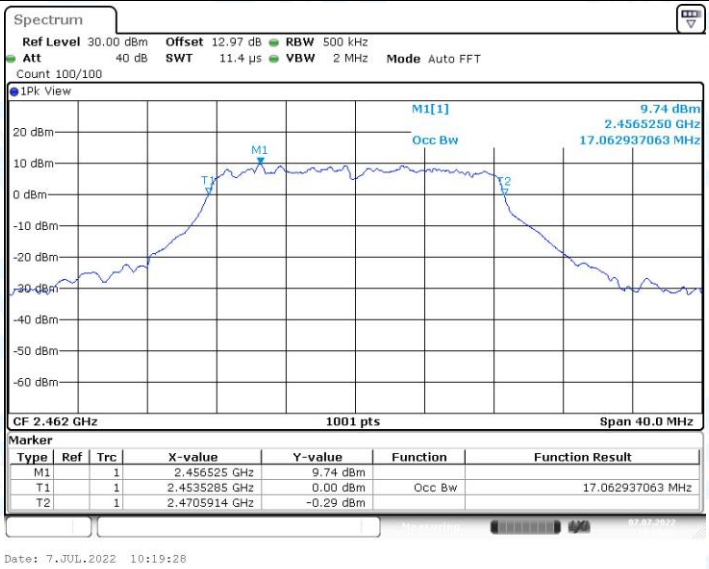
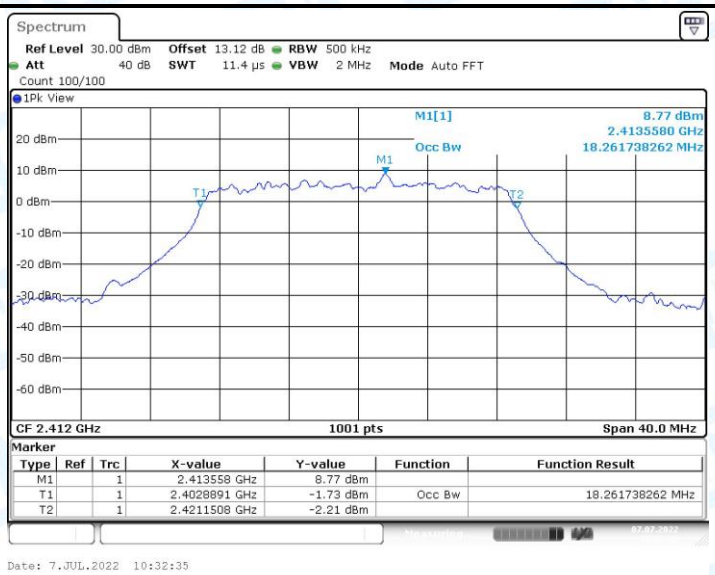
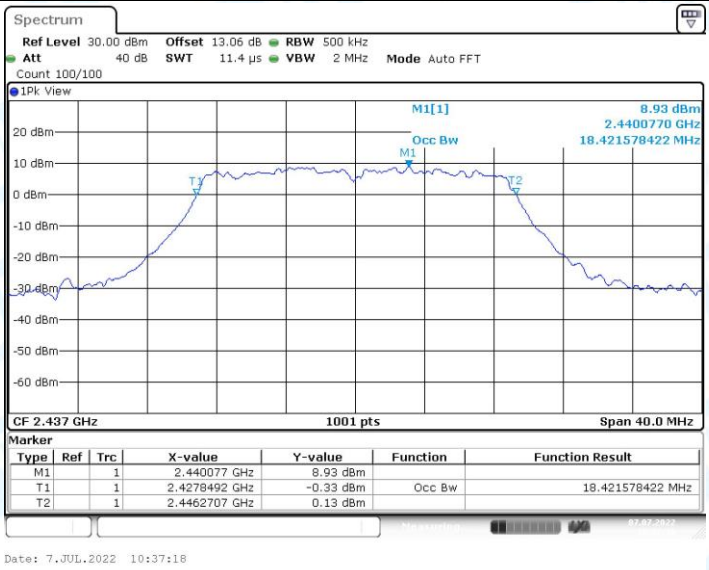


11G_Ant1_2462



11N20SISO_Ant1_2412



11N20SISO_Ant1_2437

11N20SISO_Ant1_2462

3. Maximum conducted output power

3.1.Test Result

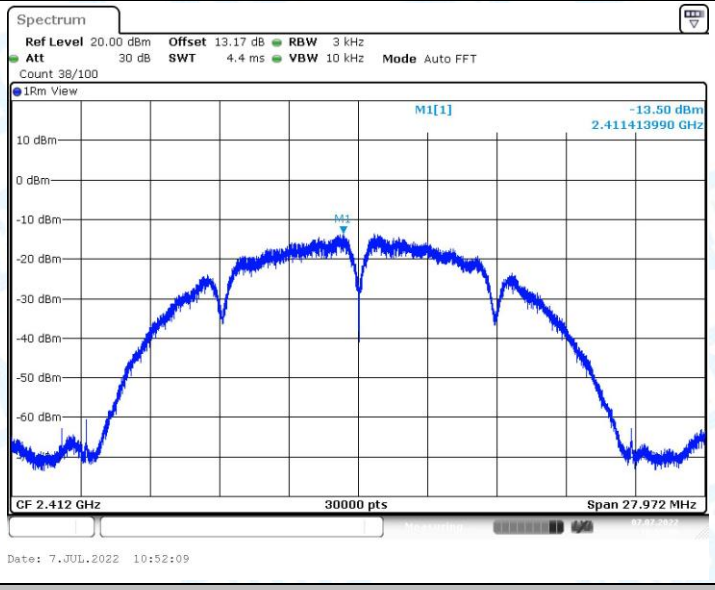
TestMode	Antenna	Channel	Power [dBm]	Limit [dBm]	EIRP [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	17.04	≤30.00	19.04	≤36.00	PASS
		2437	17.00	≤30.00	19.00	≤36.00	PASS
		2462	16.86	≤30.00	18.86	≤36.00	PASS
11G	Ant1	2412	16.55	≤30.00	18.55	≤36.00	PASS
		2437	16.62	≤30.00	18.62	≤36.00	PASS
		2462	16.66	≤30.00	18.66	≤36.00	PASS
11N20SISO	Ant1	2412	16.15	≤30.00	18.15	≤36.00	PASS
		2437	16.61	≤30.00	18.61	≤36.00	PASS
		2462	16.72	≤30.00	18.72	≤36.00	PASS

4. Maximum power spectral density

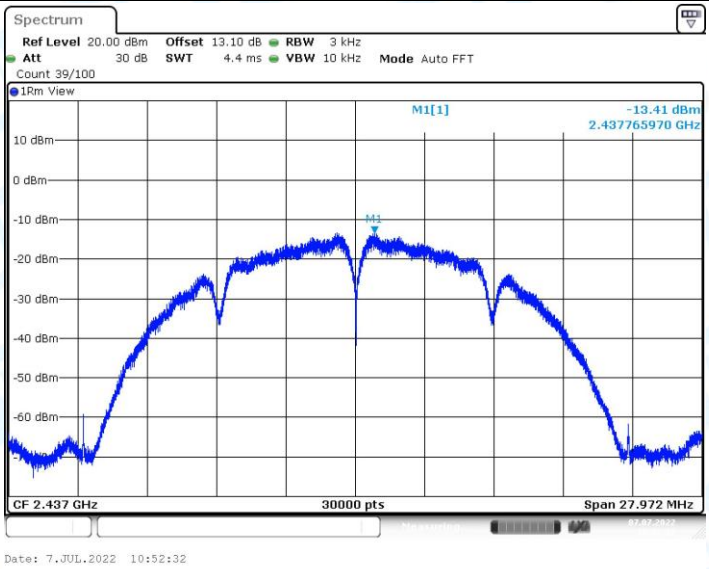
4.1.Test Result

TestMode	Antenna	Channel	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-13.5	≤8.00	PASS
		2437	-13.41	≤8.00	PASS
		2462	-13.41	≤8.00	PASS
11G	Ant1	2412	-14.33	≤8.00	PASS
		2437	-14.55	≤8.00	PASS
		2462	-14.97	≤8.00	PASS
11N20SISO	Ant1	2412	-14.69	≤8.00	PASS
		2437	-15.04	≤8.00	PASS
		2462	-14.28	≤8.00	PASS

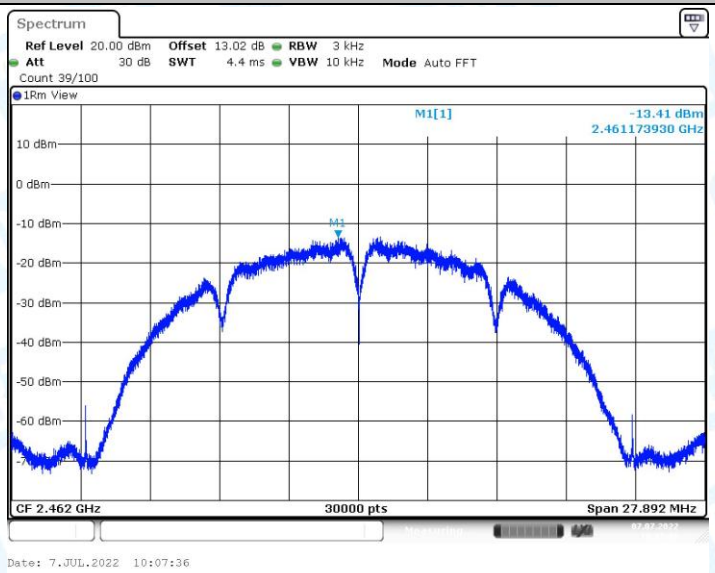
4.2.Test Graphs



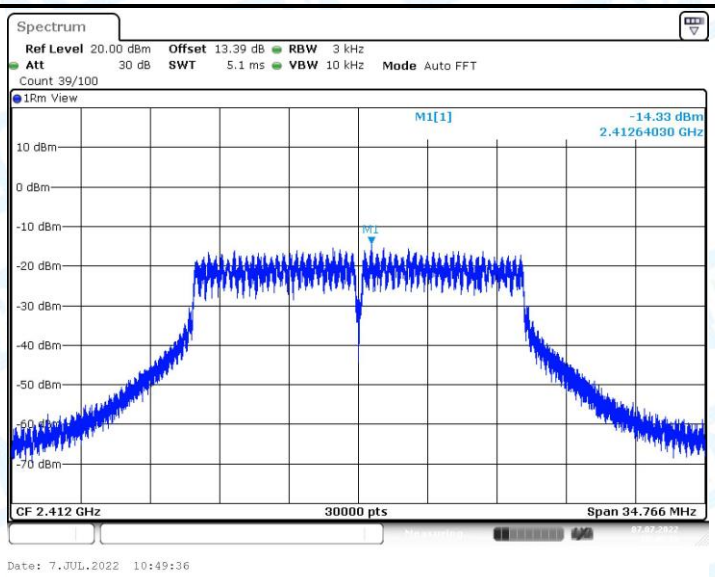
11B_Ant1_2412



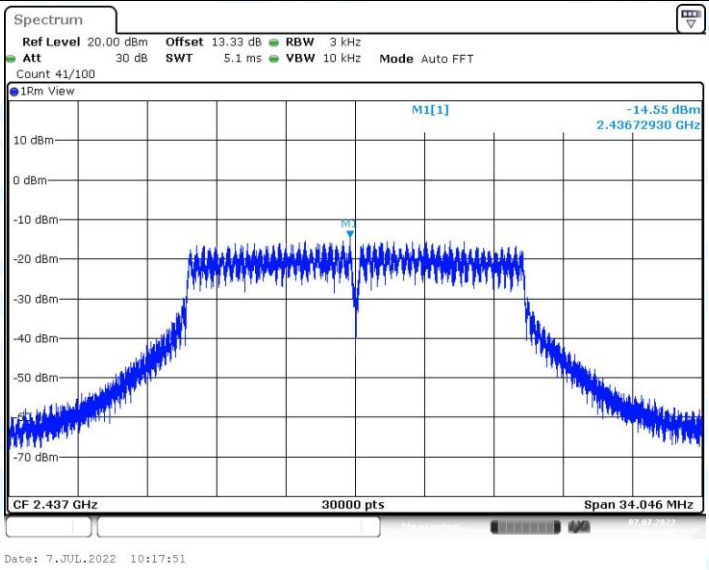
11B_Ant1_2437



11B_Ant1_2462



11G_Ant1_2412



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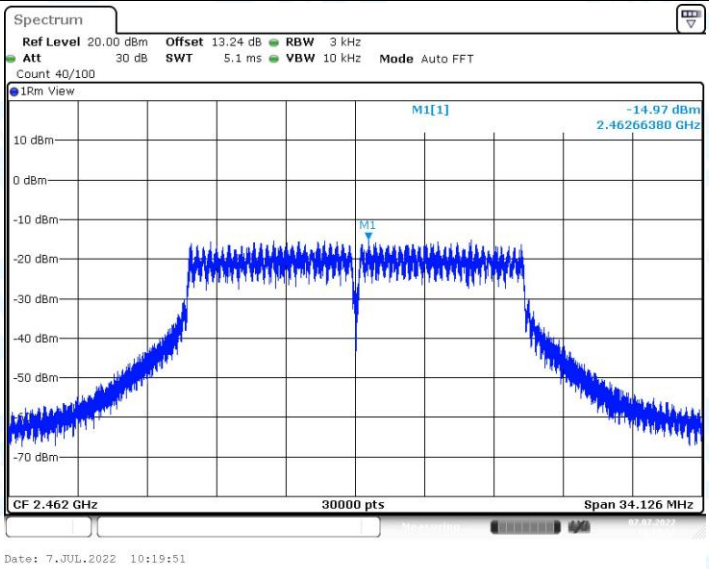
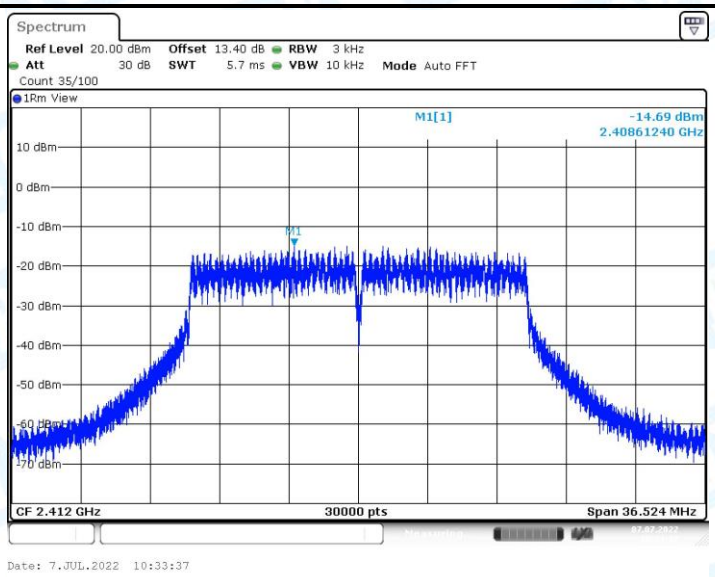
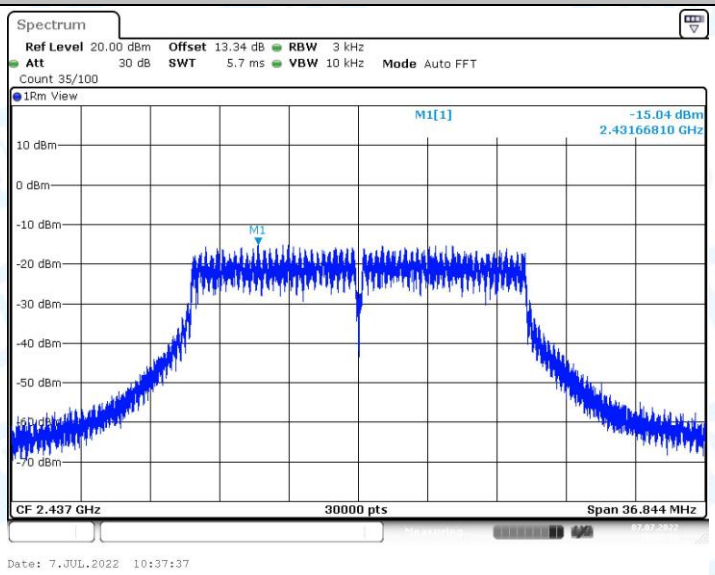


11G_Ant1_2462



11N20SISO_Ant1_2412



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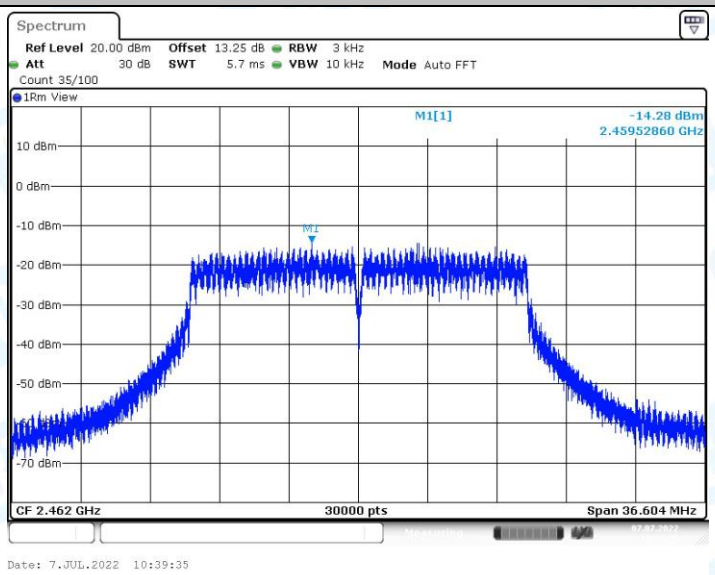


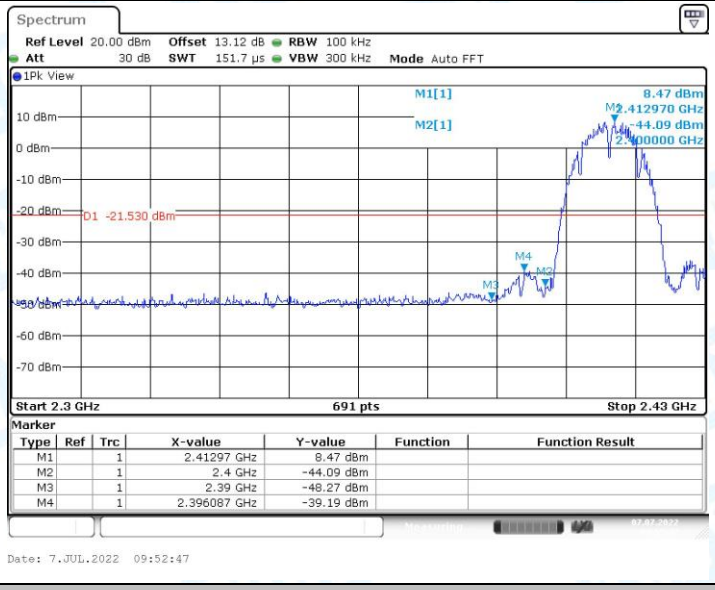
11N20SISO_Ant1_2462

5. Band edge measurements

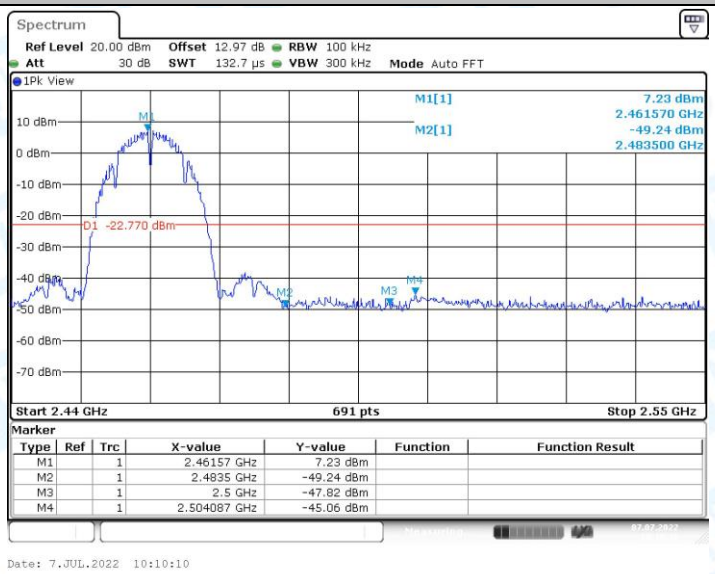
5.1.Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	8.47	-39.19	≤-21.53	PASS
		High	2462	7.23	-45.06	≤-22.77	PASS
11G	Ant1	Low	2412	-1.13	-33.89	≤-31.13	PASS
		High	2462	2.33	-37.47	≤-27.67	PASS
11N20SISO	Ant1	Low	2412	4.77	-31.07	≤-25.23	PASS
		High	2462	4.11	-36.68	≤-25.89	PASS

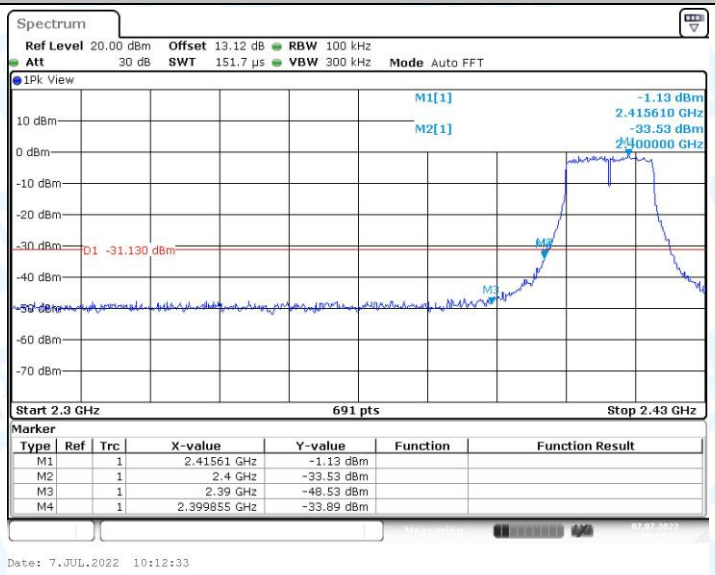
5.2.Test Graphs



11B_Ant1_Low_2412



11B_Ant1_High_2462



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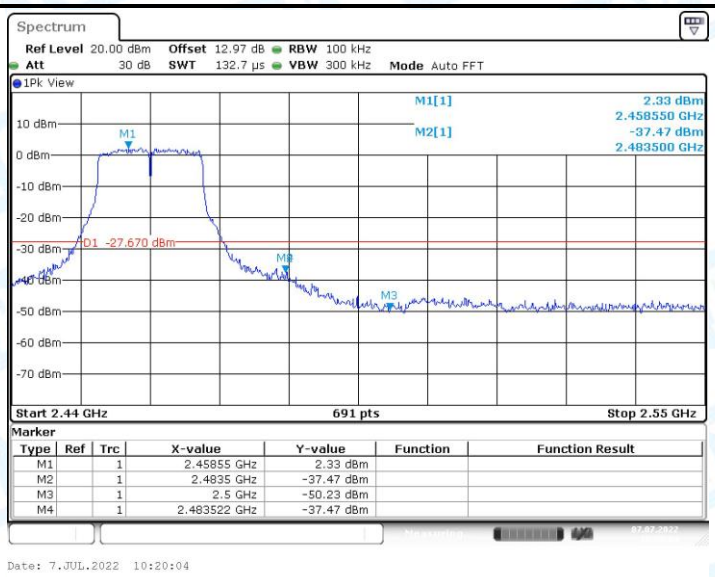
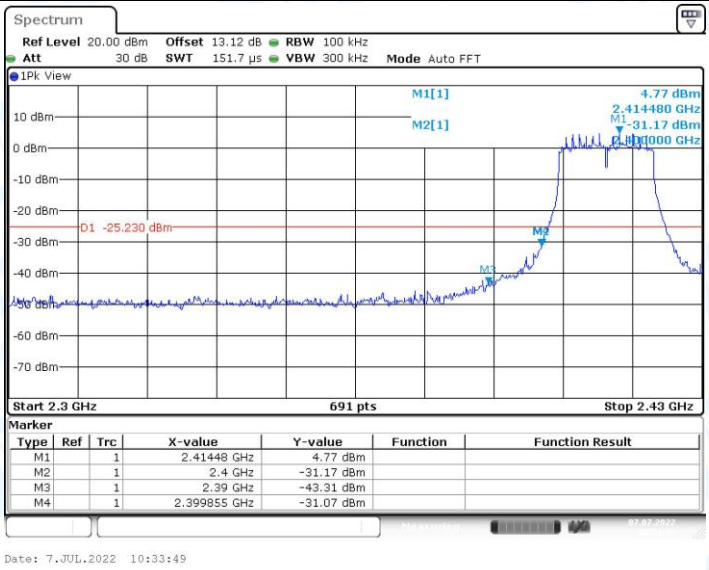
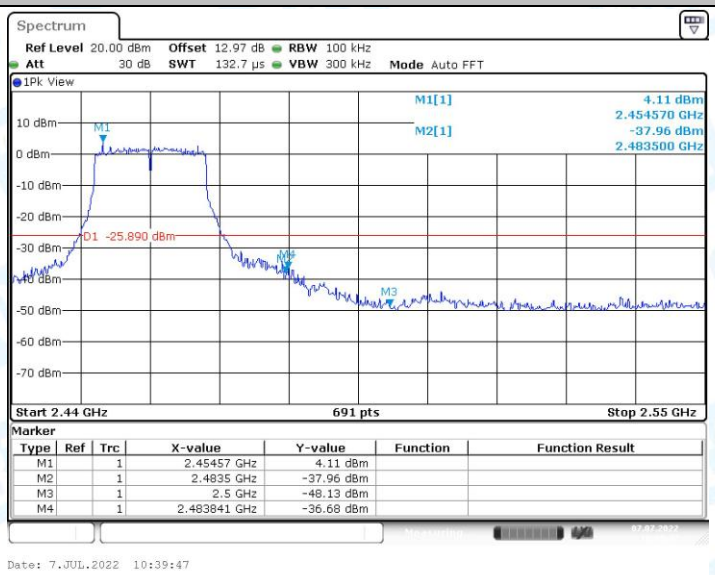


11G_Ant1_High_2462



11N20SISO_Ant1_Low_2412



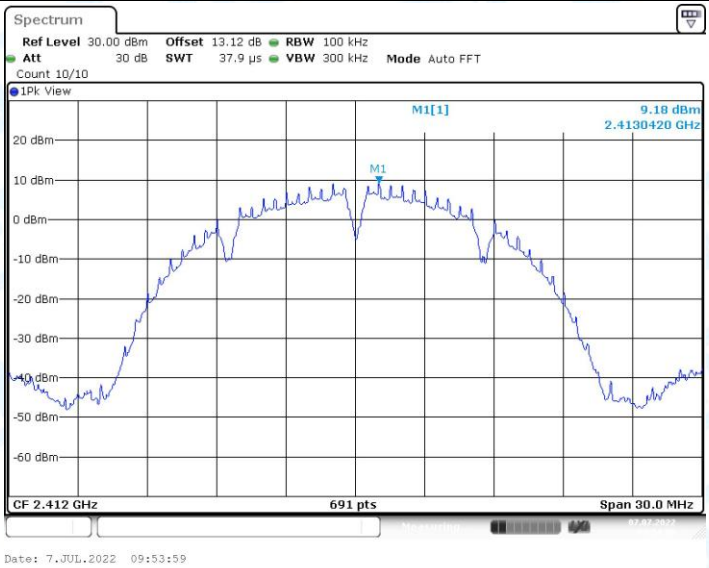
11N20SISO_Ant1_High_2462

6.Conducted Spurious Emission

6.1.Test Result

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	9.18	9.18	---	PASS
			30~1000	9.18	-50.81	≤-20.82	PASS
			1000~26500	9.18	-45.72	≤-20.82	PASS
		2437	Reference	9.13	9.13	---	PASS
			30~1000	9.13	-51.77	≤-20.87	PASS
			1000~26500	9.13	-43.18	≤-20.87	PASS
		2462	Reference	8.15	8.15	---	PASS
			30~1000	8.15	-52.2	≤-21.85	PASS
			1000~26500	8.15	-45.98	≤-21.85	PASS
11G	Ant1	2412	Reference	1.94	1.94	---	PASS
			30~1000	1.94	-51.93	≤-28.06	PASS
			1000~26500	1.94	-44.42	≤-28.06	PASS
		2437	Reference	5.50	5.50	---	PASS
			30~1000	5.50	-51.62	≤-24.5	PASS
			1000~26500	5.50	-45.72	≤-24.5	PASS
		2462	Reference	4.89	4.89	---	PASS
			30~1000	4.89	-52.31	≤-25.11	PASS
			1000~26500	4.89	-44.75	≤-25.11	PASS
11N20SISO	Ant1	2412	Reference	3.37	3.37	---	PASS
			30~1000	3.37	-50.85	≤-26.63	PASS
			1000~26500	3.37	-45.81	≤-26.63	PASS
		2437	Reference	5.01	5.01	---	PASS
			30~1000	5.01	-51.57	≤-24.99	PASS
			1000~26500	5.01	-45.96	≤-24.99	PASS
		2462	Reference	4.48	4.48	---	PASS
			30~1000	4.48	-52.09	≤-25.52	PASS
			1000~26500	4.48	-44.82	≤-25.52	PASS

6.2.Test Graphs



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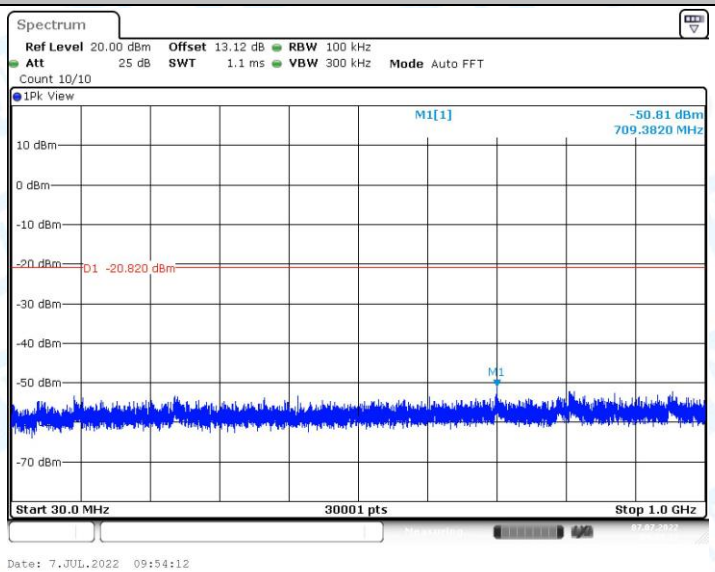
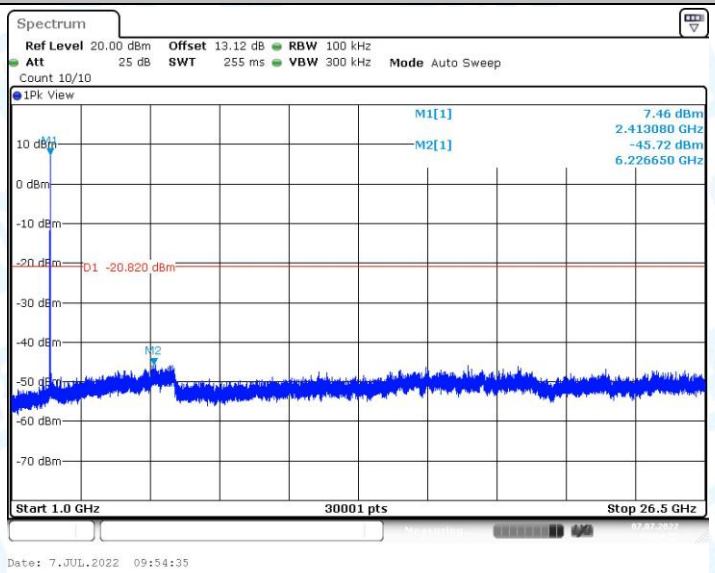
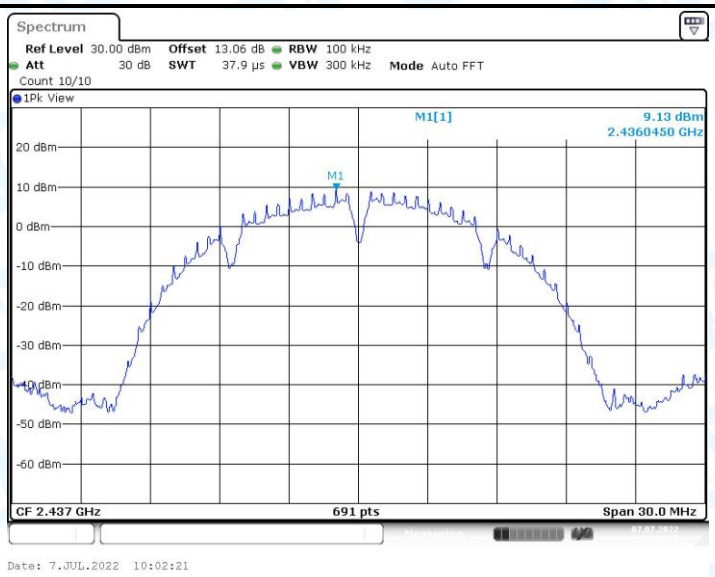


11B_Ant1_2412_30~1000



11B_Ant1_2412_1000~26500



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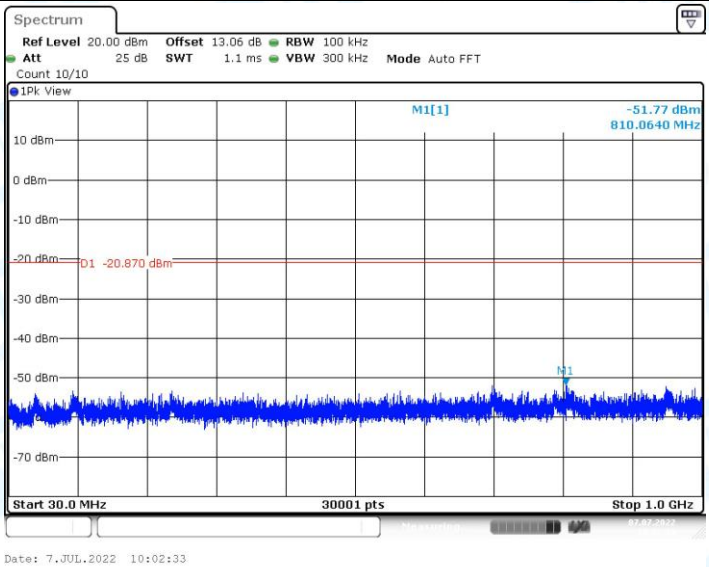
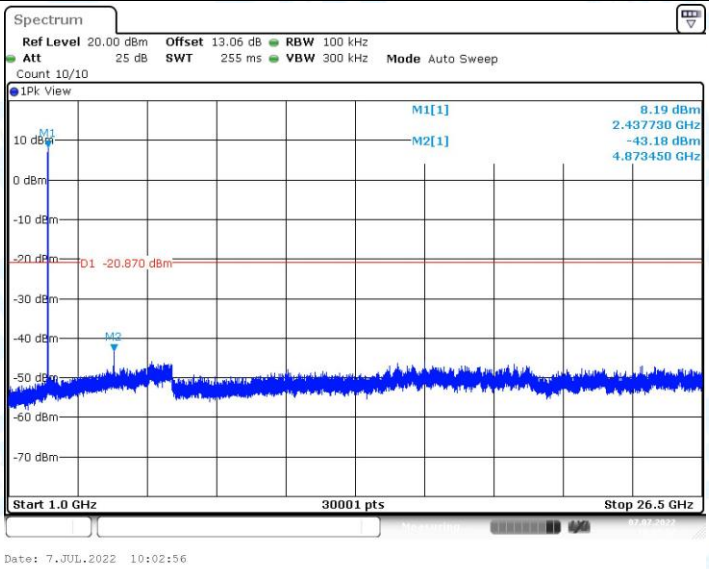


11B_Ant1_2437_30~1000



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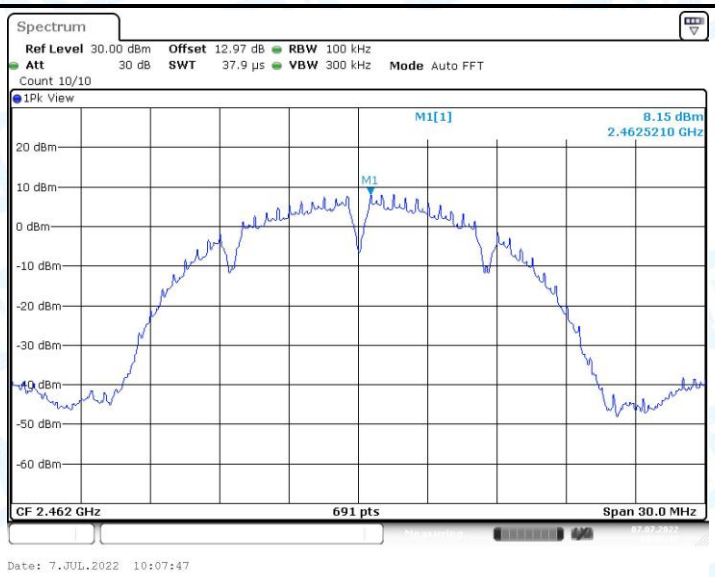

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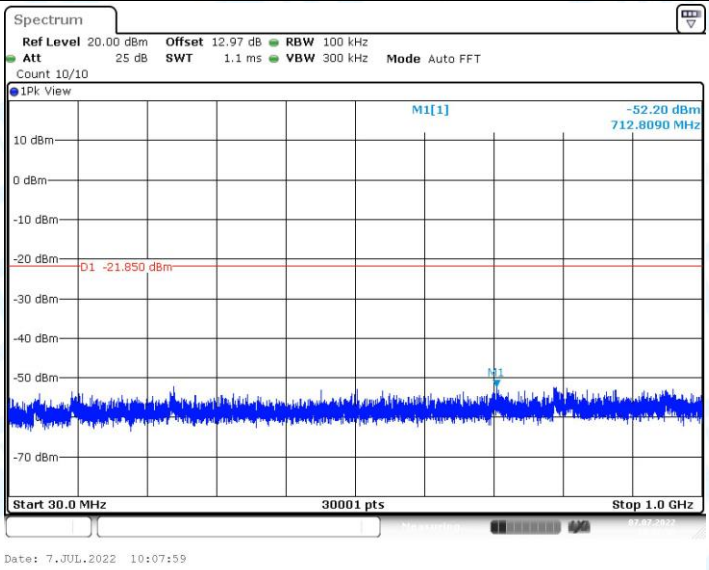

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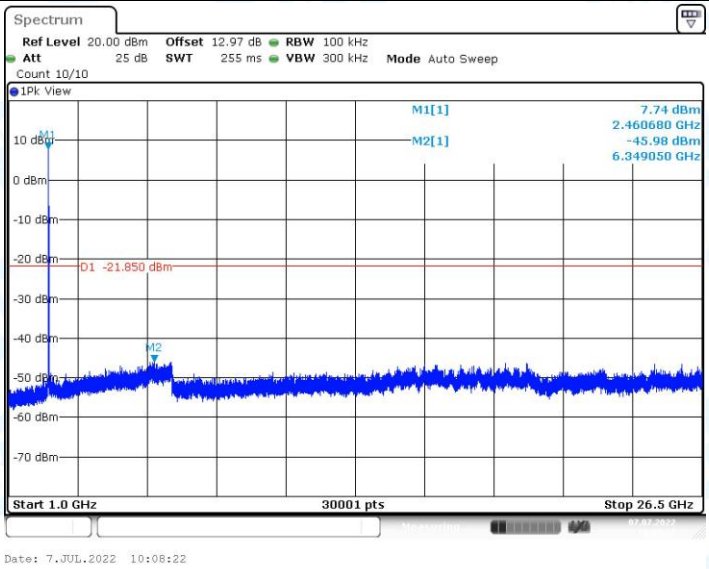

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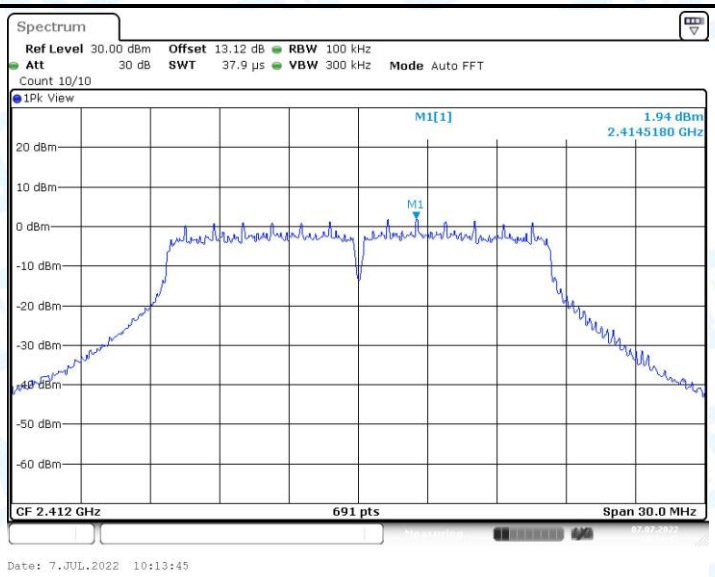

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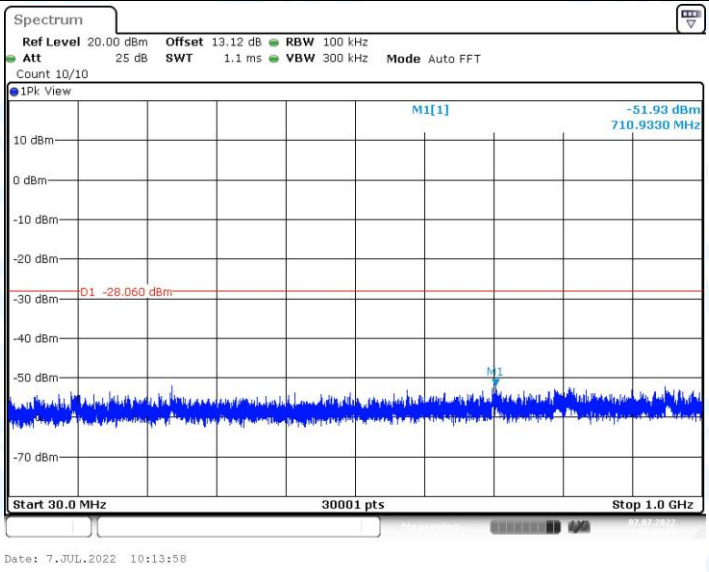

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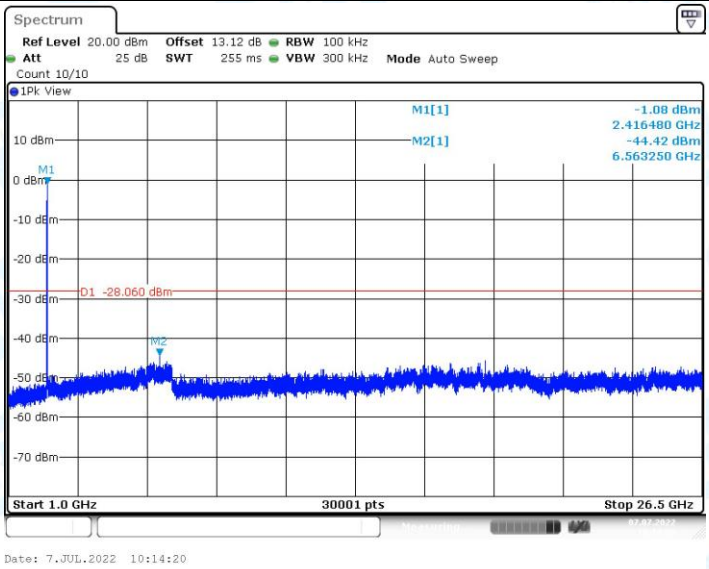

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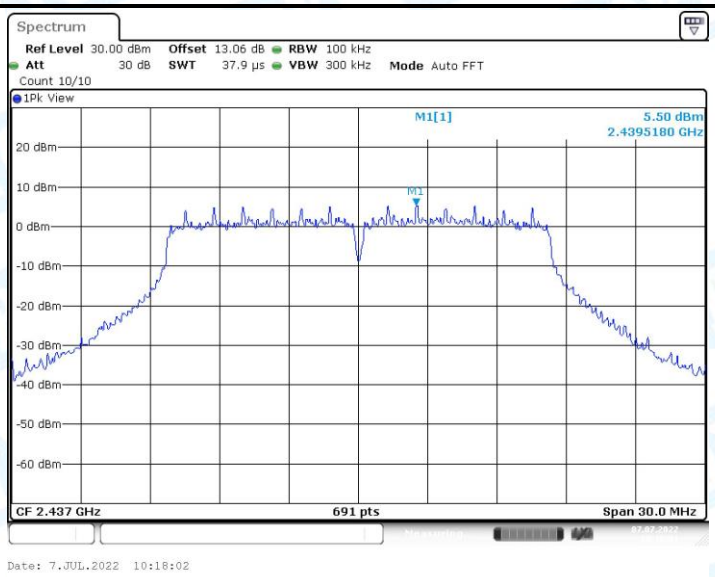

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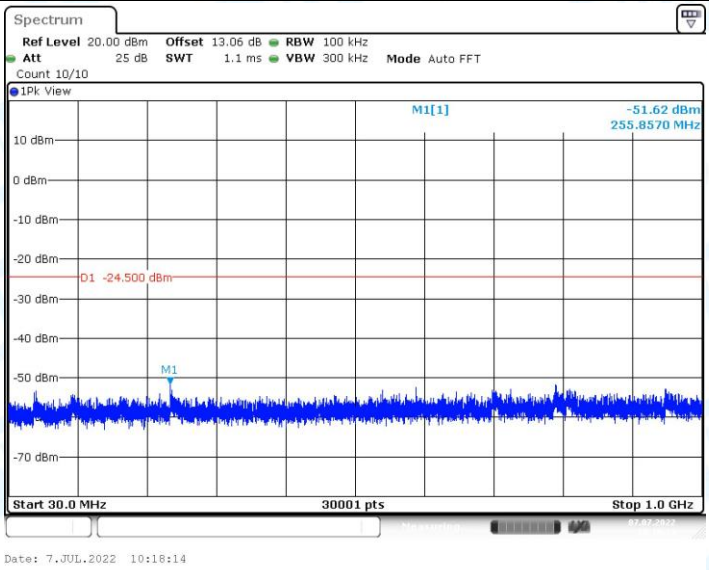

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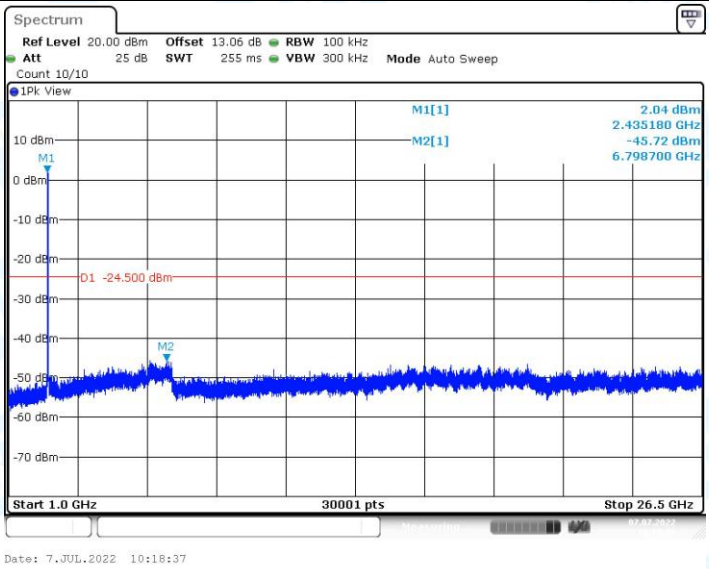

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