

Appendix RF Test Data for BR-EDR

Company : HIFIMAN KUNSHAN TECHNOLOGY GROUP CO., LTD.

EUT : WiFi Planar Magnetic Headphones

Model Number : HE1000 WiFi

Report No. : CTA25111402802

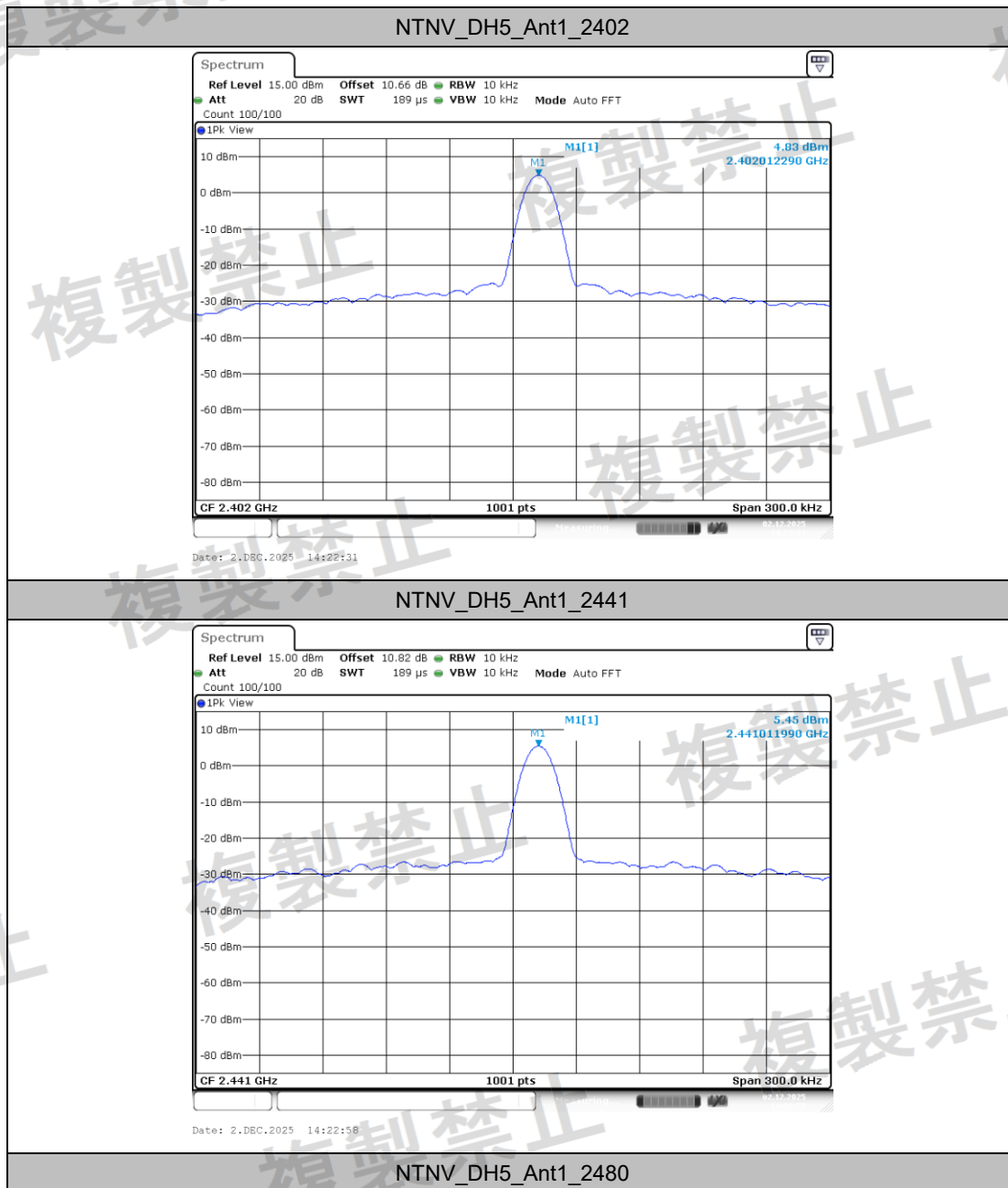
Reviewed By : Eric Wang

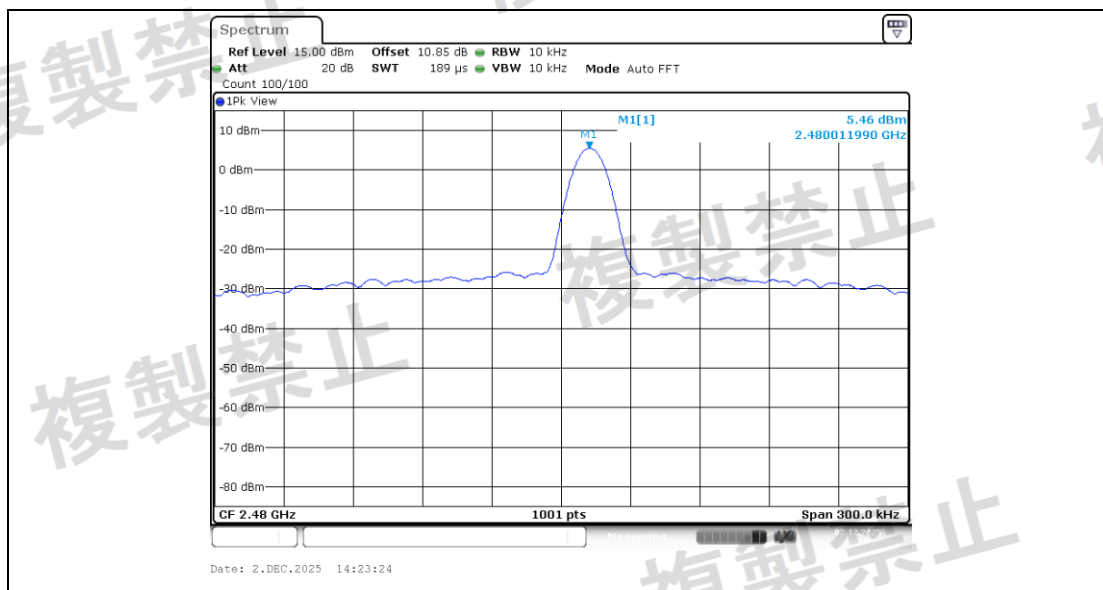
Appendix A: Frequency_Error

Test Result

Test Condition	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	Ant1	2402	5.11657	±50	PASS
		2441	4.91192	±50	PASS
		2480	4.83468	±50	PASS

Test Graphs



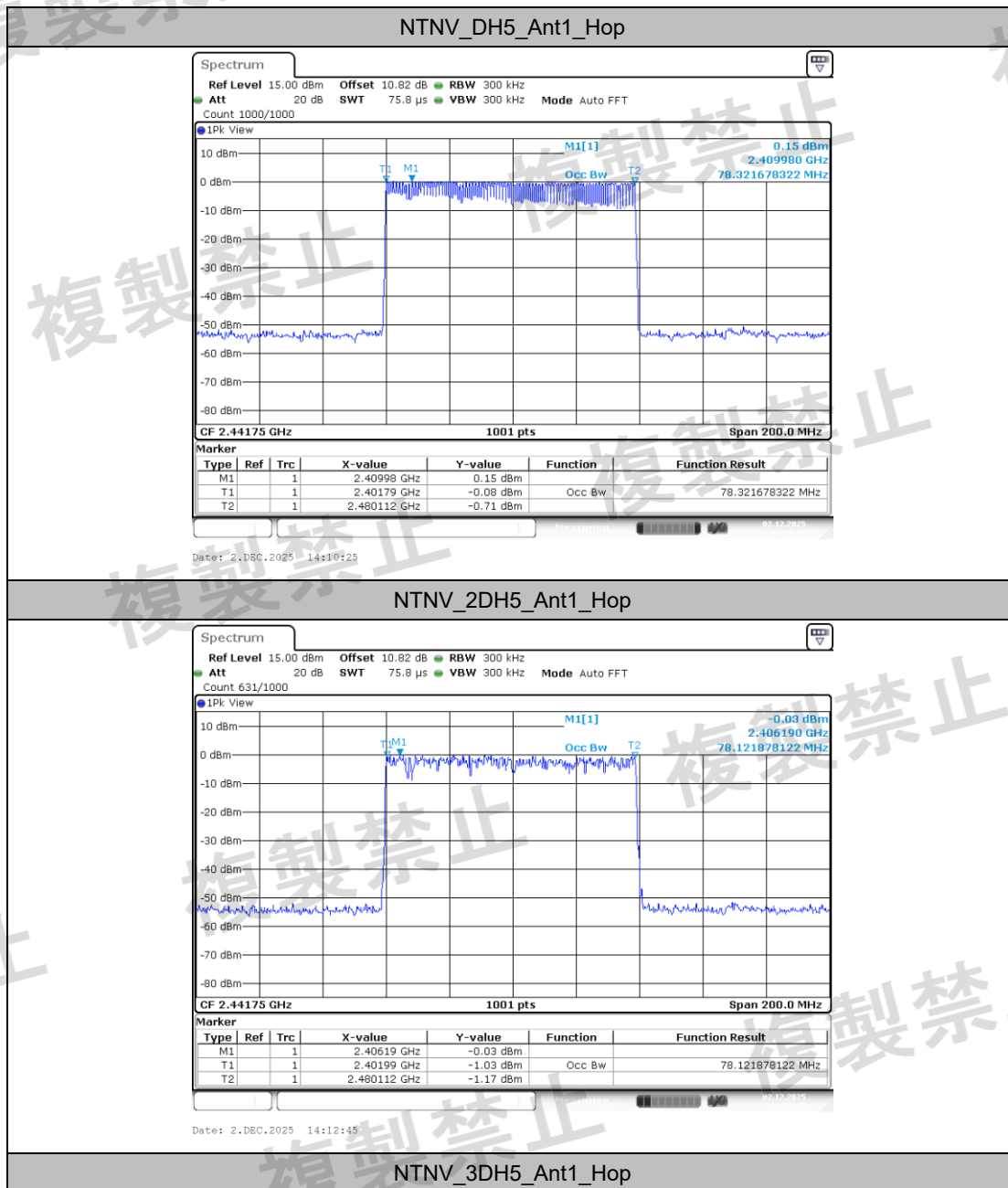


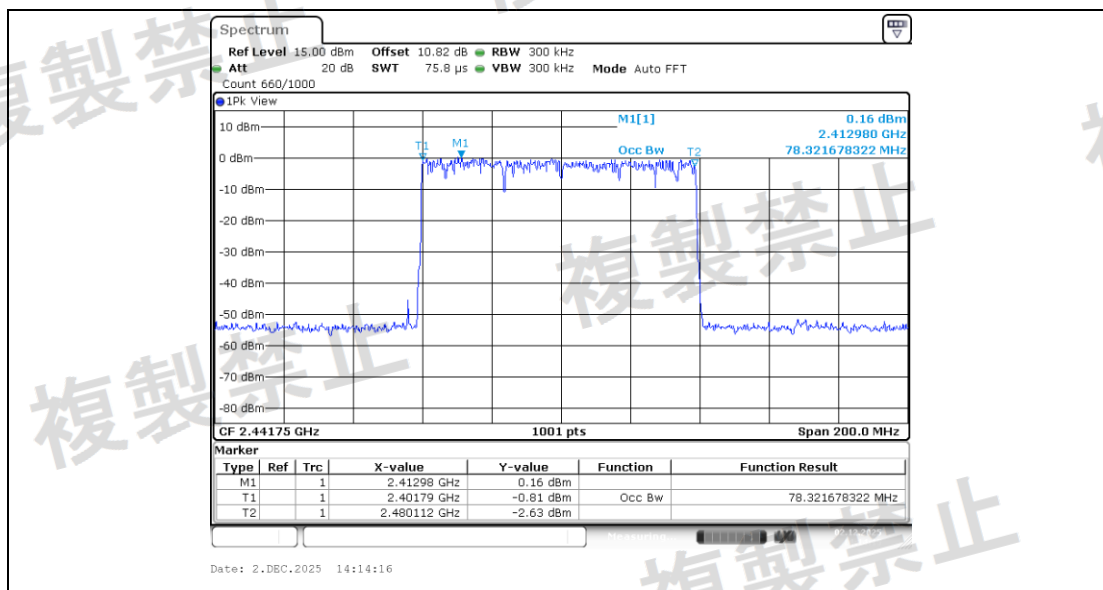
Appendix B: Occupied Bandwidth

Test Result

Test Condition	Test Mode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	DH5	Ant1	Hop	78.322	≤83.5	PASS
	2DH5	Ant1	Hop	78.122	≤83.5	PASS
	3DH5	Ant1	Hop	78.322	≤83.5	PASS

Test Graphs



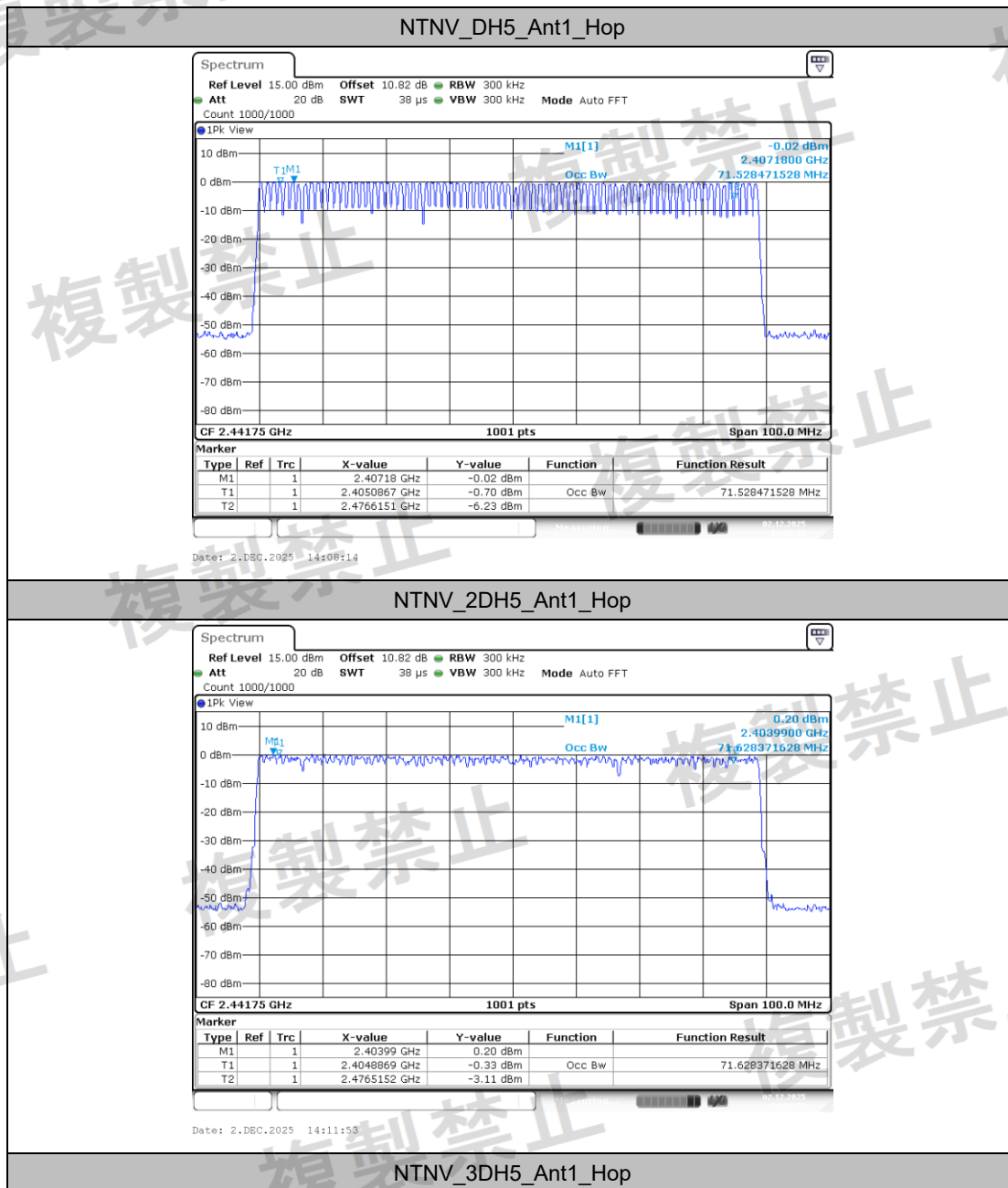


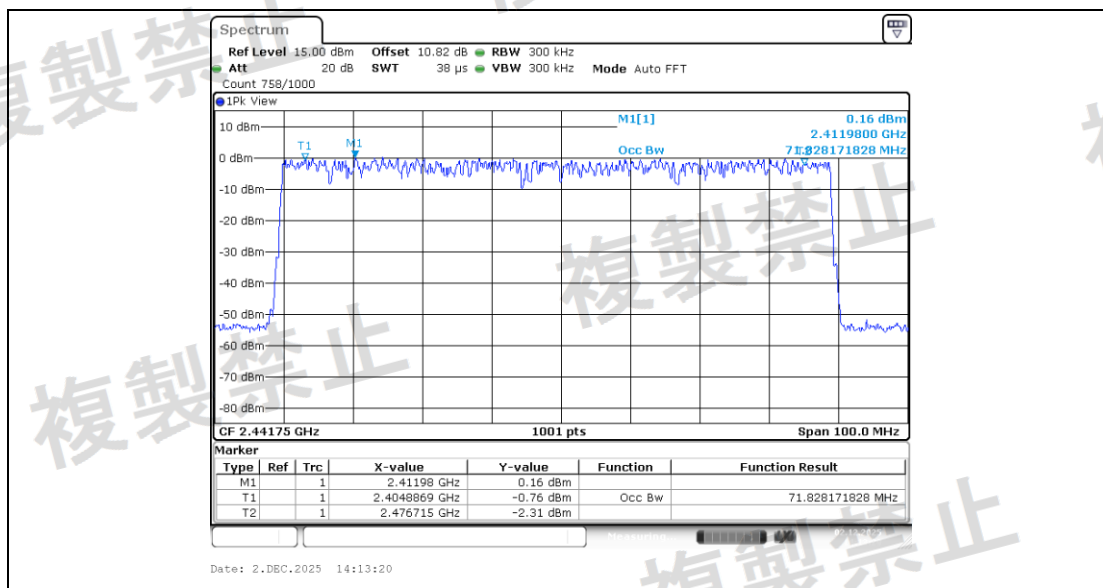
Appendix C: Spread Bandwidth

Test Result

Test Condition	Test Mode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Spread Factor	Limit	Verdict
NTNV	DH5	Ant1	Hop	71.528	≥0.5	71.528	>5	PASS
	2DH5	Ant1	Hop	71.628	≥0.5	71.628	>5	PASS
	3DH5	Ant1	Hop	71.828	≥0.5	71.828	>5	PASS

Test Graphs





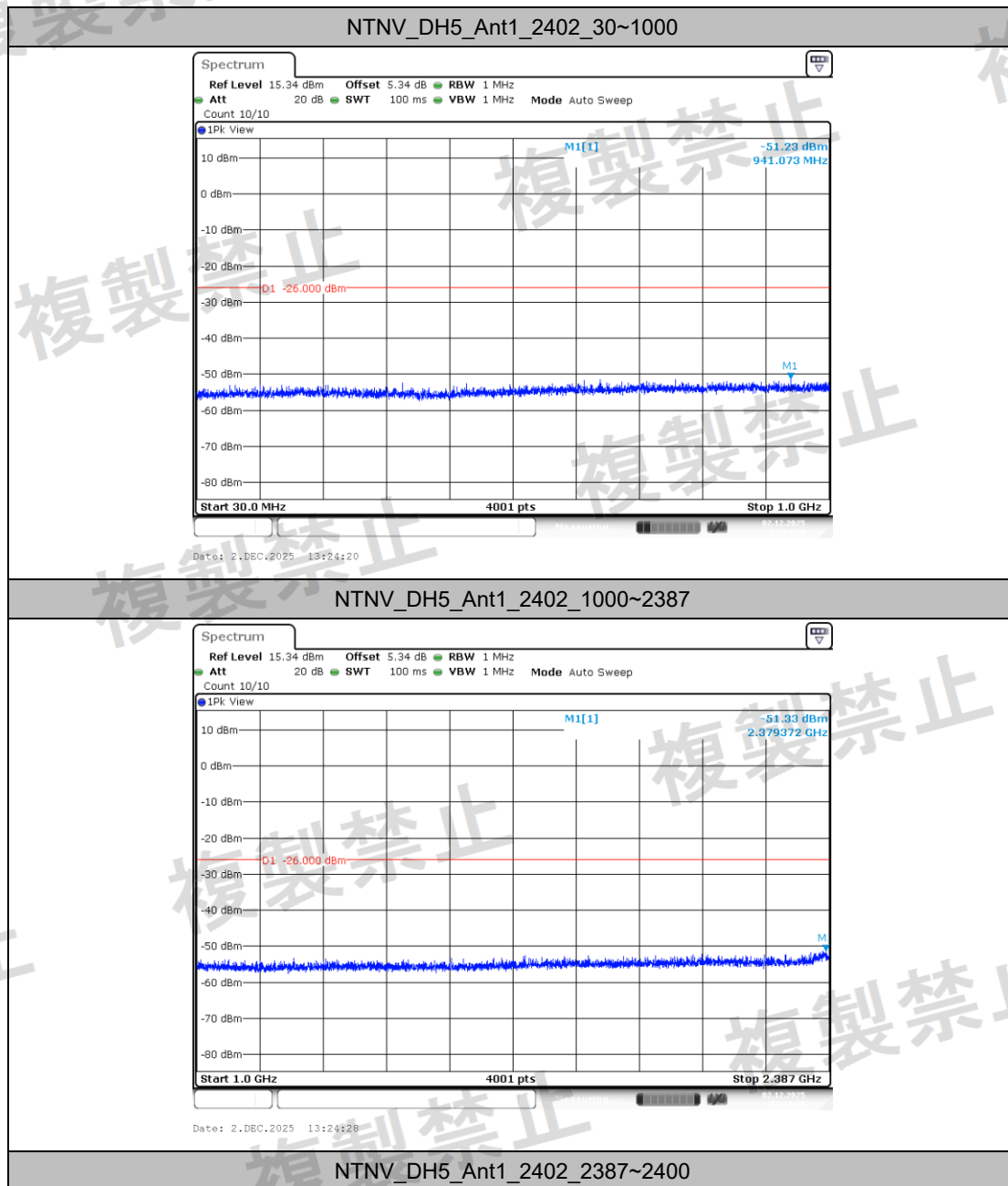
Appendix D: Spurious Emission of TX

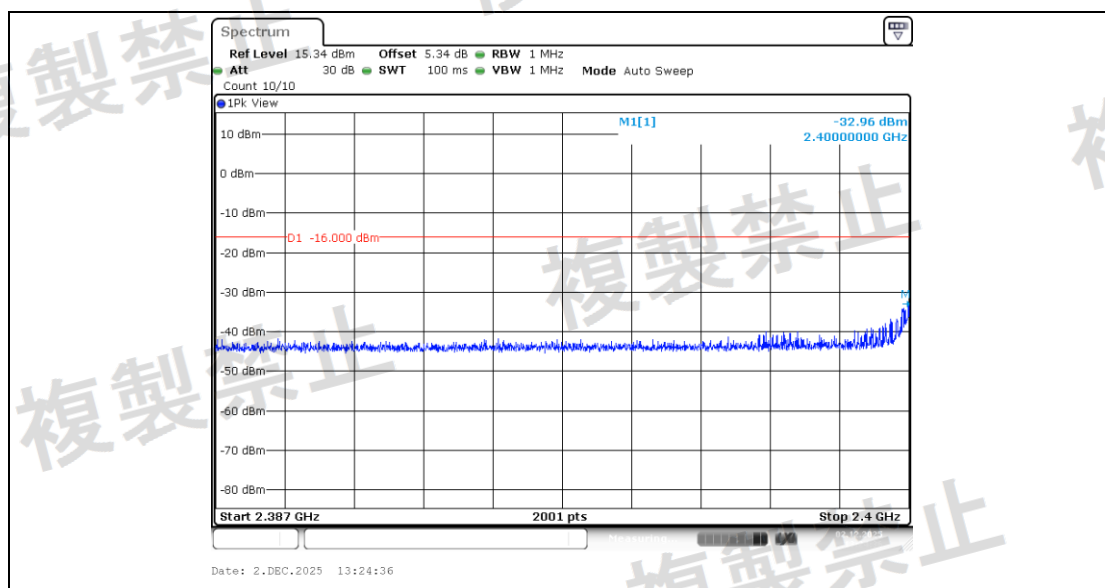
Test Result

Test Condition	Test Mode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	DH5	Ant1	2402	30~1000	941.07	-51.23	≤-26	0.00753	≤2.5	PASS
				1000~2387	2379.37	-51.33	≤-26	0.00736	≤2.5	PASS
				2387~2400	2400.00	-32.96	≤-16	0.50582	≤25	PASS
				2483.5~2496.5	2495.18	-41.75	≤-16	0.06683	≤25	PASS
				2496.5~13000	4804.12	-41.14	≤-26	0.07691	≤2.5	PASS
			2441	30~1000	916.10	-51.59	≤-26	0.00693	≤2.5	PASS
				1000~2387	2145.66	-51.95	≤-26	0.00638	≤2.5	PASS
				2387~2400	2388.71	-41.45	≤-16	0.07161	≤25	PASS
				2483.5~2496.5	2487.95	-41.79	≤-16	0.06622	≤25	PASS
				2496.5~13000	4881.84	-41.03	≤-26	0.07889	≤2.5	PASS
			2480	30~1000	888.94	-51.62	≤-26	0.00689	≤2.5	PASS
				1000~2387	2094.34	-51.93	≤-26	0.00641	≤2.5	PASS
				2387~2400	2387.06	-41.72	≤-16	0.06730	≤25	PASS
				2483.5~2496.5	2484.55	-38.78	≤-16	0.13243	≤25	PASS
				2496.5~13000	4960.10	-41.60	≤-26	0.06918	≤2.5	PASS
	2DH5	Ant1	2402	30~1000	867.84	-51.23	≤-26	0.00753	≤2.5	PASS
				1000~2387	2363.77	-50.28	≤-26	0.00938	≤2.5	PASS
				2387~2400	2400.00	-25.66	≤-16	2.71644	≤25	PASS
				2483.5~2496.5	2484.74	-41.83	≤-16	0.06561	≤25	PASS
				2496.5~13000	4803.59	-39.46	≤-26	0.11324	≤2.5	PASS
			2441	30~1000	416.30	-51.38	≤-26	0.00728	≤2.5	PASS
				1000~2387	2289.56	-51.66	≤-26	0.00682	≤2.5	PASS
				2387~2400	2398.41	-40.08	≤-16	0.09817	≤25	PASS
				2483.5~2496.5	2490.12	-41.55	≤-16	0.06998	≤25	PASS
				2496.5~13000	4881.84	-40.55	≤-26	0.08810	≤2.5	PASS
			2480	30~1000	953.93	-50.70	≤-26	0.00851	≤2.5	PASS
				1000~2387	2277.77	-51.89	≤-26	0.00647	≤2.5	PASS
				2387~2400	2395.63	-41.12	≤-16	0.07727	≤25	PASS
				2483.5~2496.5	2484.53	-39.48	≤-16	0.11272	≤25	PASS
				2496.5~13000	4960.10	-40.43	≤-26	0.09057	≤2.5	PASS
	3DH5	Ant1	2402	30~1000	990.30	-50.24	≤-26	0.00946	≤2.5	PASS
				1000~2387	2373.13	-51.46	≤-26	0.00714	≤2.5	PASS
				2387~2400	2400.00	-25.94	≤-16	2.54683	≤25	PASS
				2483.5~2496.5	2484.25	-41.08	≤-16	0.07798	≤25	PASS
				2496.5~13000	4804.12	-39.93	≤-26	0.10162	≤2.5	PASS
			2441	30~1000	964.84	-51.14	≤-26	0.00769	≤2.5	PASS
				1000~2387	2157.10	-50.67	≤-26	0.00857	≤2.5	PASS

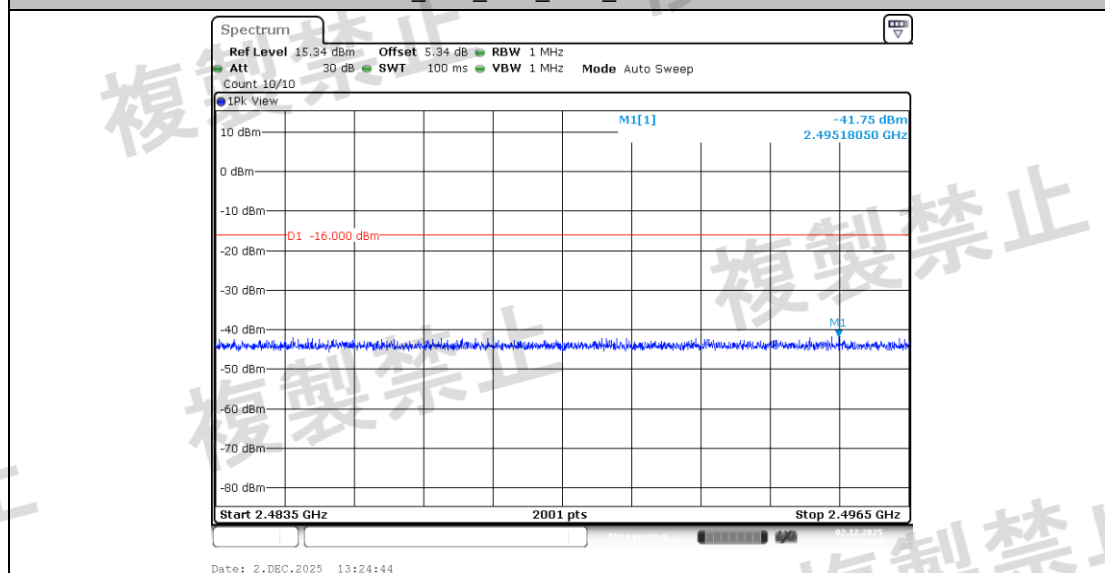
			2387~2400	2391.10	-41.20	≤-16	0.07586	≤25	PASS
			2483.5~2496.5	2490.73	-41.71	≤-16	0.06745	≤25	PASS
			2496.5~13000	4881.32	-39.58	≤-26	0.11015	≤2.5	PASS
		2480	30~1000	741.74	-51.26	≤-26	0.00748	≤2.5	PASS
			1000~2387	2100.93	-51.69	≤-26	0.00678	≤2.5	PASS
			2387~2400	2397.56	-41.48	≤-16	0.07112	≤25	PASS
			2483.5~2496.5	2484.46	-38.71	≤-16	0.13459	≤25	PASS
			2496.5~13000	4959.57	-38.75	≤-26	0.13335	≤2.5	PASS

Test Graphs

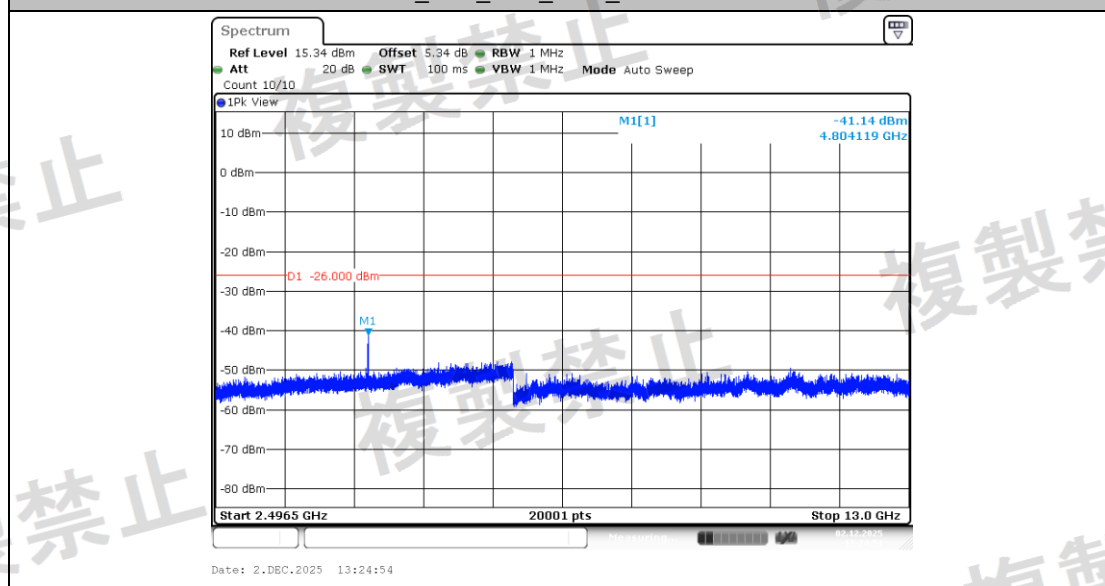


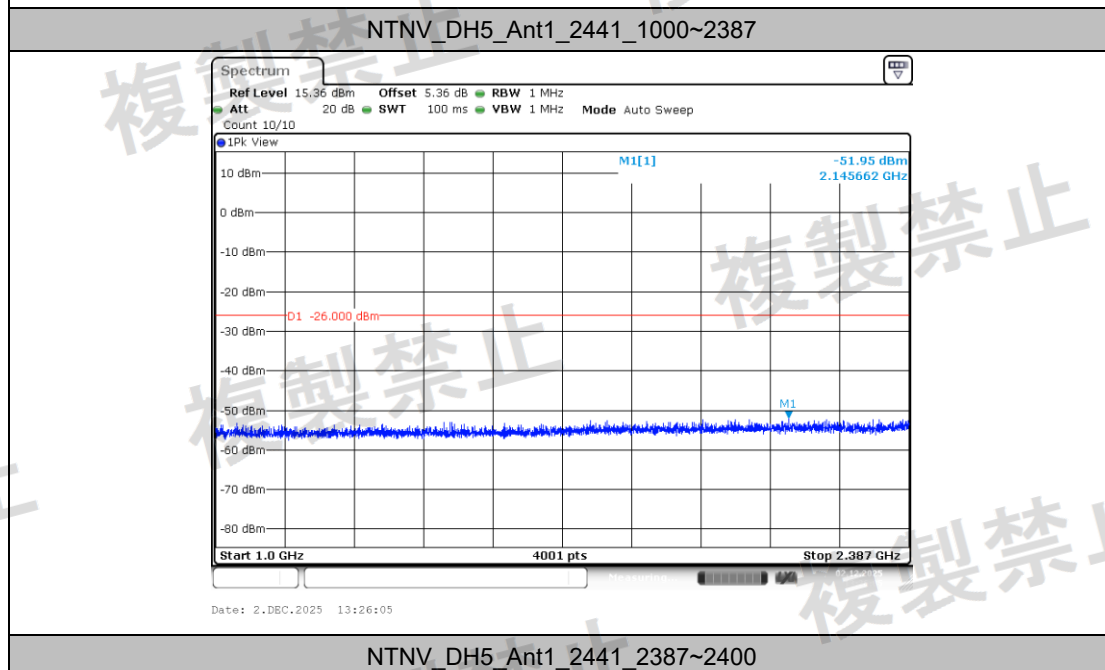
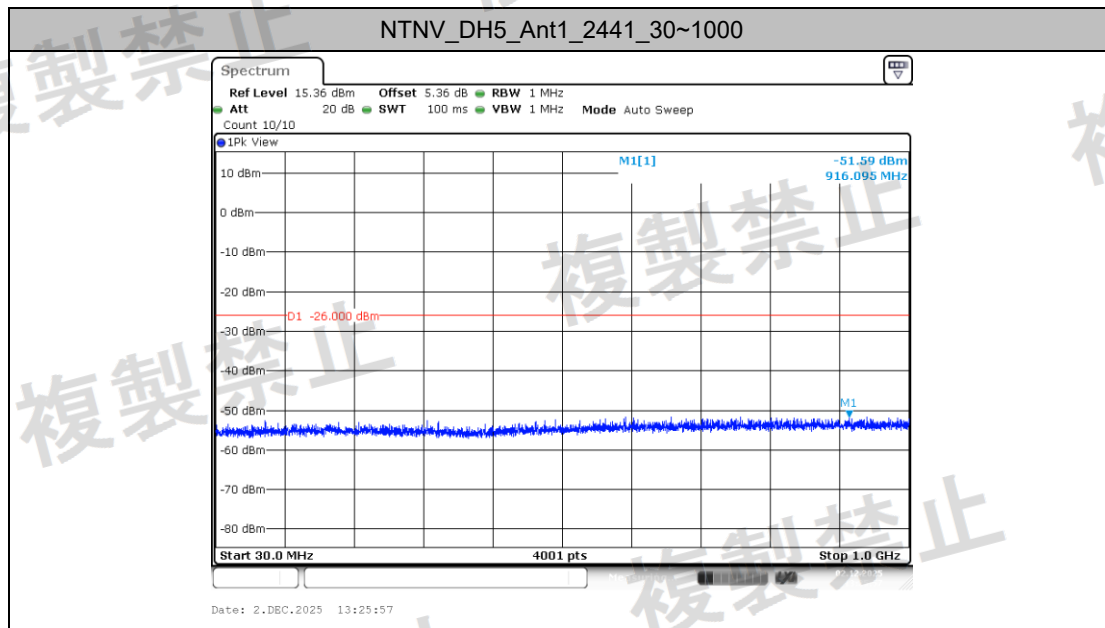


NTNV_DH5_Ant1_2402_2483.5~2496.5

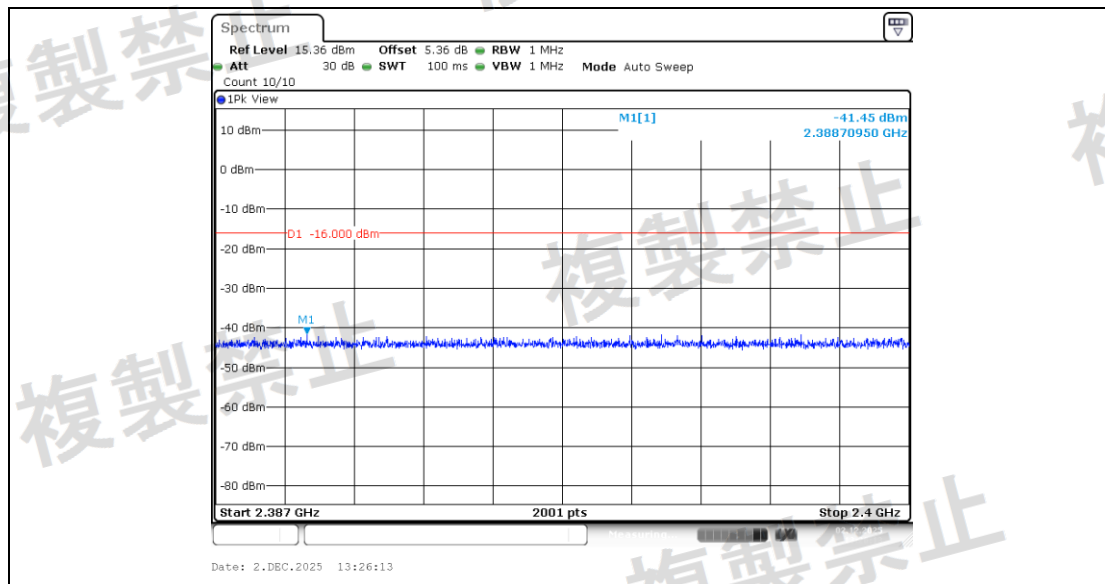


NTNV_DH5_Ant1_2402_2496.5~13000

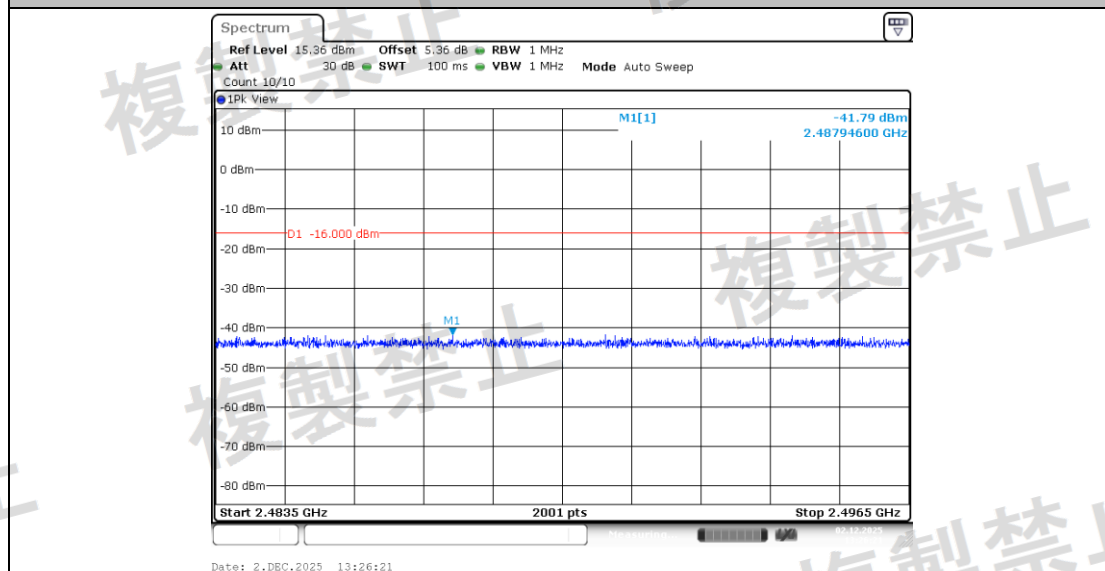




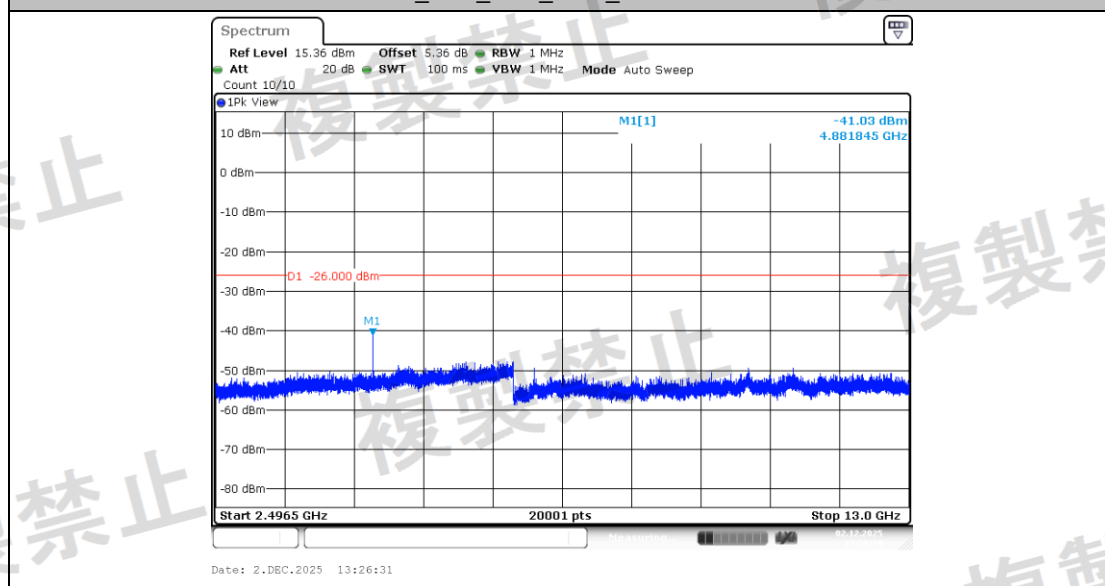
NTNV_DH5_Ant1_2441_2387~2400

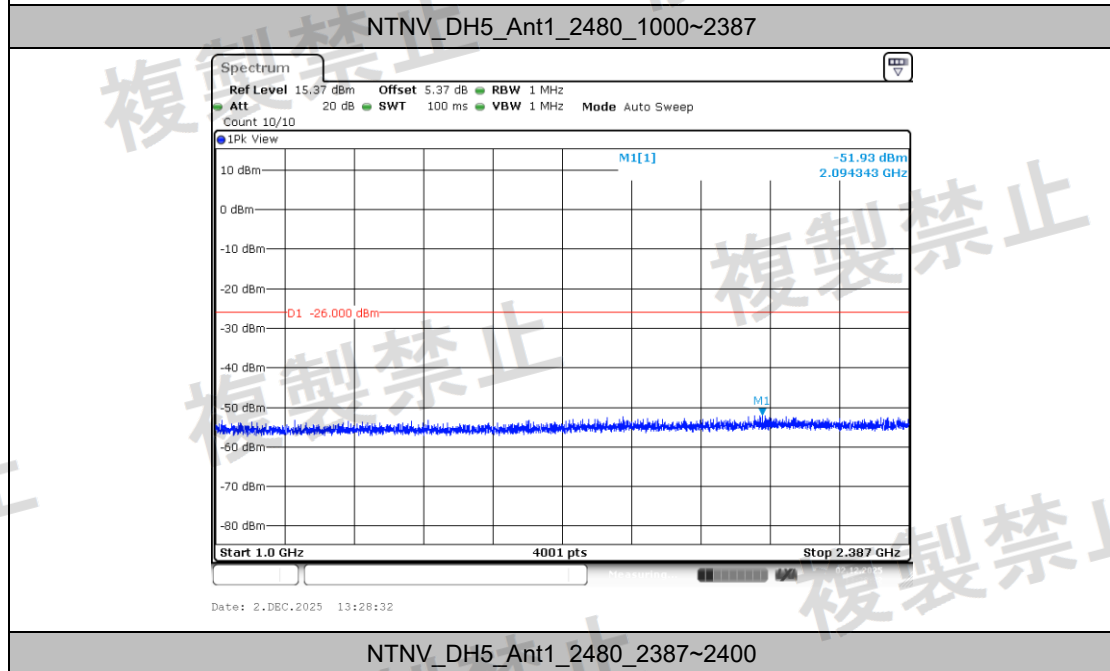
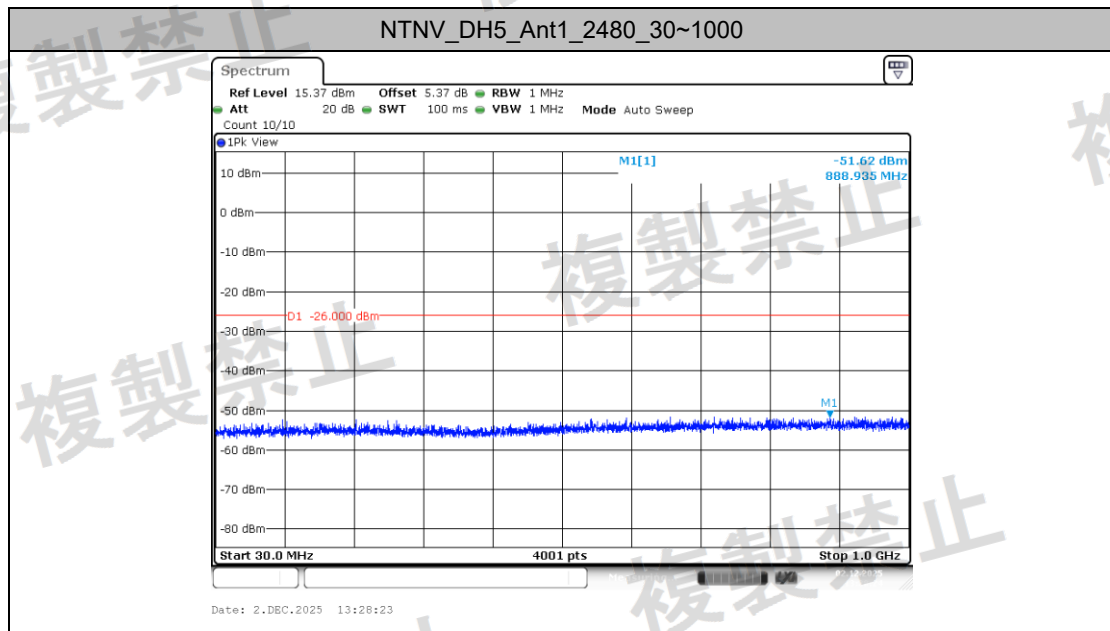


NTNV_DH5_Ant1_2441_2483.5~2496.5

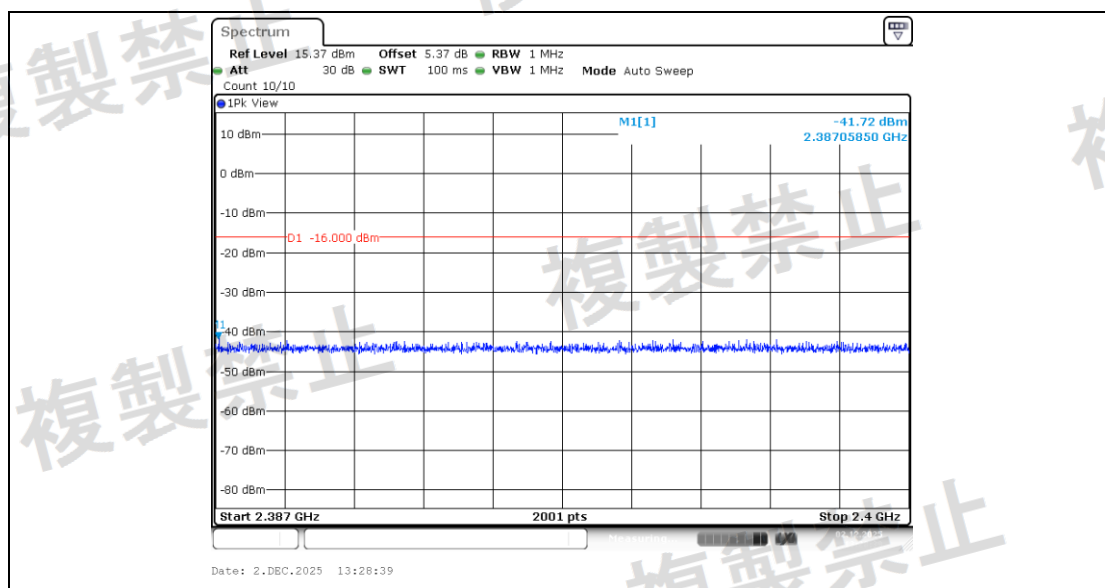


NTNV_DH5_Ant1_2441_2496.5~13000

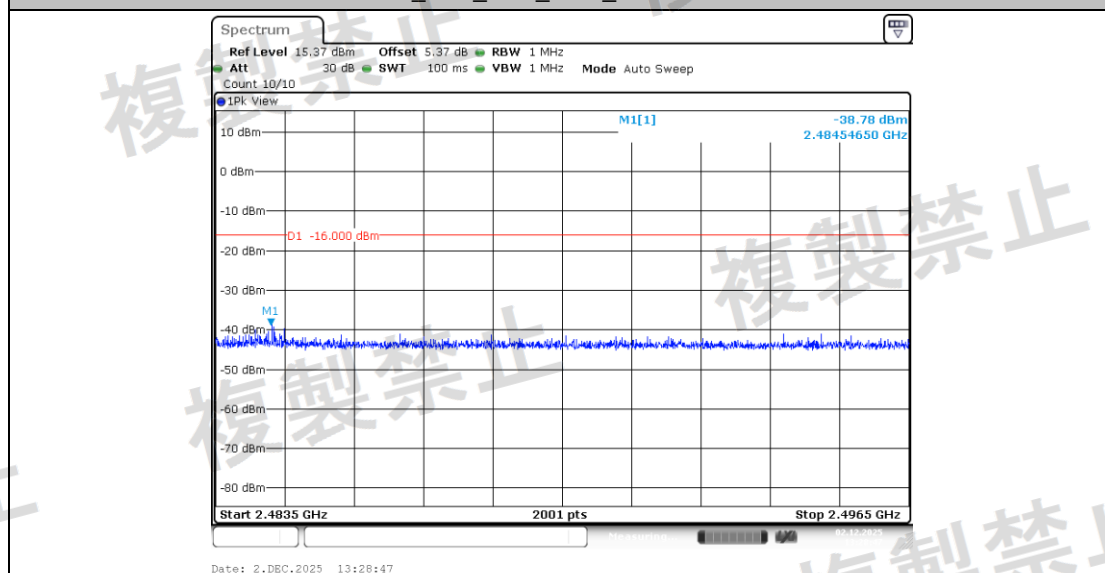




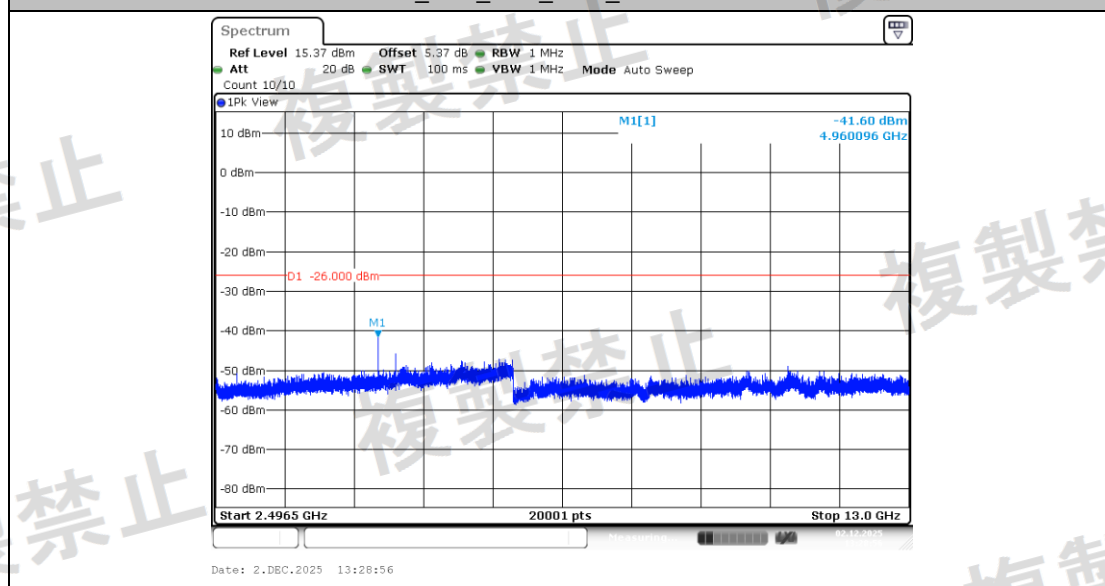
NTNV_DH5_Ant1_2480_2387~2400

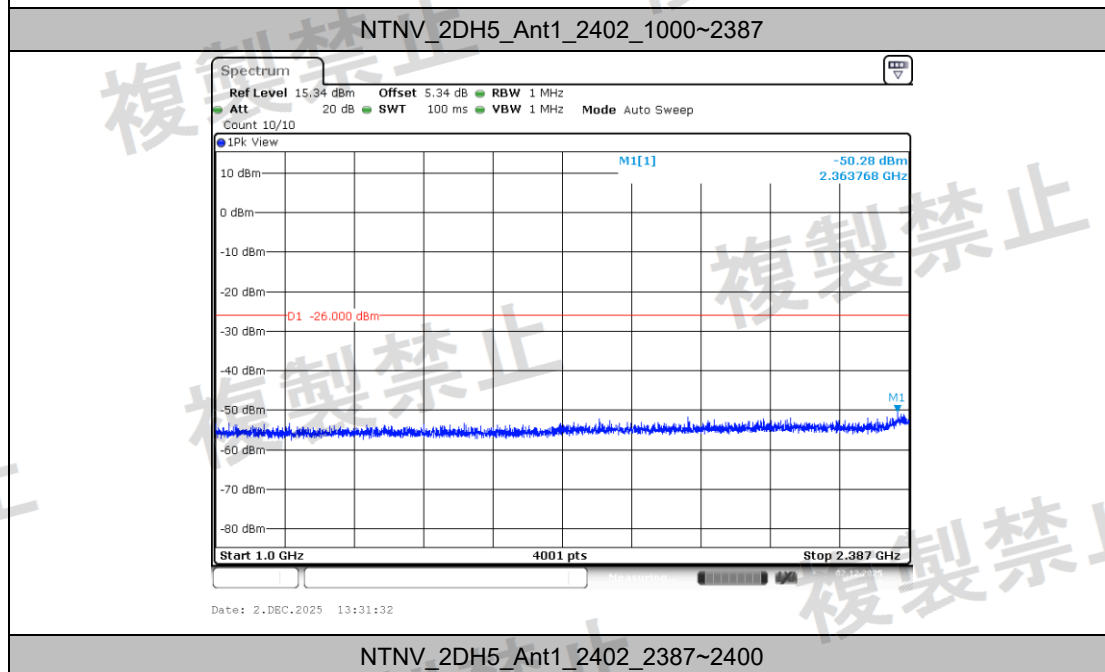
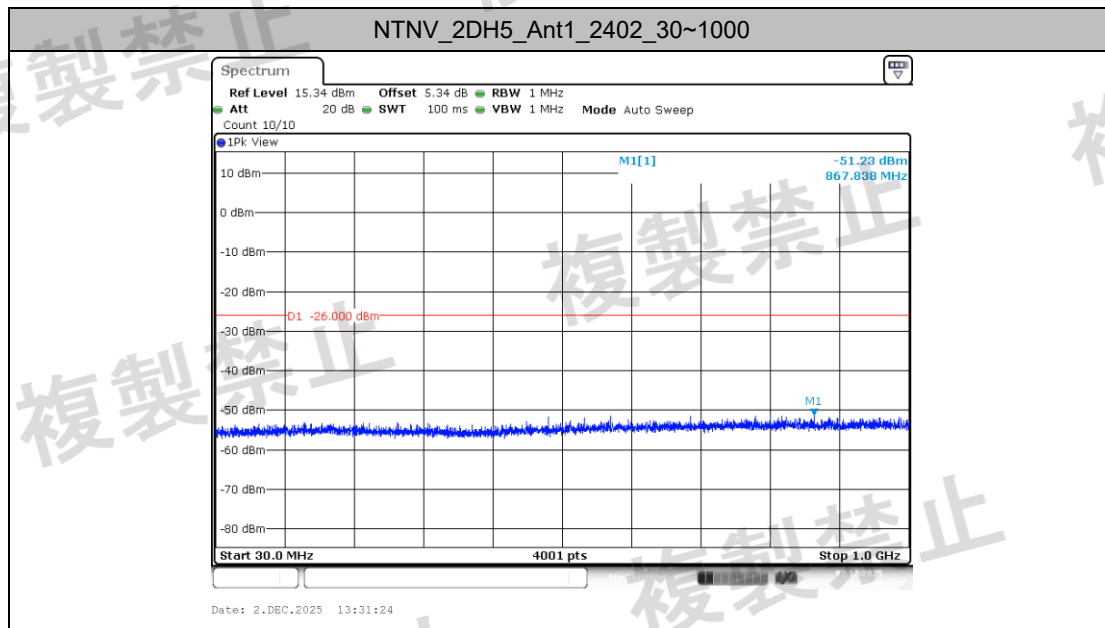


NTNV_DH5_Ant1_2480_2483.5~2496.5

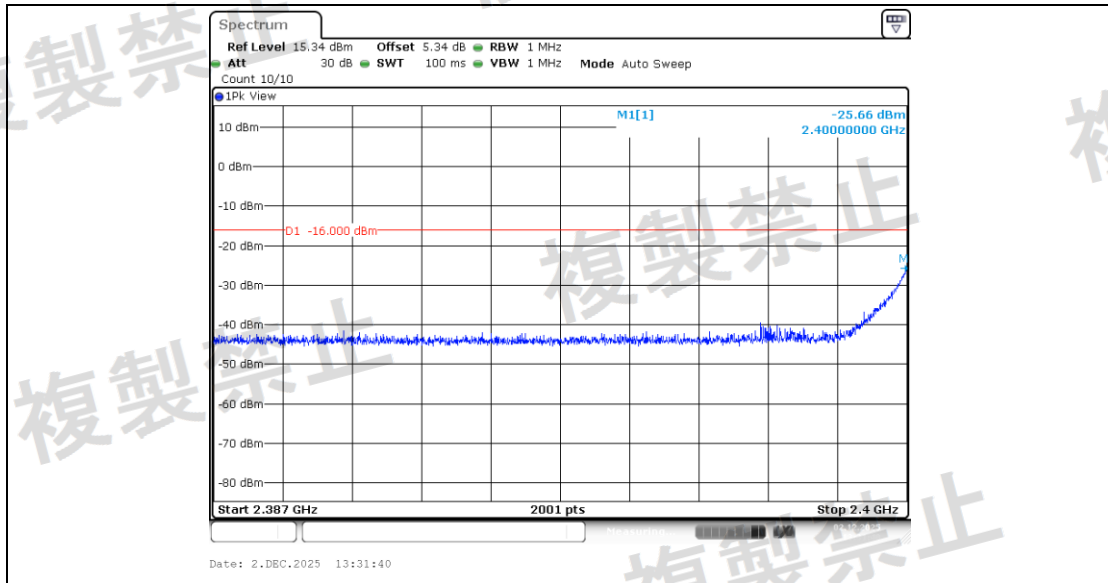


NTNV_DH5_Ant1_2480_2496.5~13000

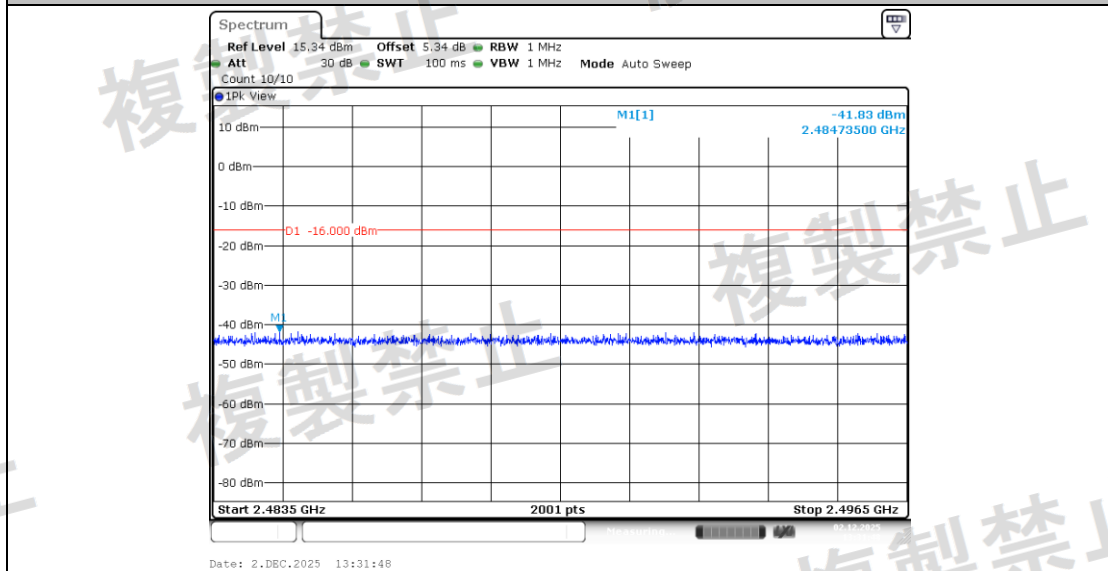




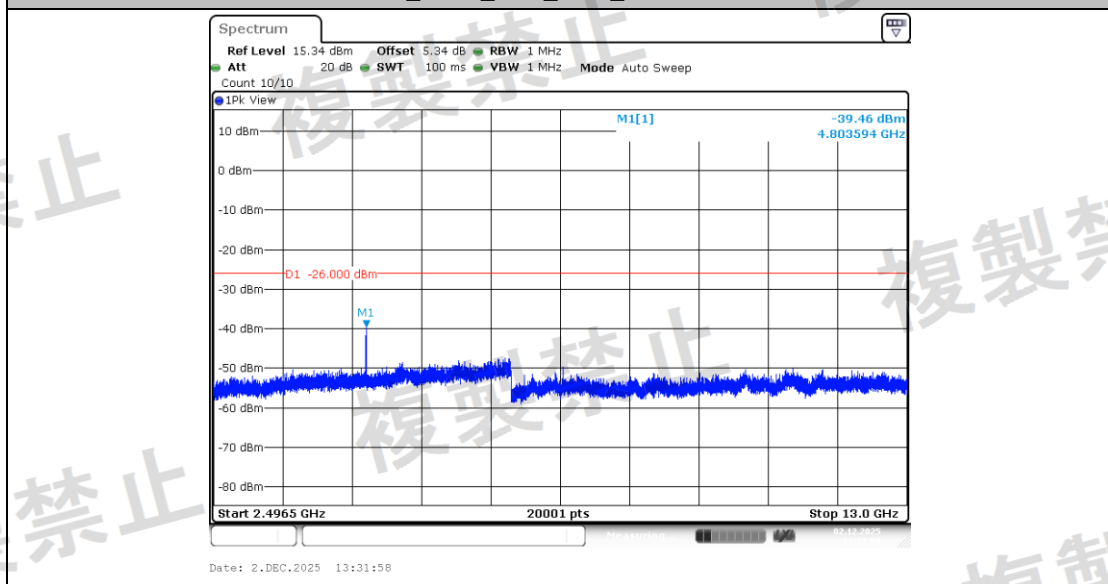
NTNV_2DH5_Ant1_2402_2387~2400

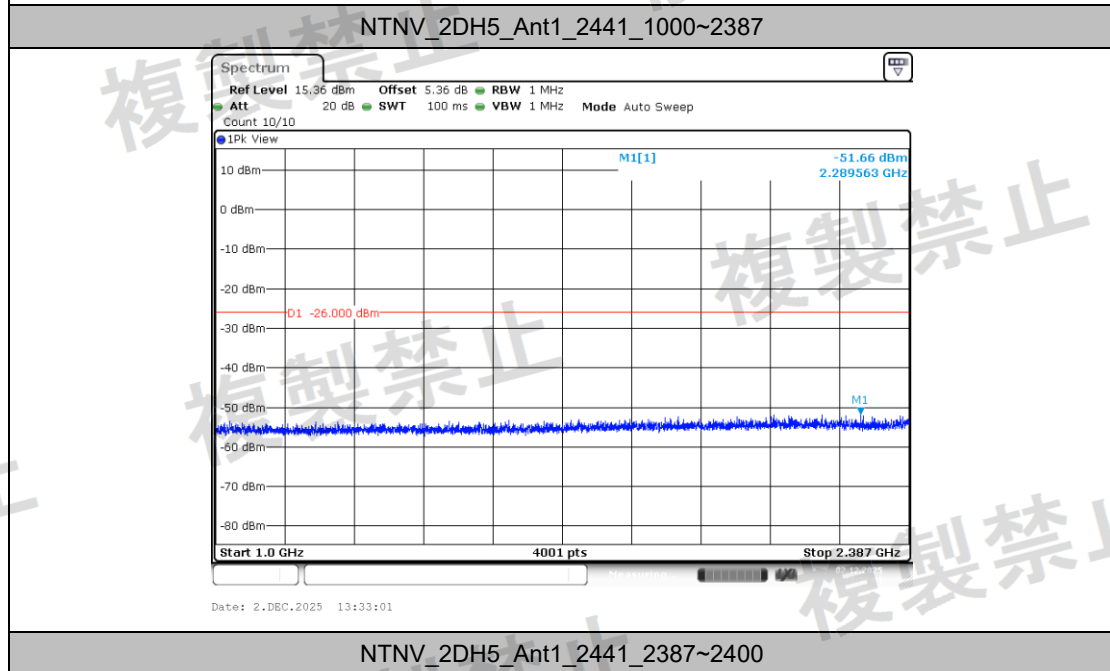
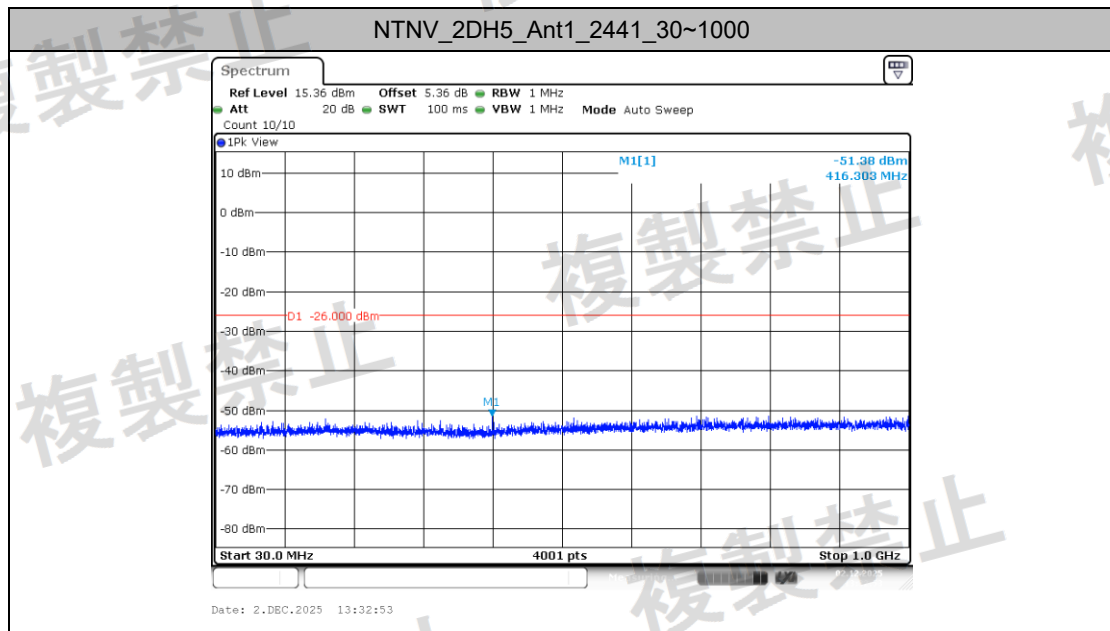


NTNV_2DH5_Ant1_2402_2483.5~2496.5

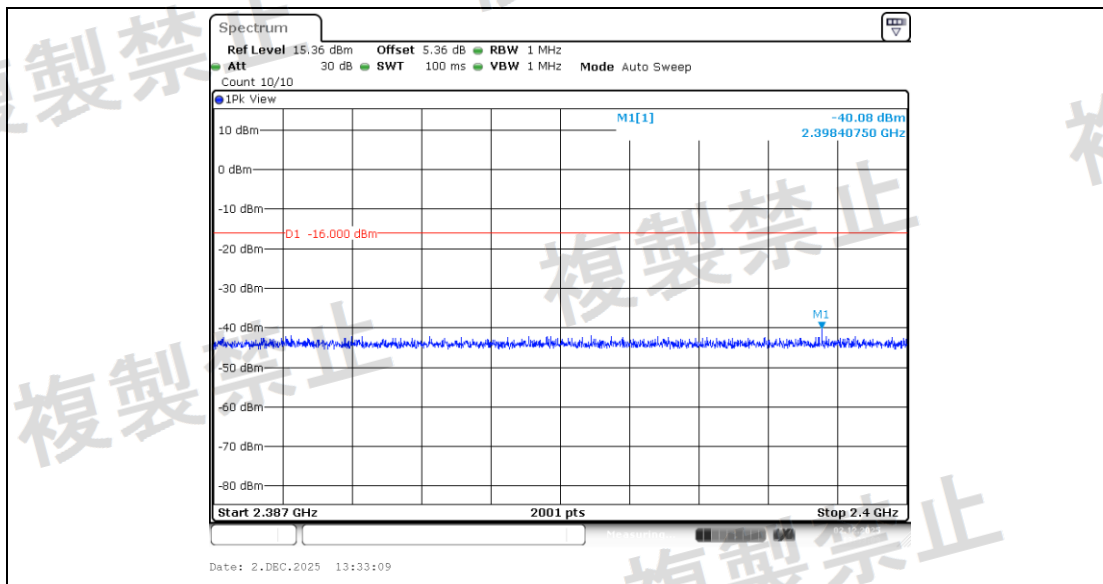


NTNV_2DH5_Ant1_2402_2496.5~13000

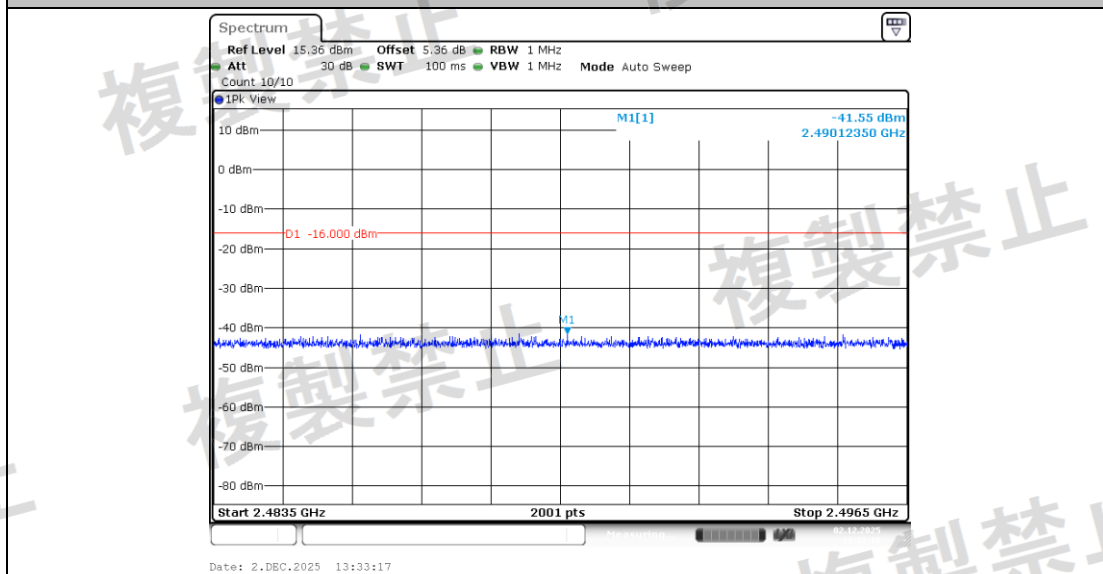




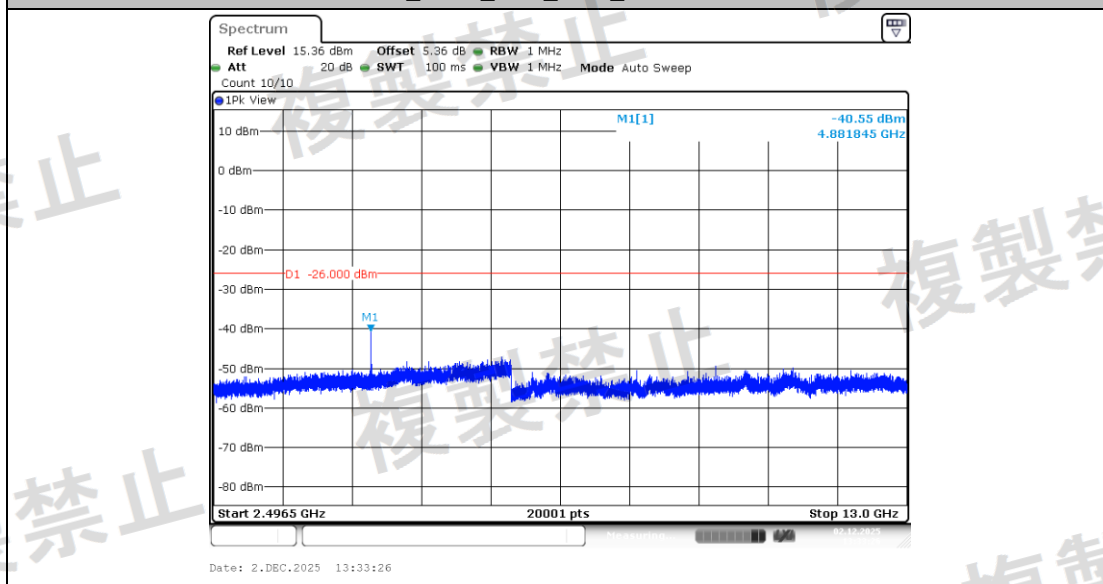
NTNV_2DH5_Ant1_2441_2387~2400

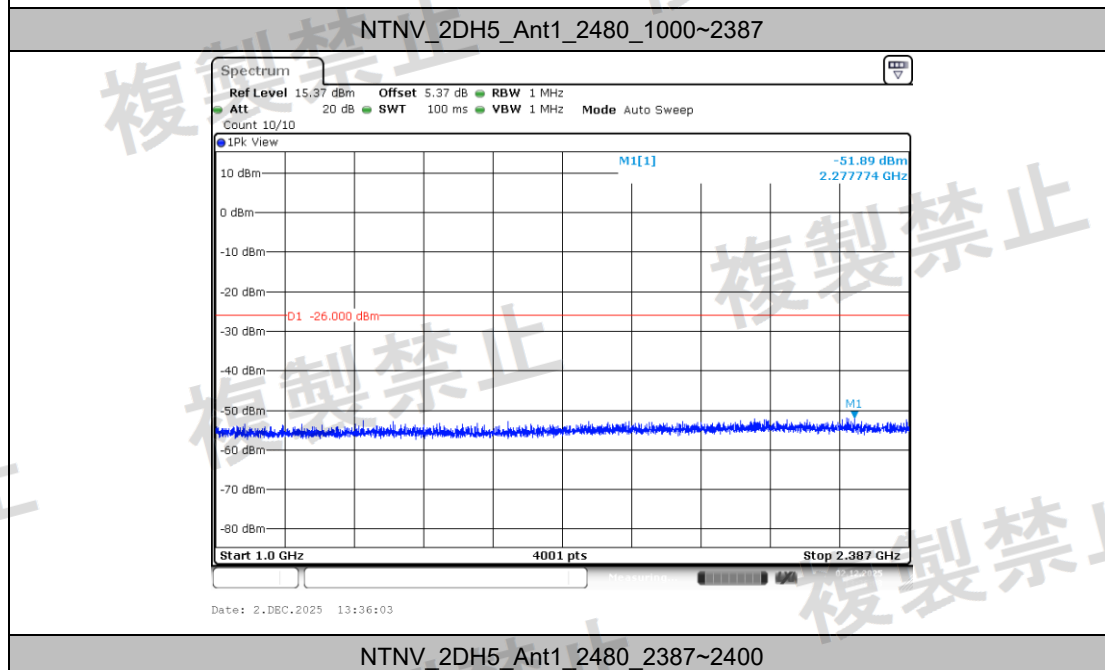
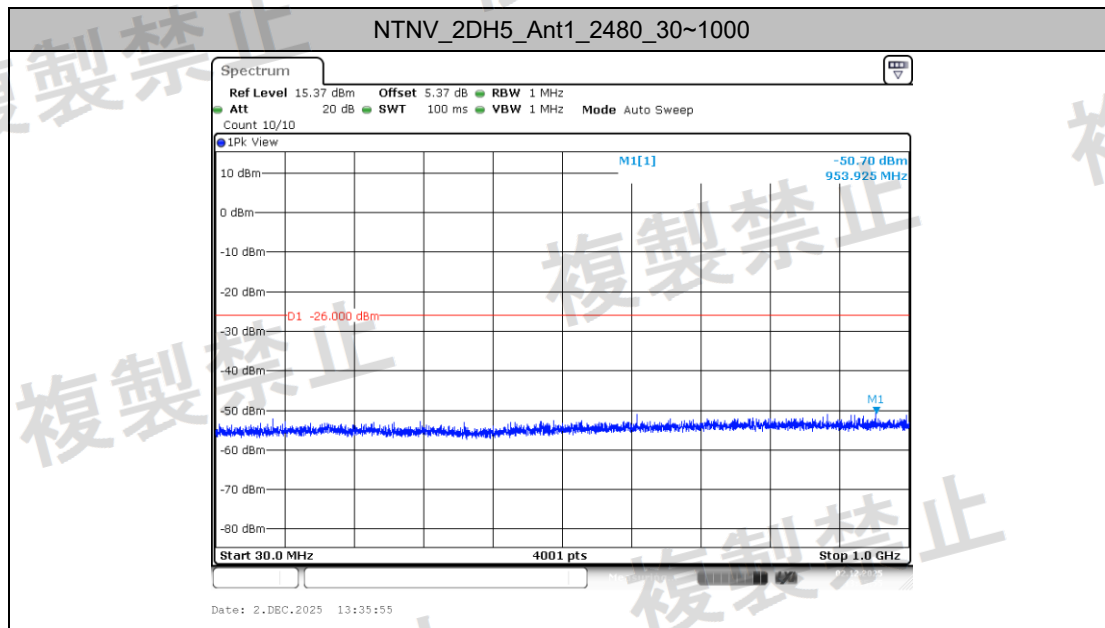


NTNV_2DH5_Ant1_2441_2483.5~2496.5

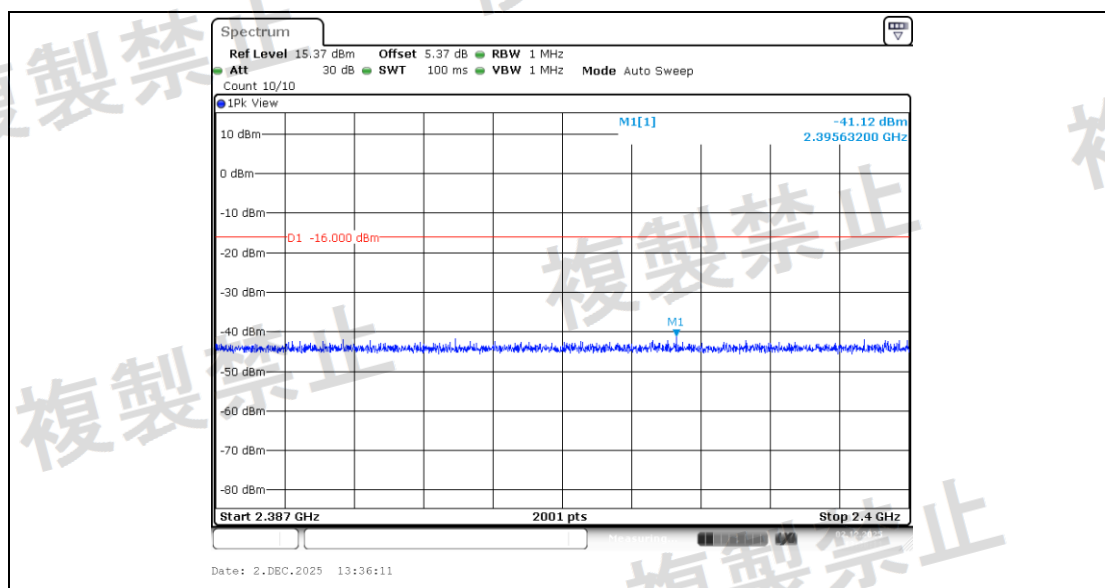


NTNV_2DH5_Ant1_2441_2496.5~13000

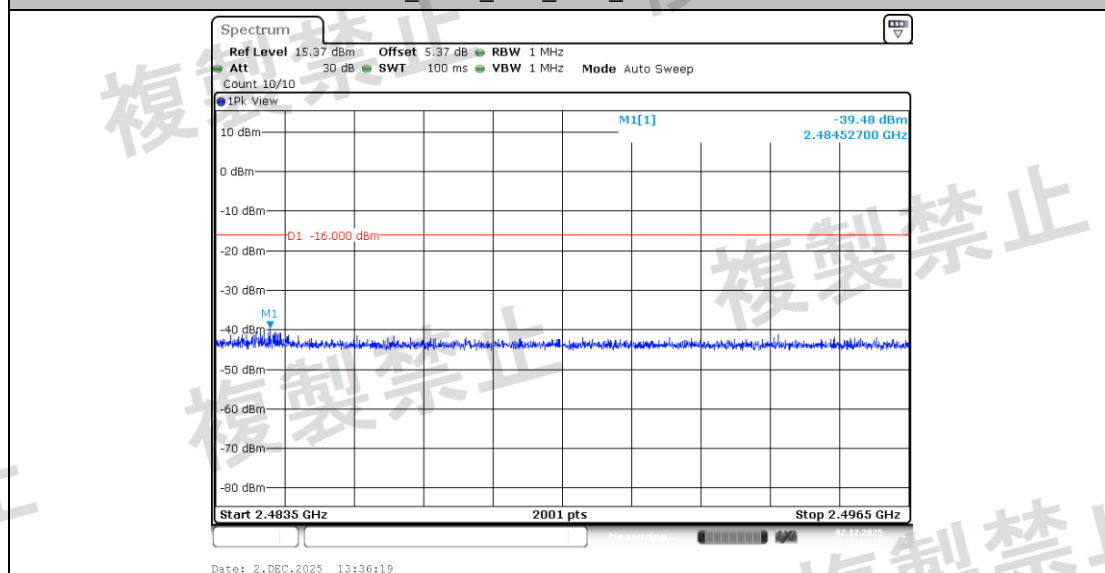




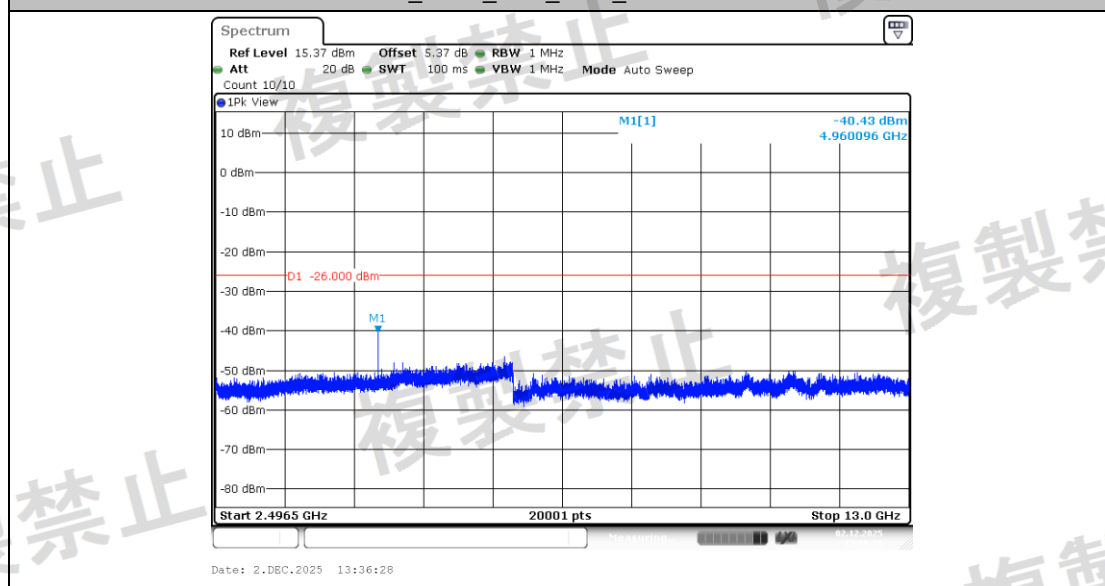
NTNV_2DH5_Ant1_2480_2387~2400

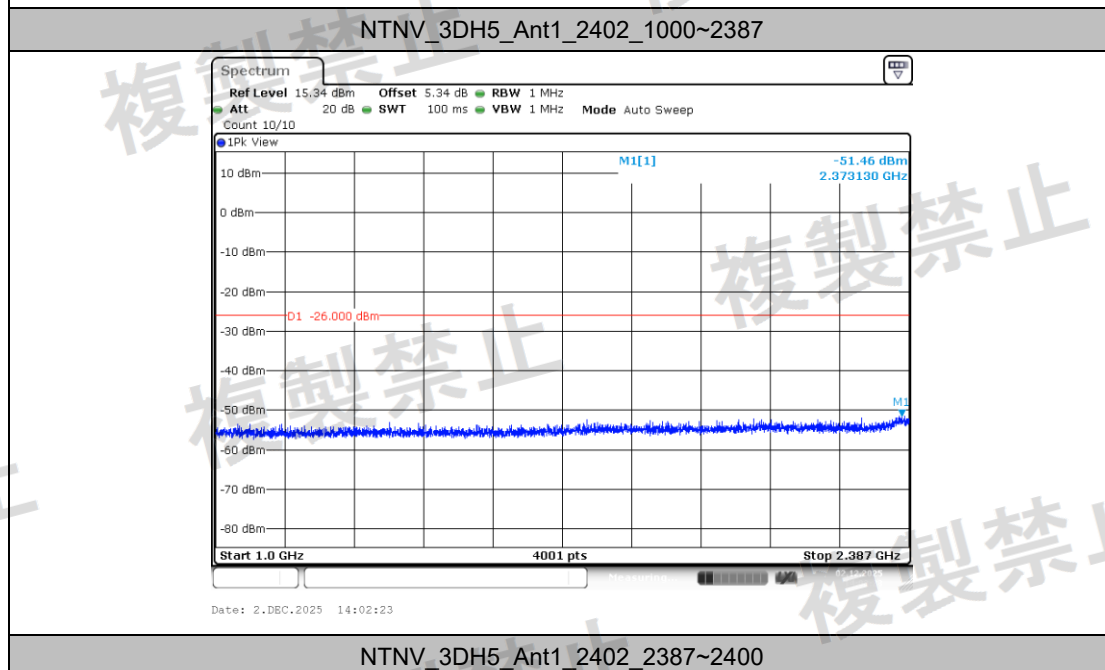
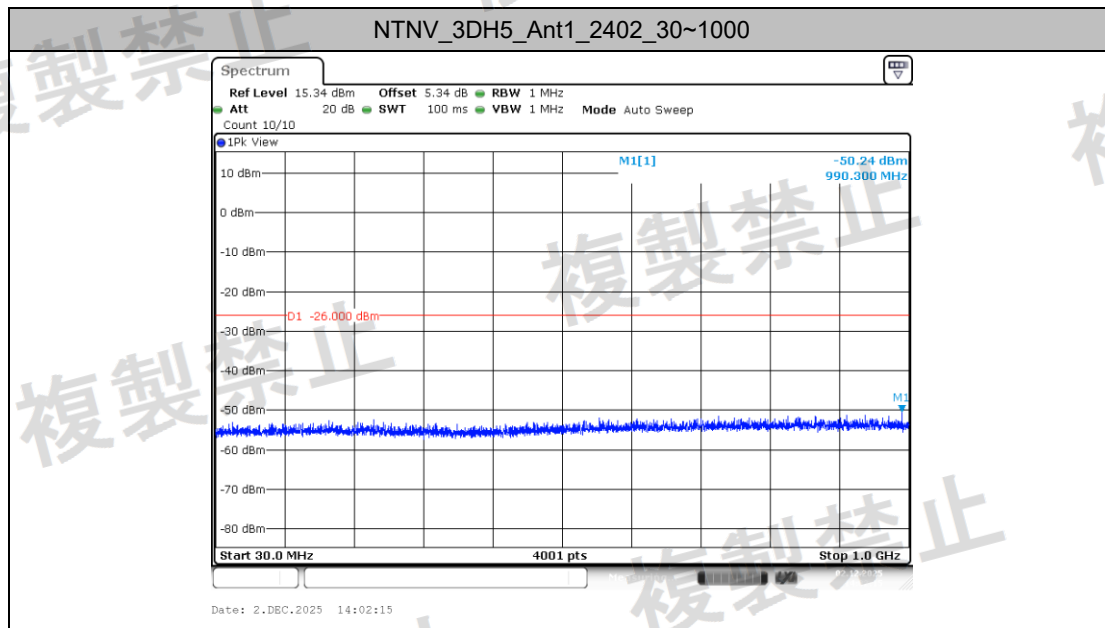


NTNV_2DH5_Ant1_2480_2483.5~2496.5

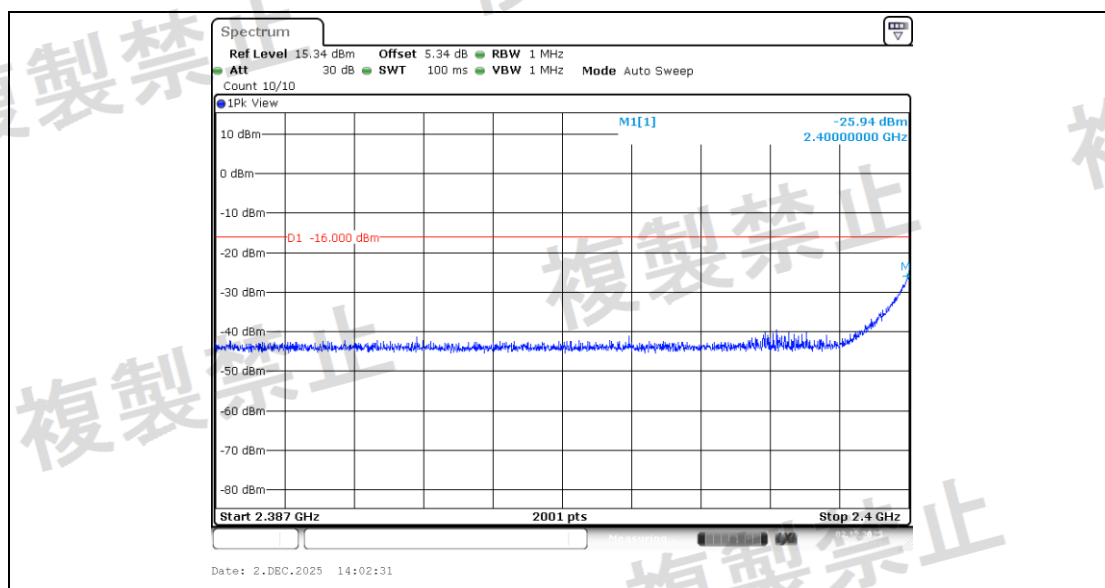


NTNV_2DH5_Ant1_2480_2496.5~13000

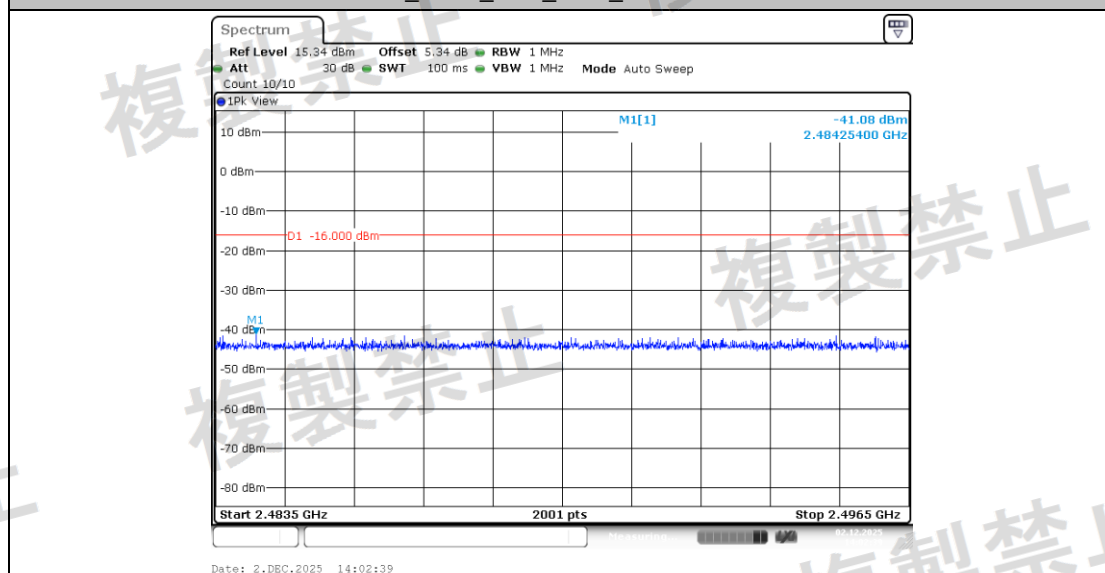




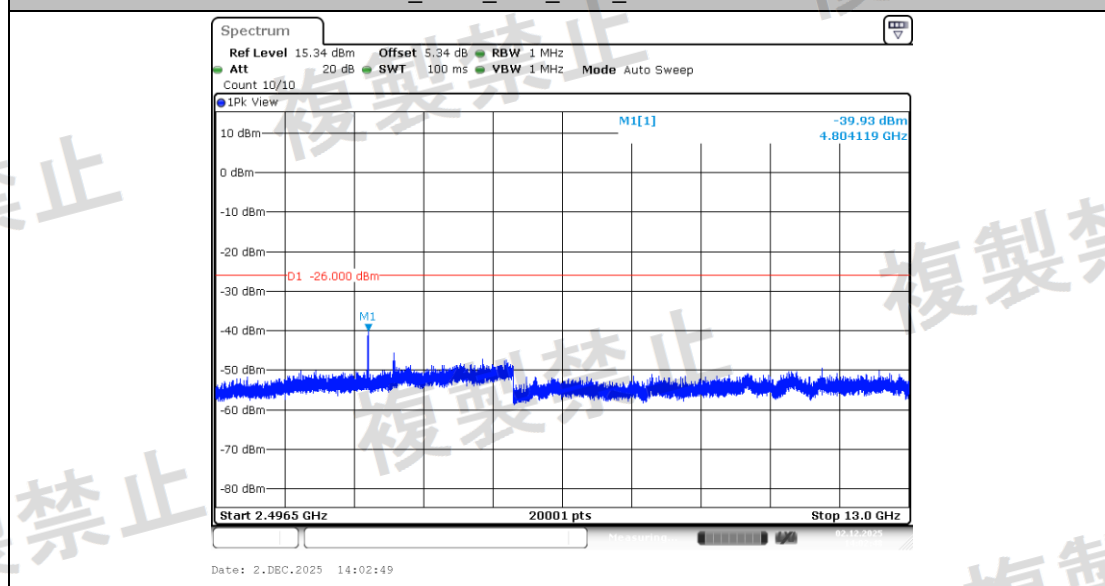
NTNV_3DH5_Ant1_2402_2387~2400

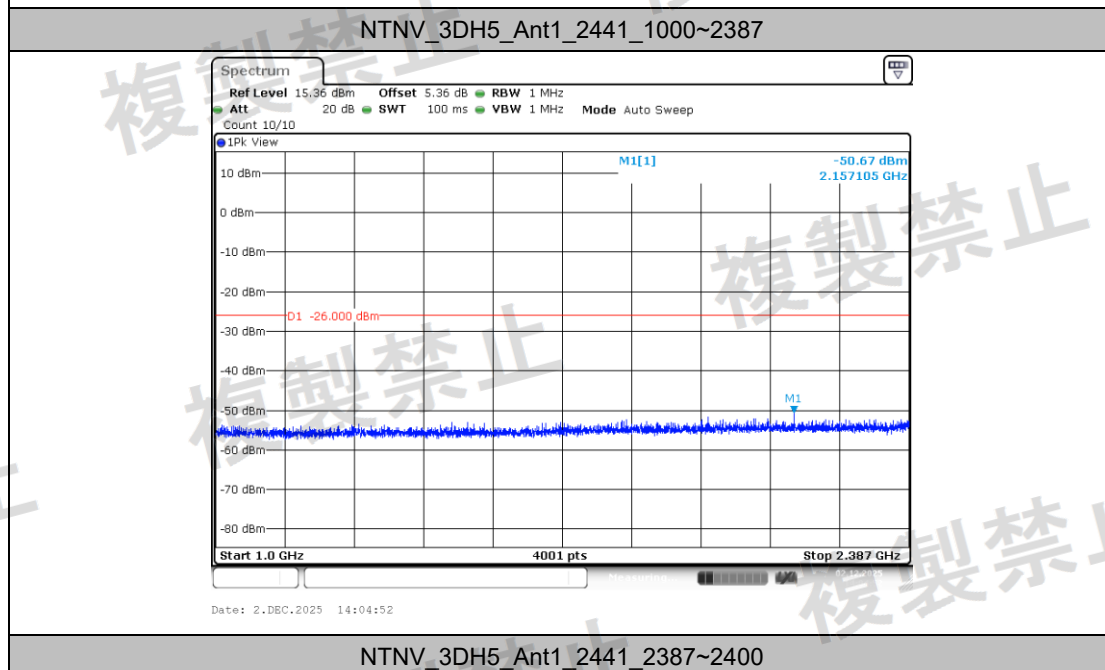
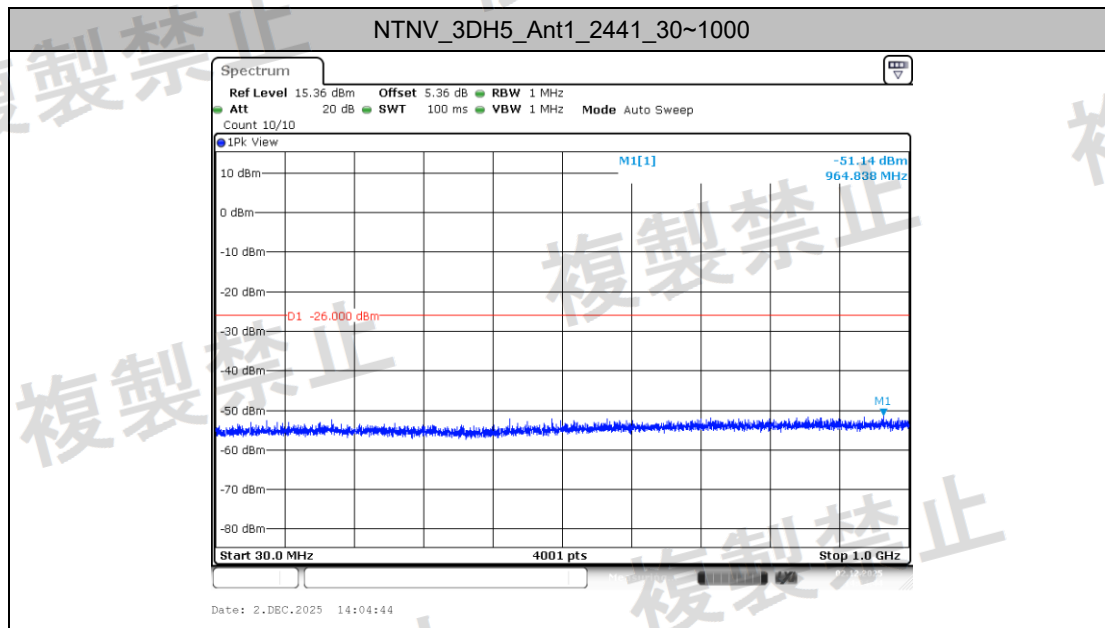


NTNV_3DH5_Ant1_2402_2483.5~2496.5

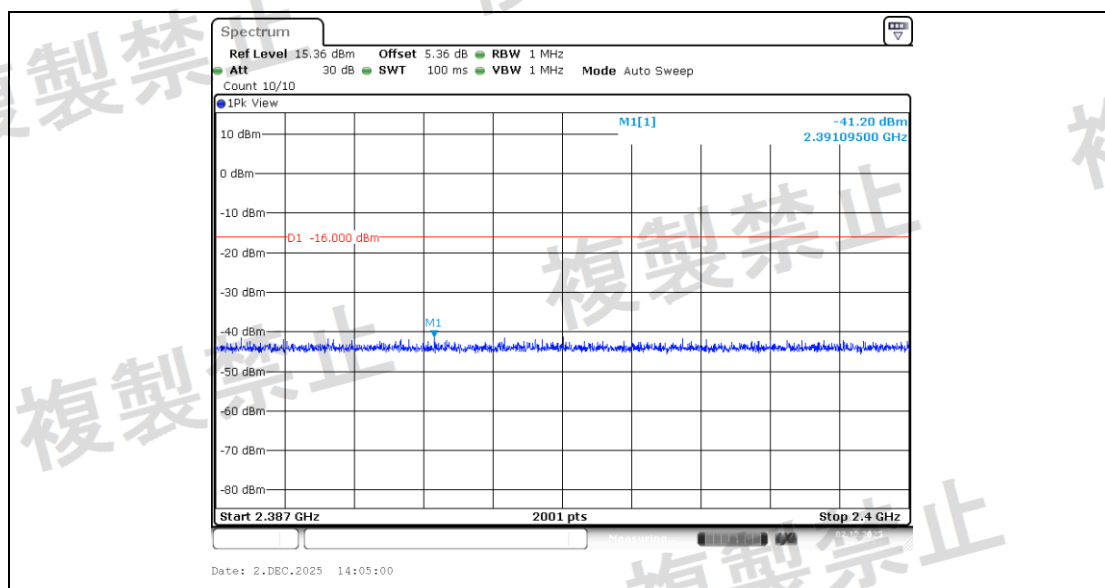


NTNV_3DH5_Ant1_2402_2496.5~13000

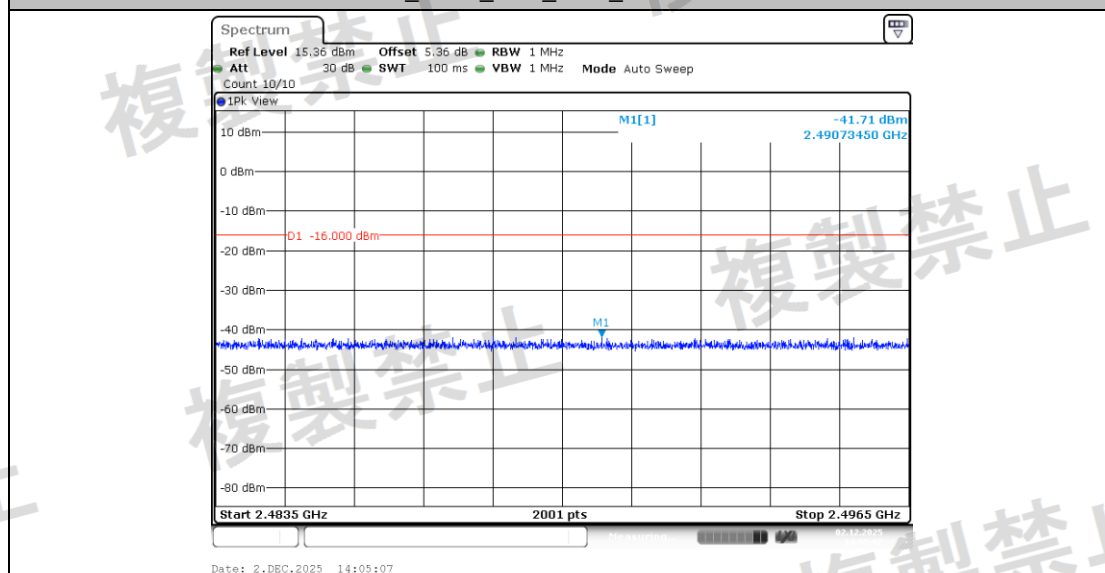




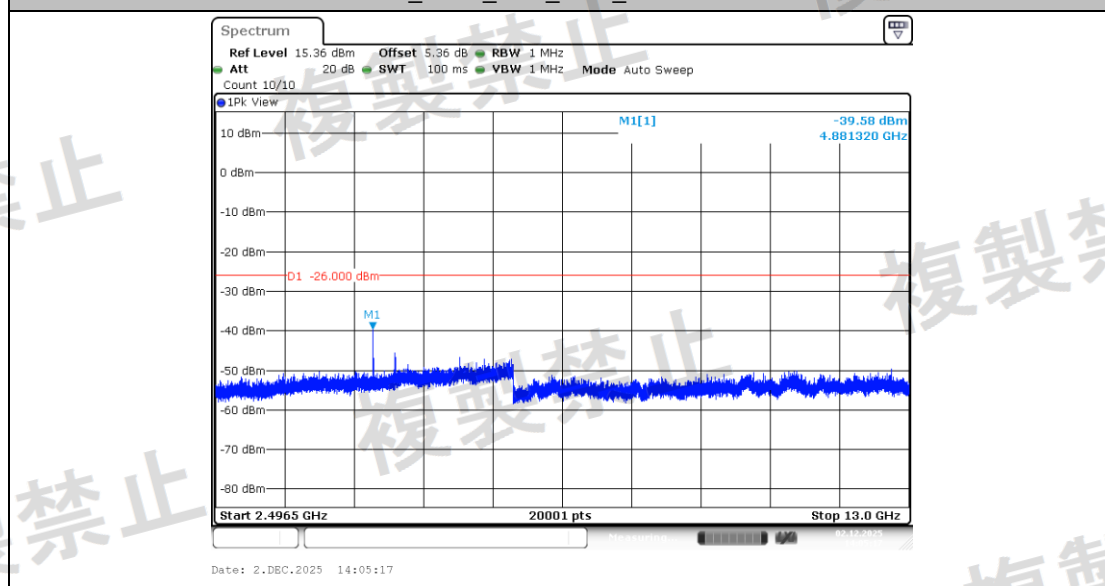
NTNV_3DH5_Ant1_2441_2387~2400

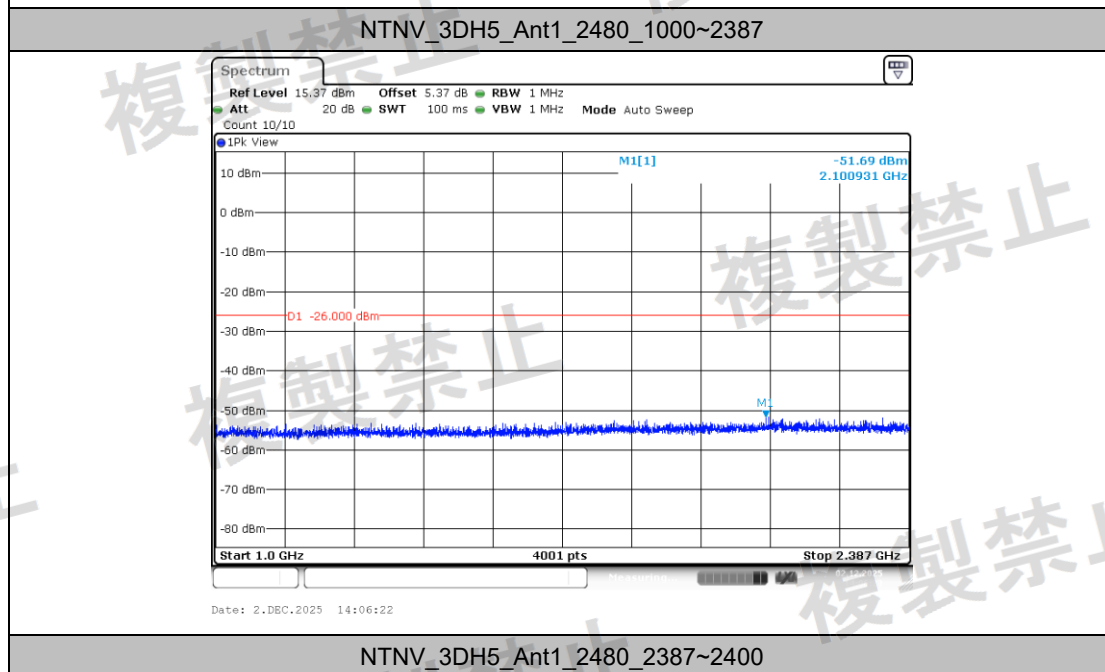
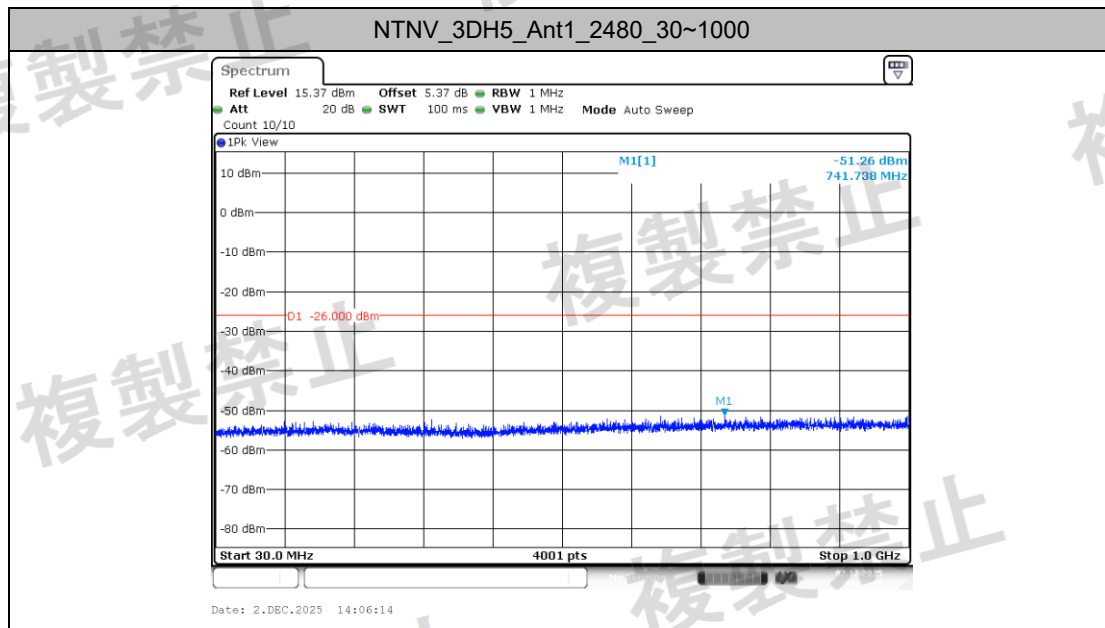


NTNV_3DH5_Ant1_2441_2483.5~2496.5

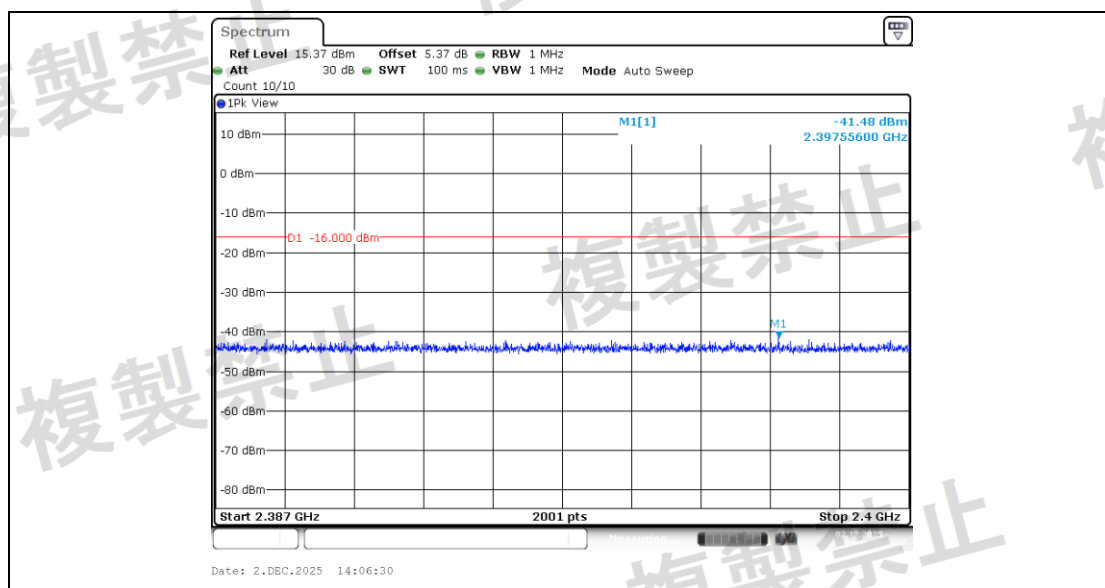


NTNV_3DH5_Ant1_2441_2496.5~13000

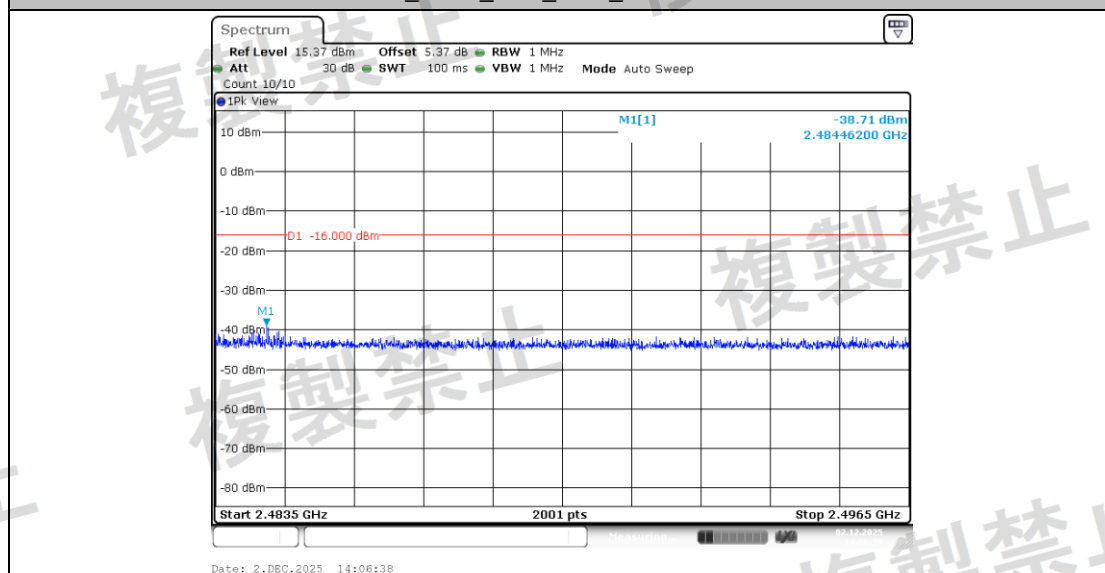




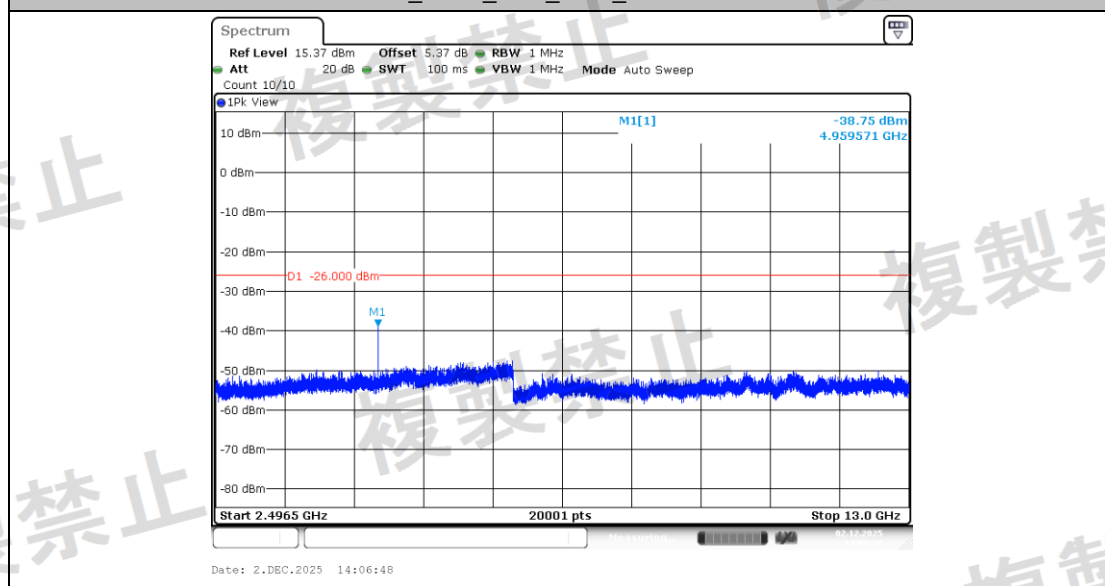
NTNV_3DH5_Ant1_2480_2387~2400



NTVN_3DH5_Ant1_2480_2483.5~2496.5



NTVN_3DH5_Ant1_2480_2496.5~13000

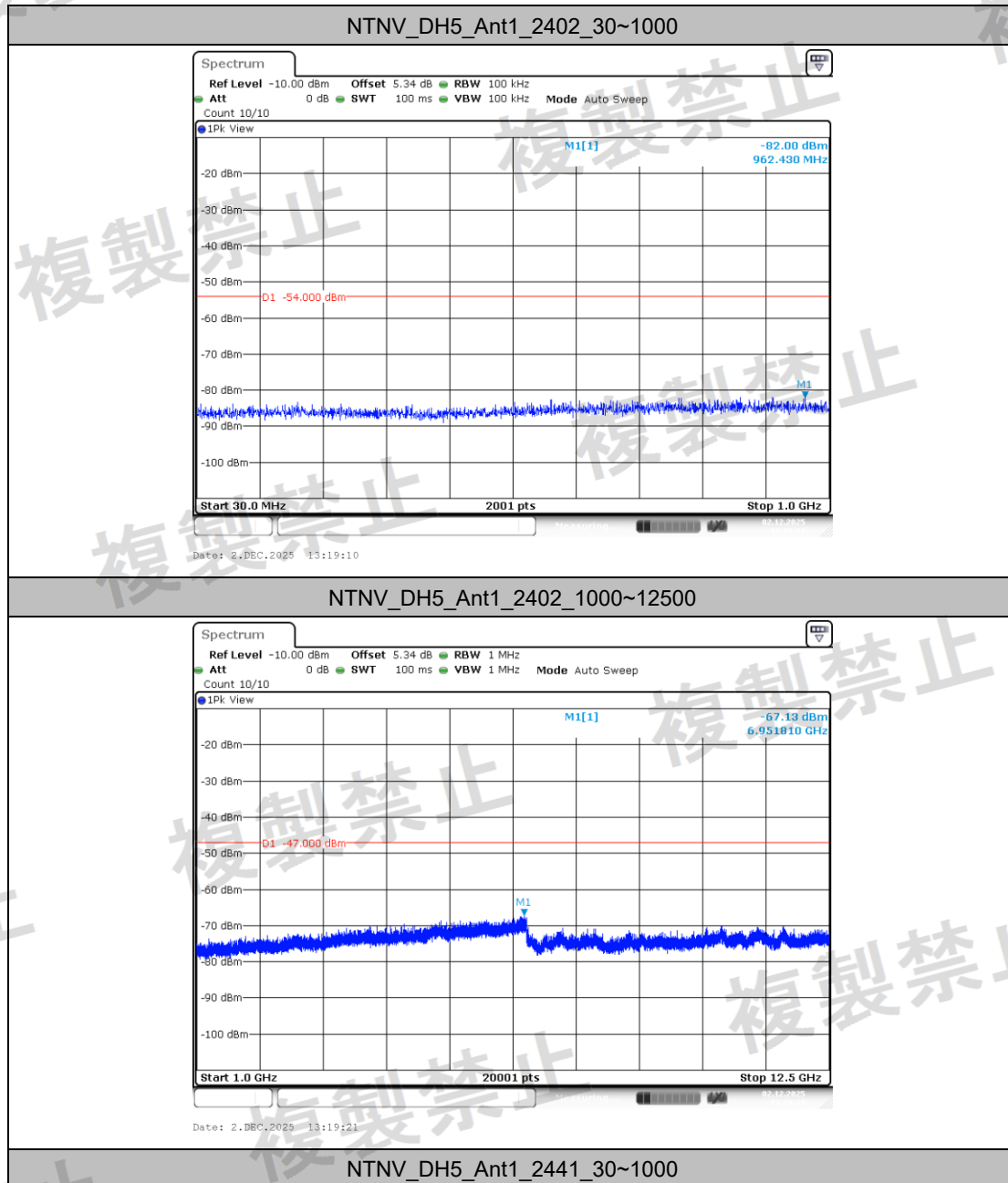


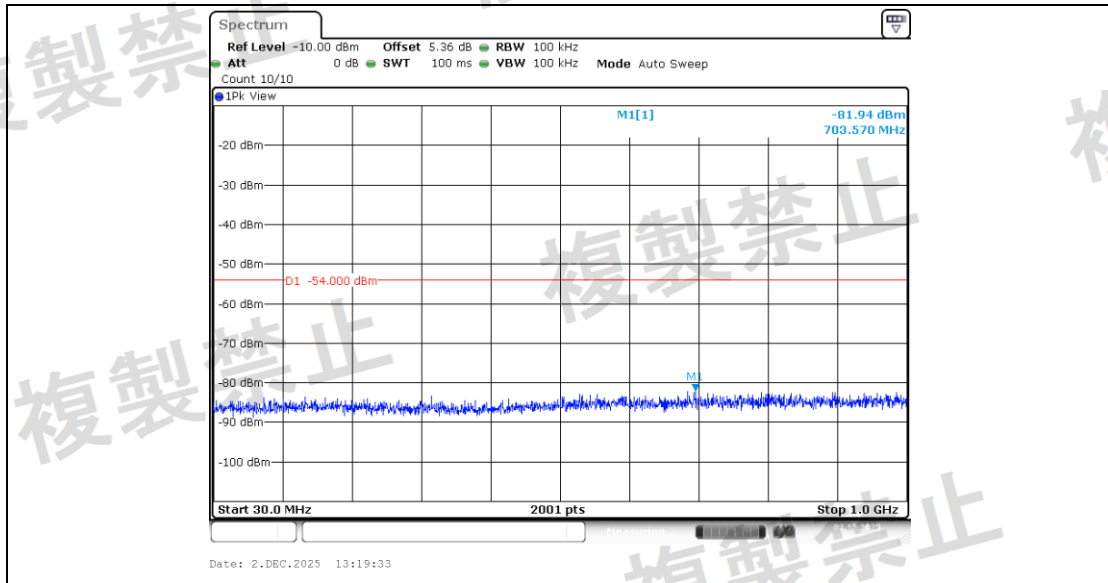
Appendix E: Spurious Emission of RX

Test Result

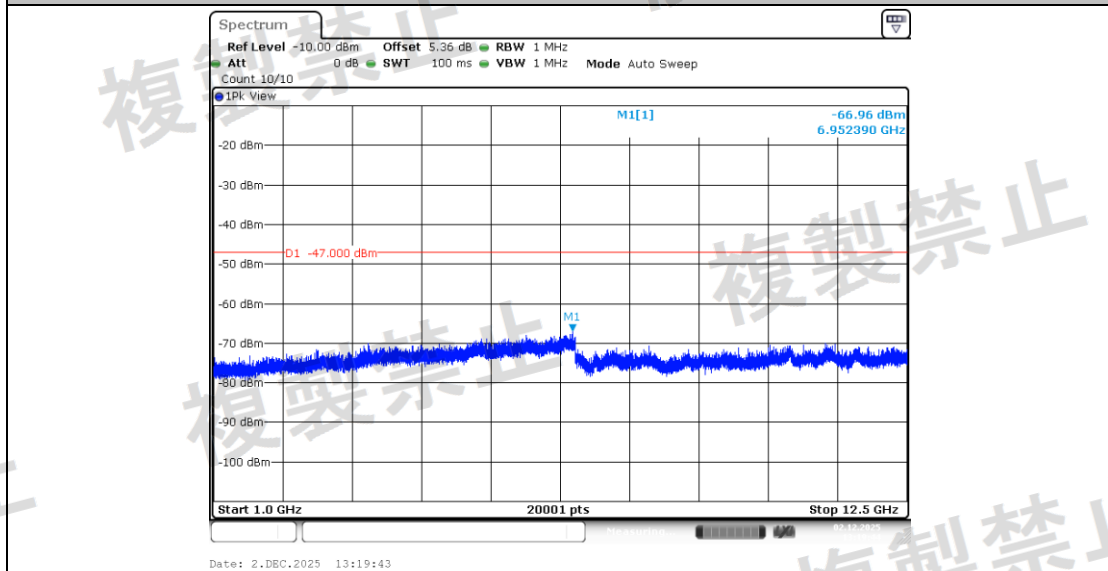
Test Condition	Test Mode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	DH5	Ant1	2402	30~1000	962.43	-82.00	≤-54	0.0063 1	≤4	PASS
				1000~12500	6951.8 1	-67.13	≤-47	0.1936 4	≤20	PASS
			2441	30~1000	703.57	-81.94	≤-54	0.0064 0	≤4	PASS
				1000~12500	6952.3 9	-66.96	≤-47	0.2013 7	≤20	PASS
			2480	30~1000	875.17	-81.72	≤-54	0.0067 3	≤4	PASS
				1000~12500	6973.6 6	-67.48	≤-47	0.1786 5	≤20	PASS
	2DH5	Ant1	2402	30~1000	836.39	-81.61	≤-54	0.0069 0	≤4	PASS
				1000~12500	6526.3 4	-67.89	≤-47	0.1625 5	≤20	PASS
			2441	30~1000	824.76	-81.34	≤-54	0.0073 5	≤4	PASS
				1000~12500	6891.4 4	-67.82	≤-47	0.1652 0	≤20	PASS
			2480	30~1000	603.71	-81.89	≤-54	0.0064 7	≤4	PASS
				1000~12500	6817.8 5	-67.78	≤-47	0.1667 2	≤20	PASS
	3DH5	Ant1	2402	30~1000	790.34	-81.72	≤-54	0.0067 3	≤4	PASS
				1000~12500	6986.3 1	-67.21	≤-47	0.19011	≤20	PASS
			2441	30~1000	892.63	-81.74	≤-54	0.0067 0	≤4	PASS
				1000~12500	6924.2 2	-67.16	≤-47	0.1923 1	≤20	PASS
			2480	30~1000	897.96	-81.24	≤-54	0.0075 2	≤4	PASS
				1000~12500	6958.1 4	-67.72	≤-47	0.1690 4	≤20	PASS

Test Graphs

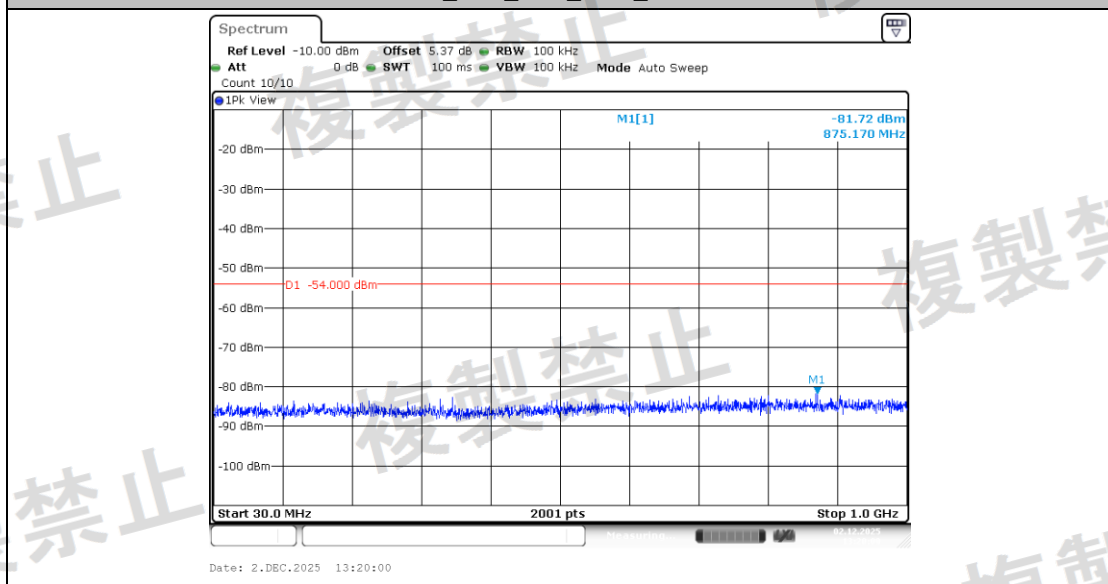


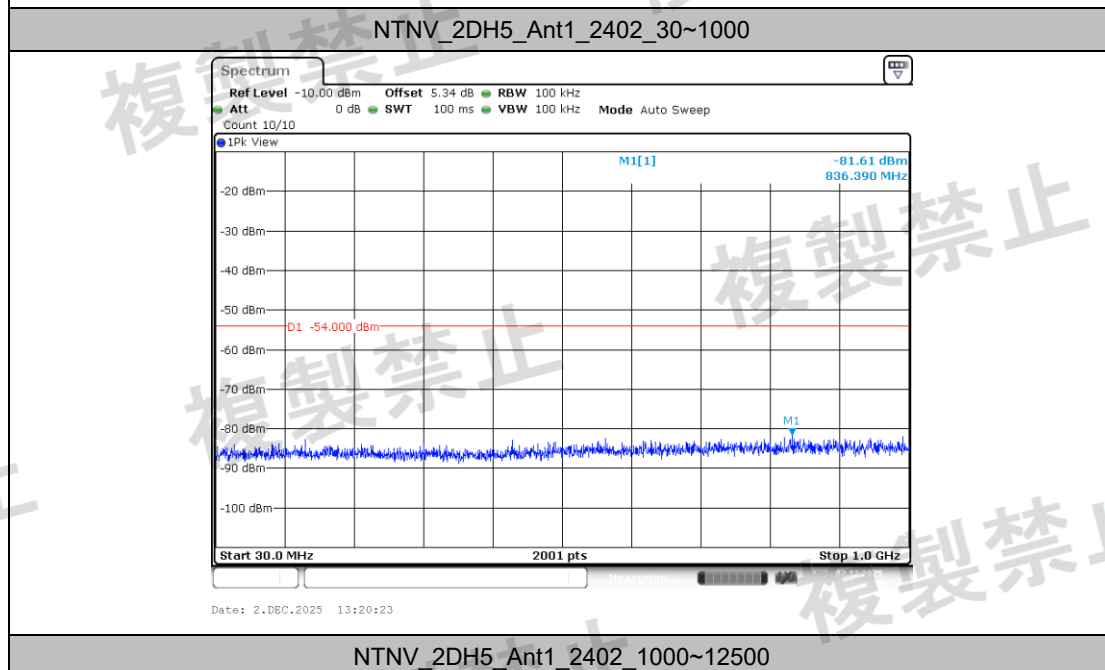
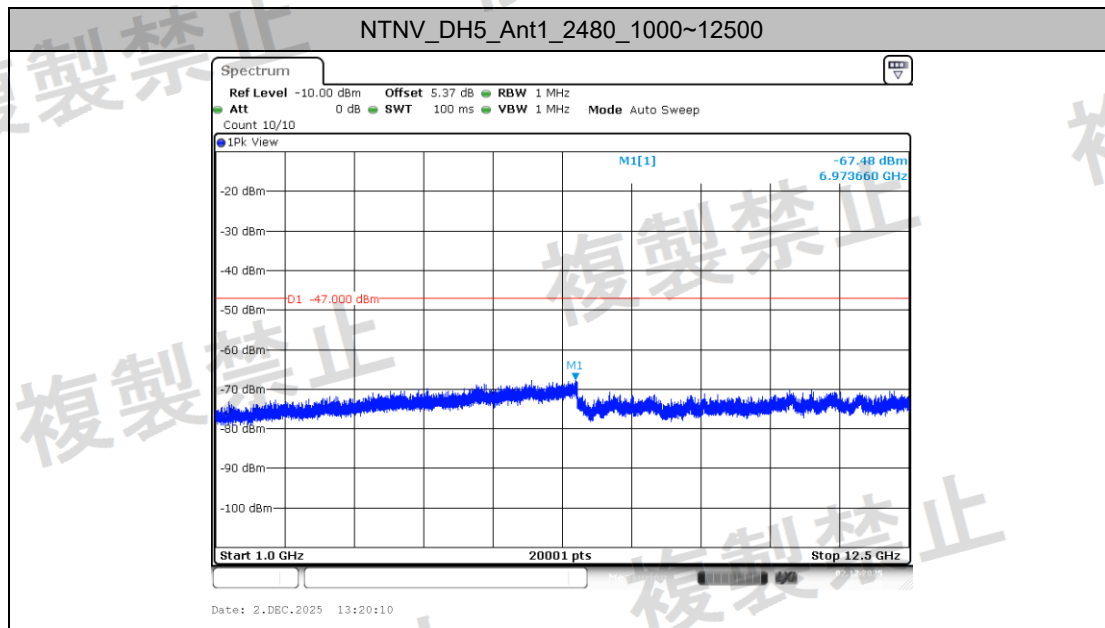


NTNV_DH5_Ant1_2441_1000~12500

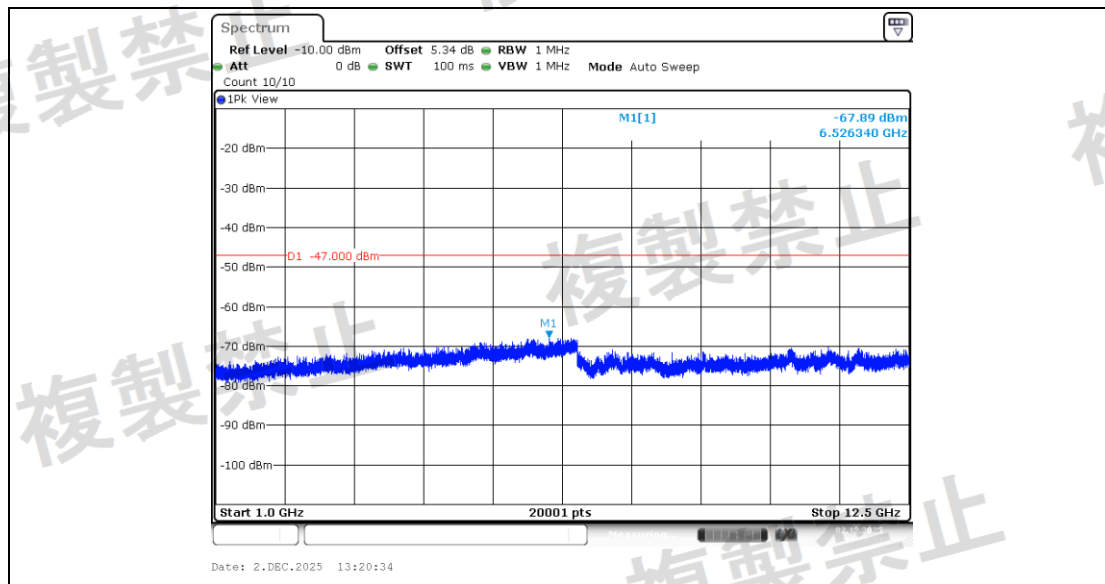


NTNV_DH5_Ant1_2480_30~1000

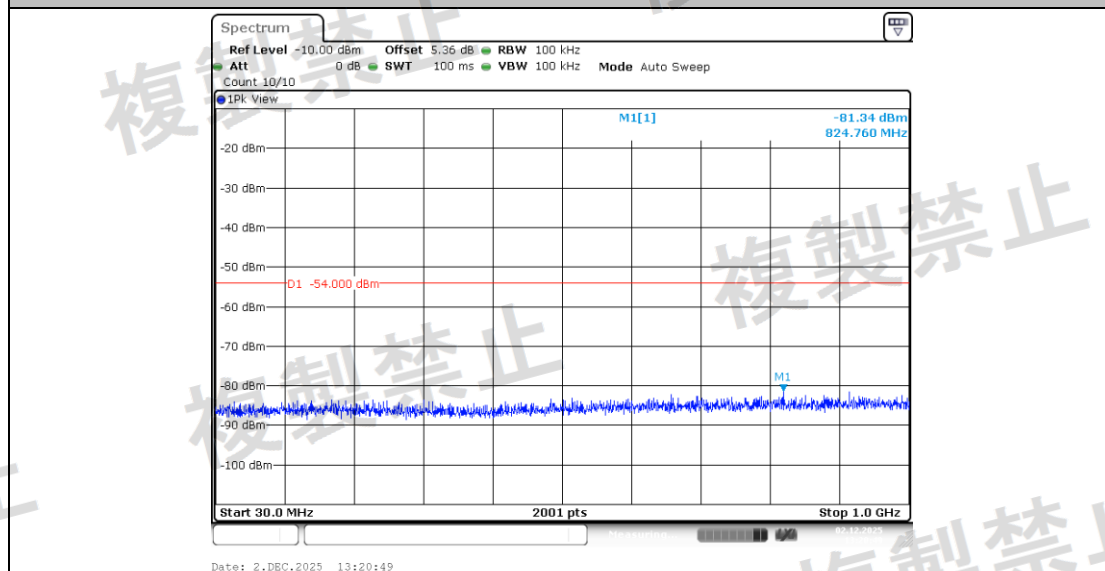




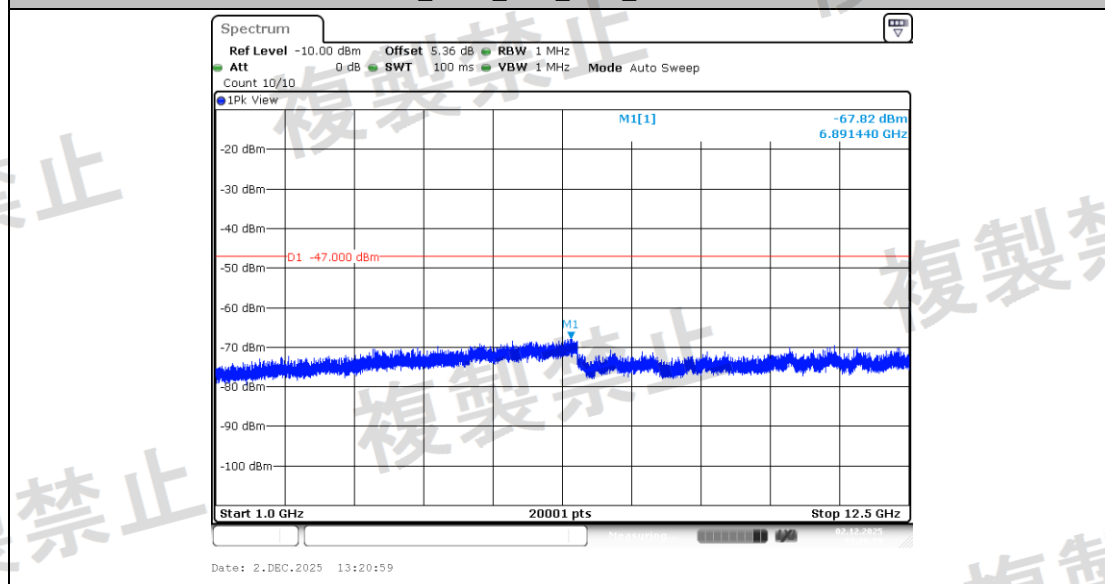
NTNV_2DH5_Ant1_2402_1000~12500

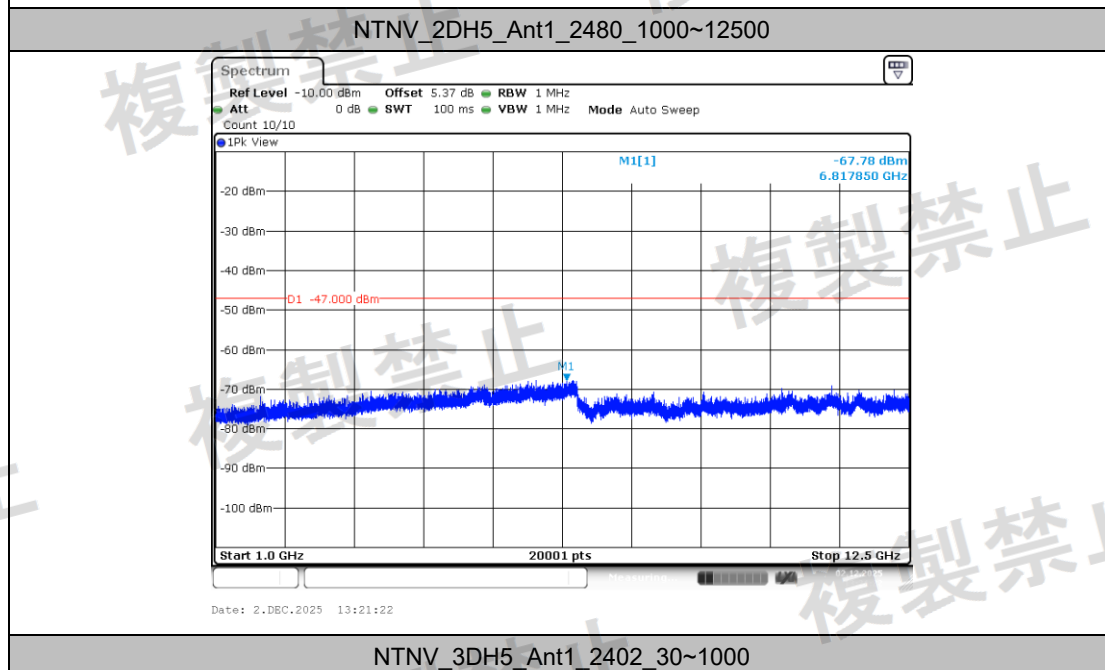
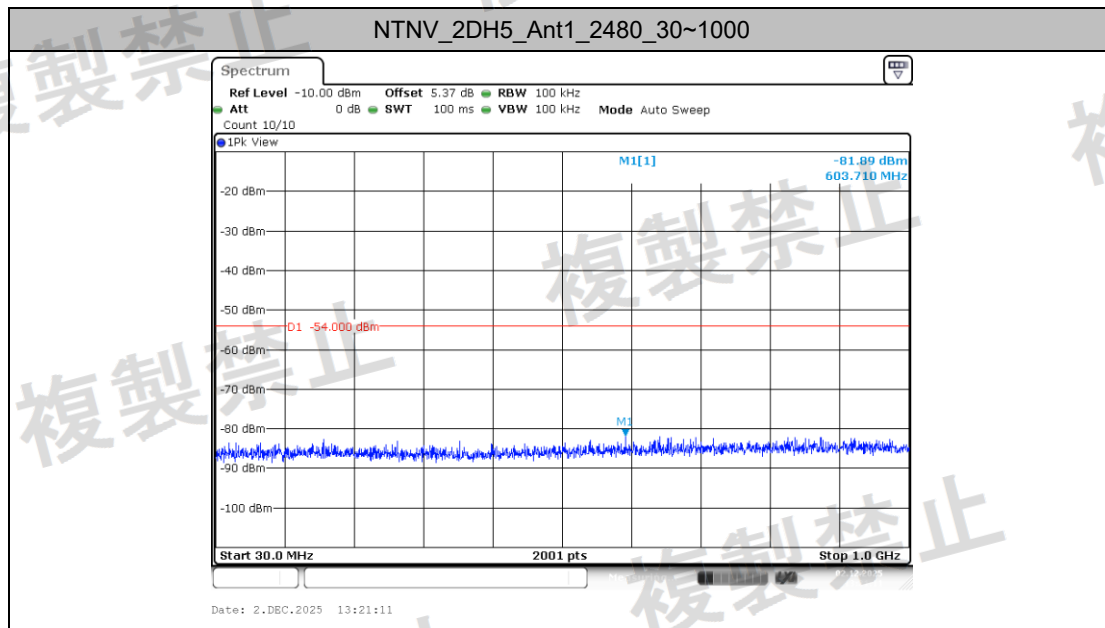


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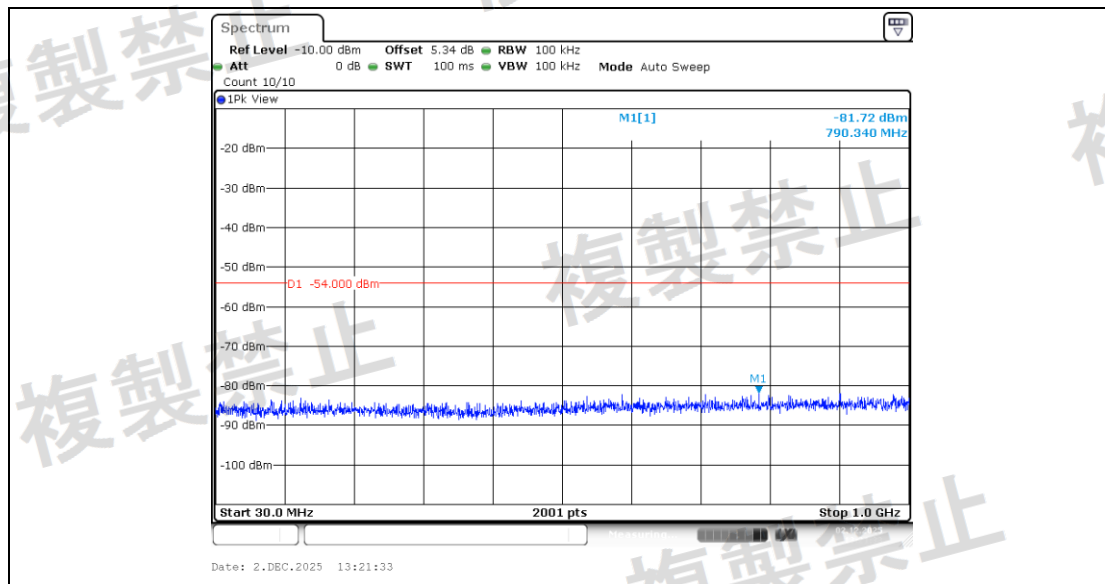


NTNV_2DH5_Ant1_2441_1000~12500

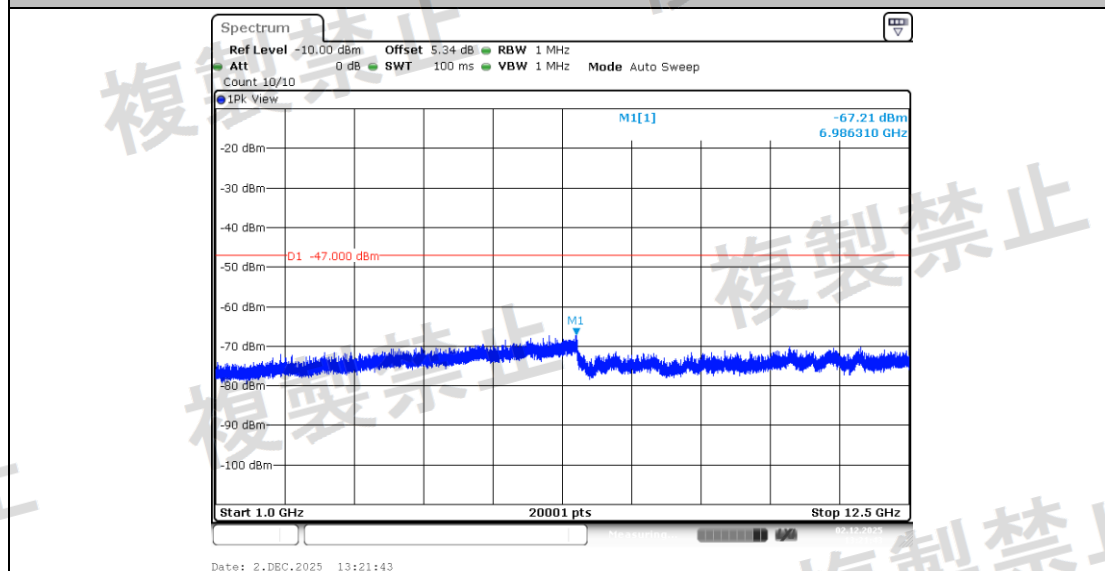




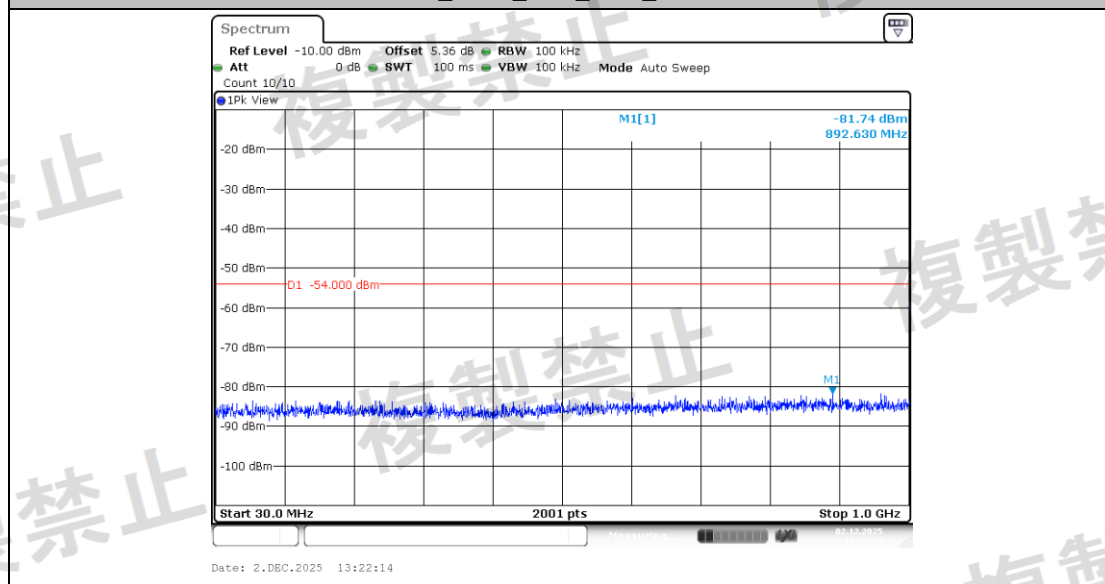
NTNV_3DH5_Ant1_2402_30~1000

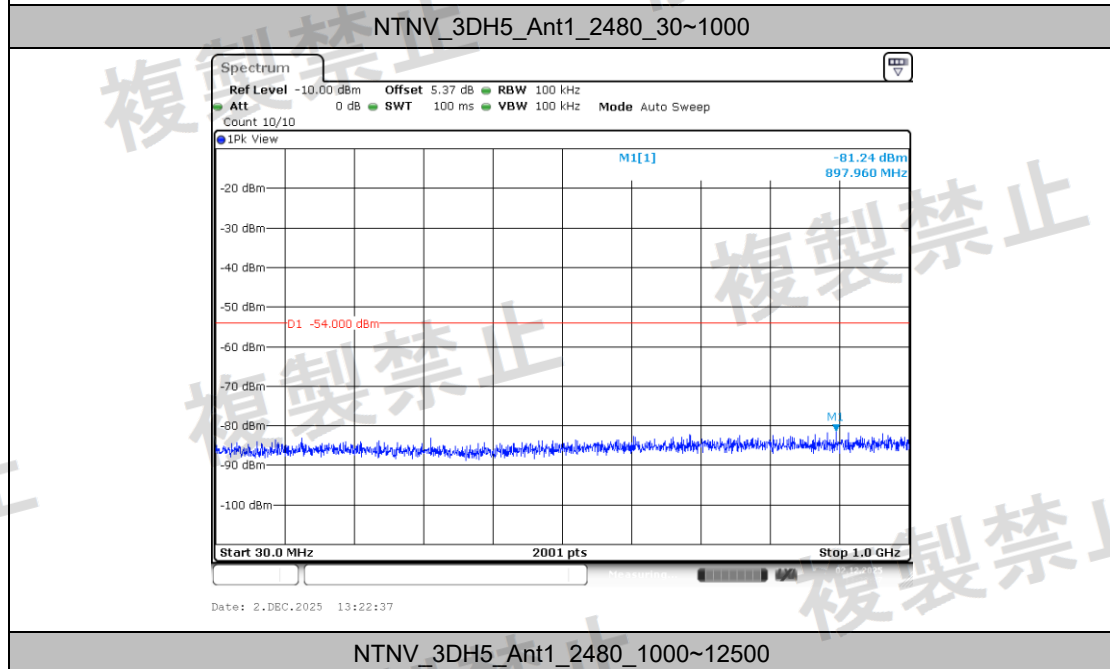
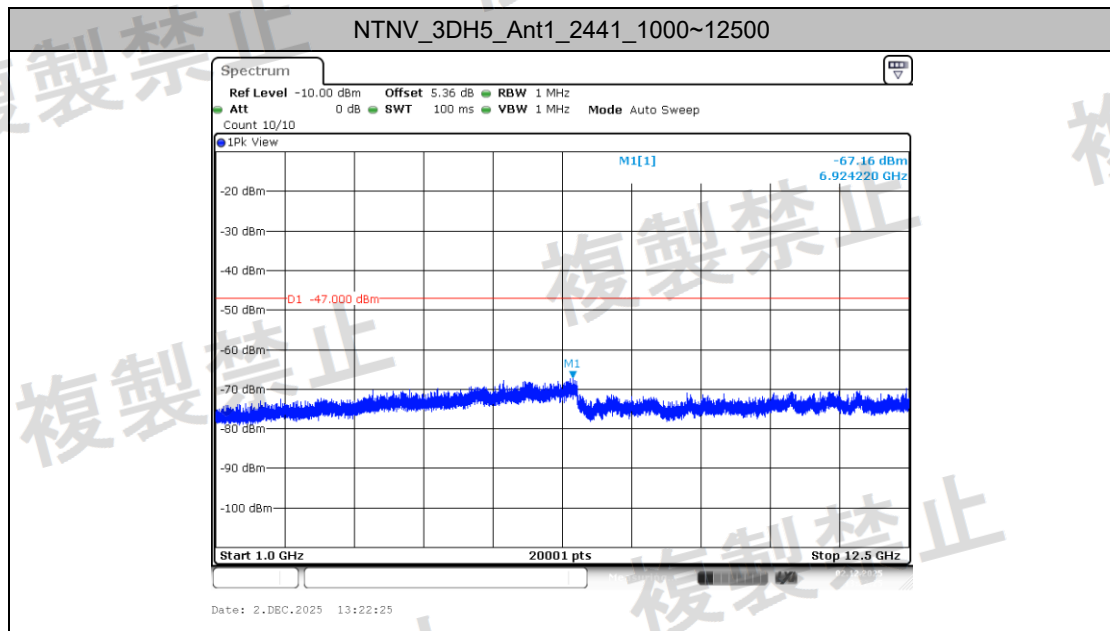


NTNV_3DH5_Ant1_2402_1000~12500

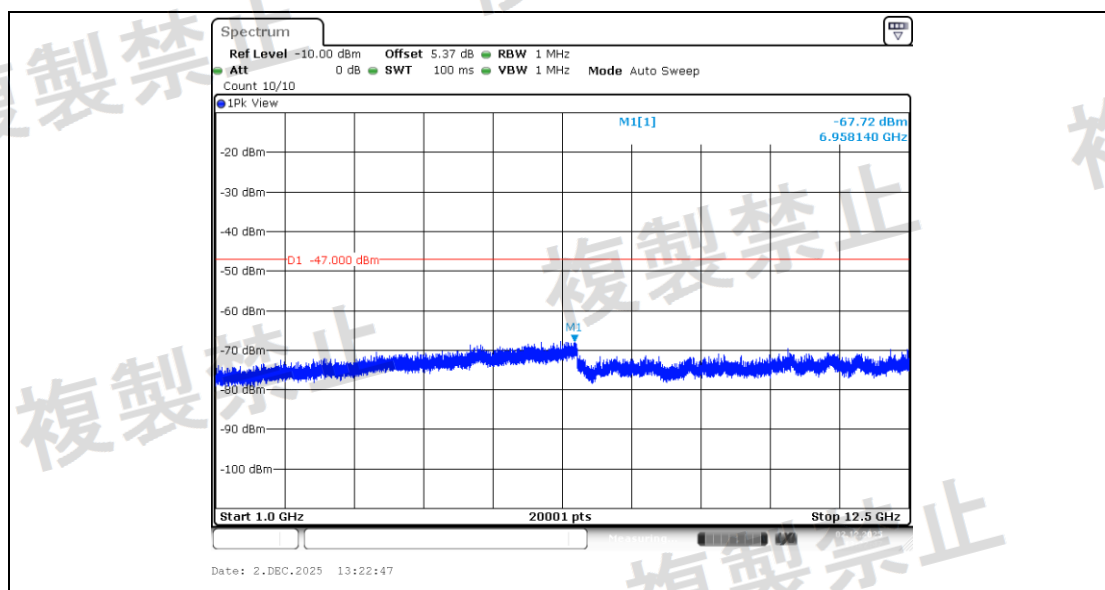


NTNV_3DH5_Ant1_2441_30~1000





NTNV_3DH5_Ant1_2480_1000~12500

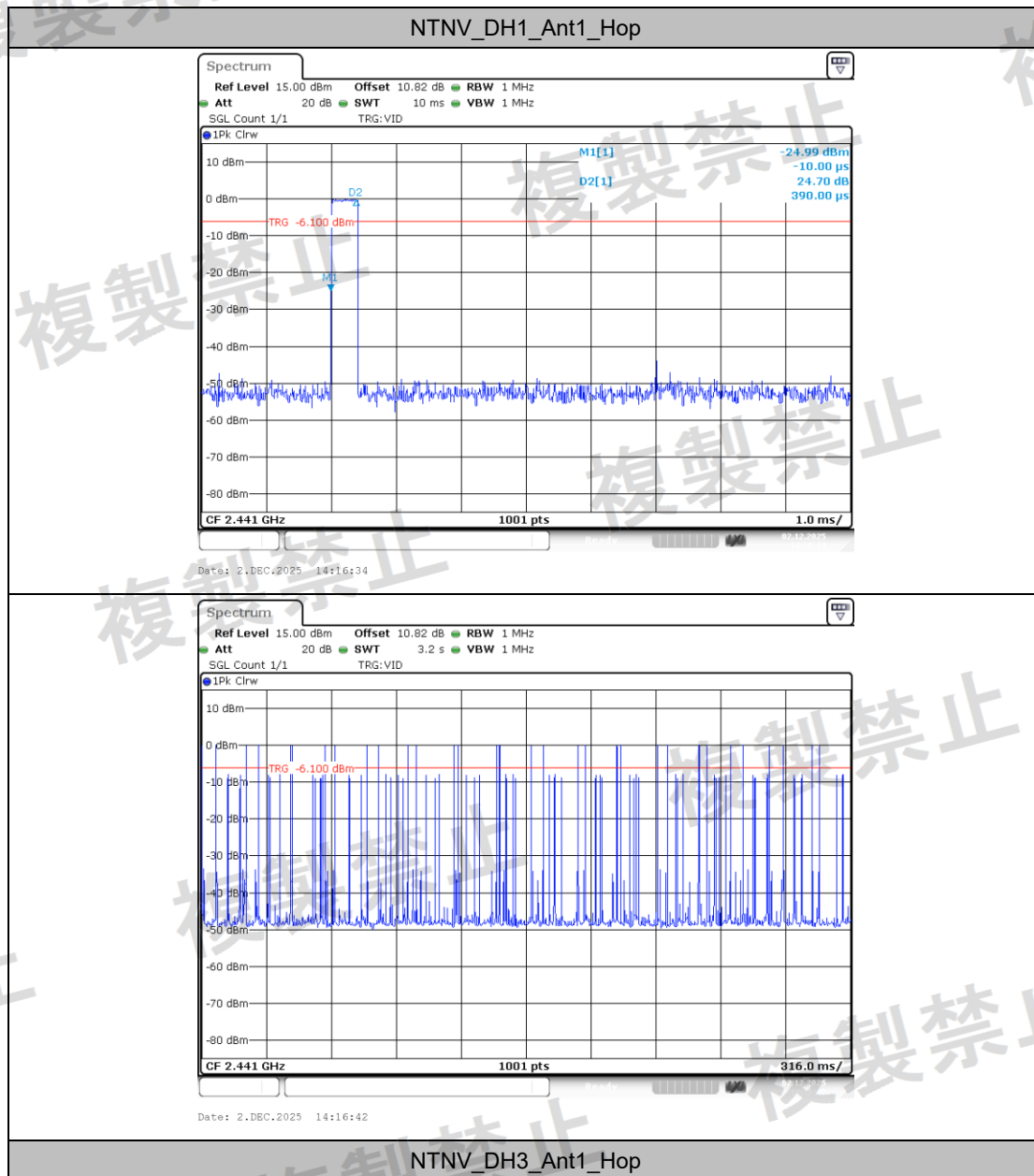


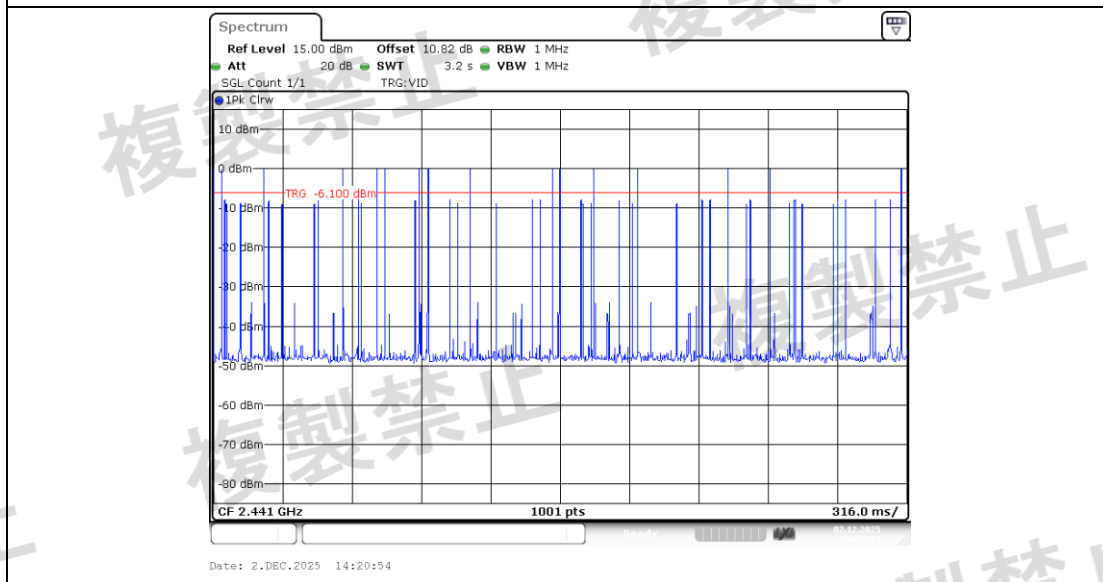
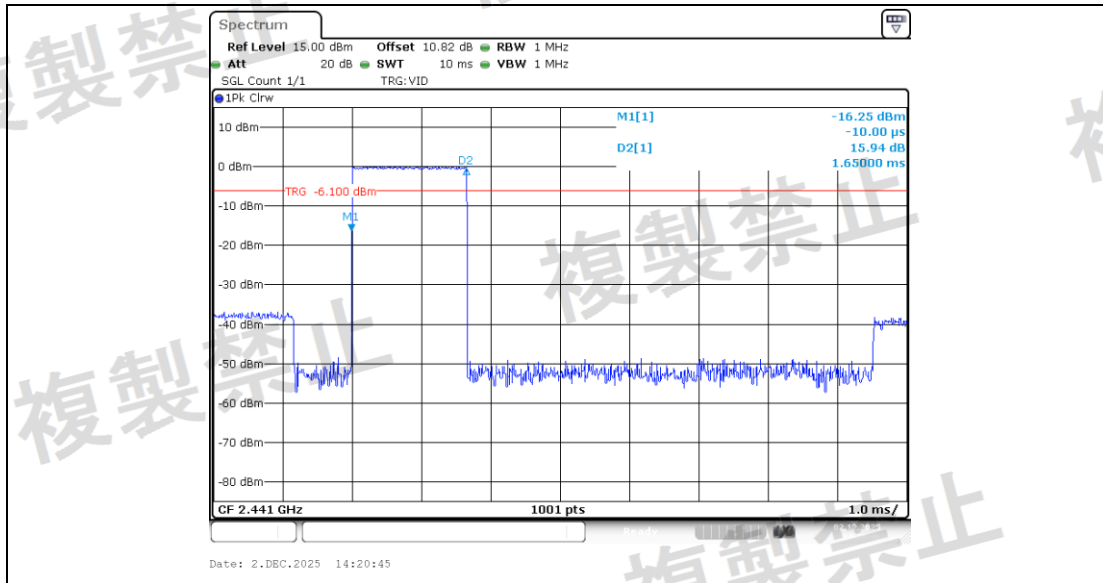
Appendix F: Dwell Time

Test Result

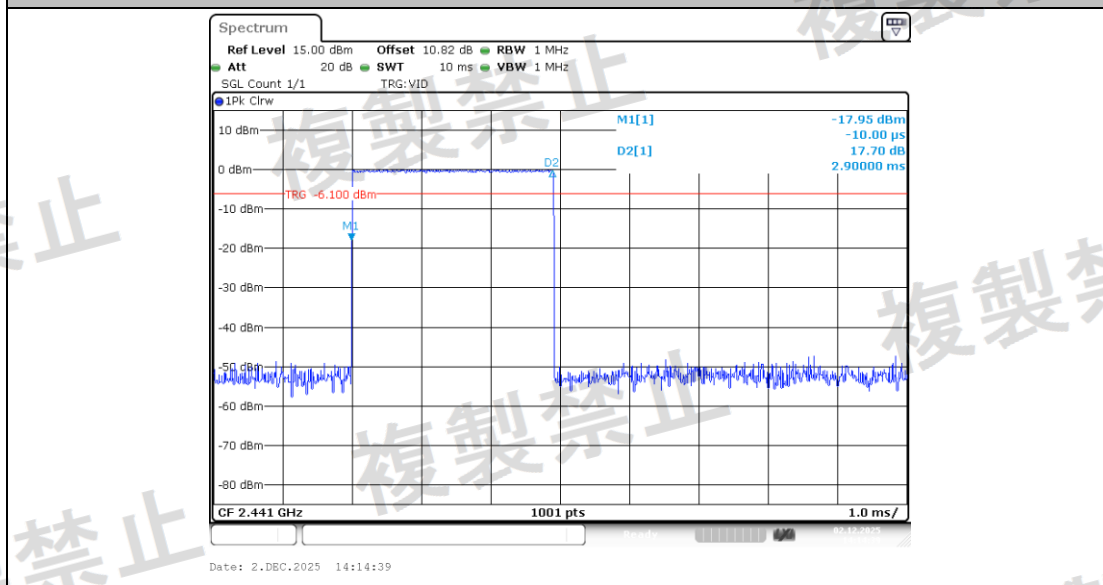
Test Condition	Test Mode	Antenna	Freq(M Hz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit [s]	Verdict
NTNV	DH1	Ant1	Hop	0.39	290	0.113	≤0.4	PASS
	DH3	Ant1	Hop	1.65	160	0.264	≤0.4	PASS
	DH5	Ant1	Hop	2.90	120	0.348	≤0.4	PASS
	2DH1	Ant1	Hop	0.39	300	0.117	≤0.4	PASS
	2DH3	Ant1	Hop	1.64	150	0.246	≤0.4	PASS
	2DH5	Ant1	Hop	2.90	80	0.232	≤0.4	PASS
	3DH1	Ant1	Hop	0.39	290	0.113	≤0.4	PASS
	3DH3	Ant1	Hop	1.64	150	0.246	≤0.4	PASS
	3DH5	Ant1	Hop	2.90	110	0.319	≤0.4	PASS

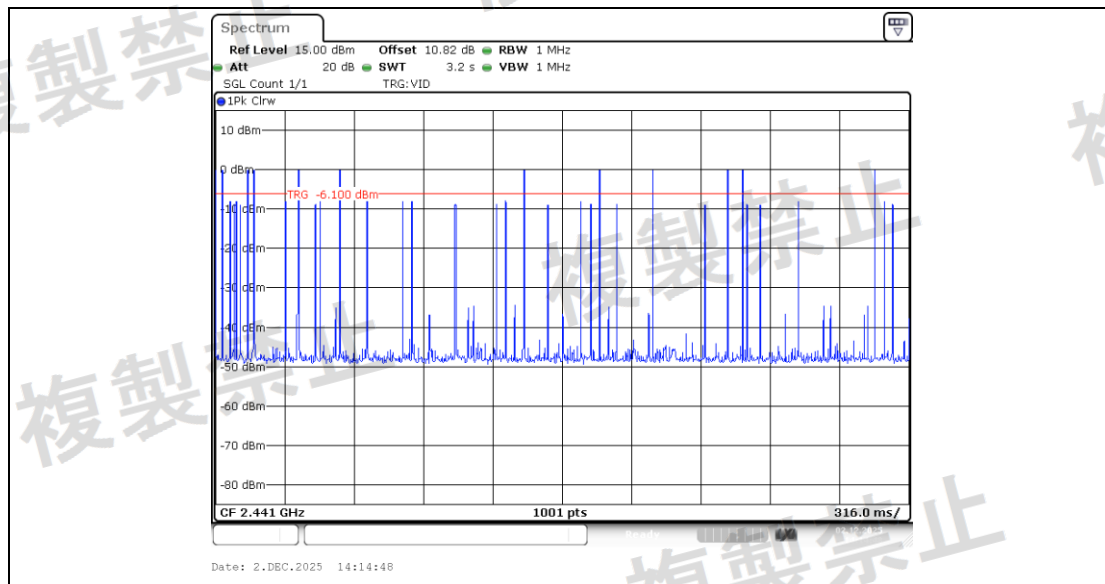
Test Graphs



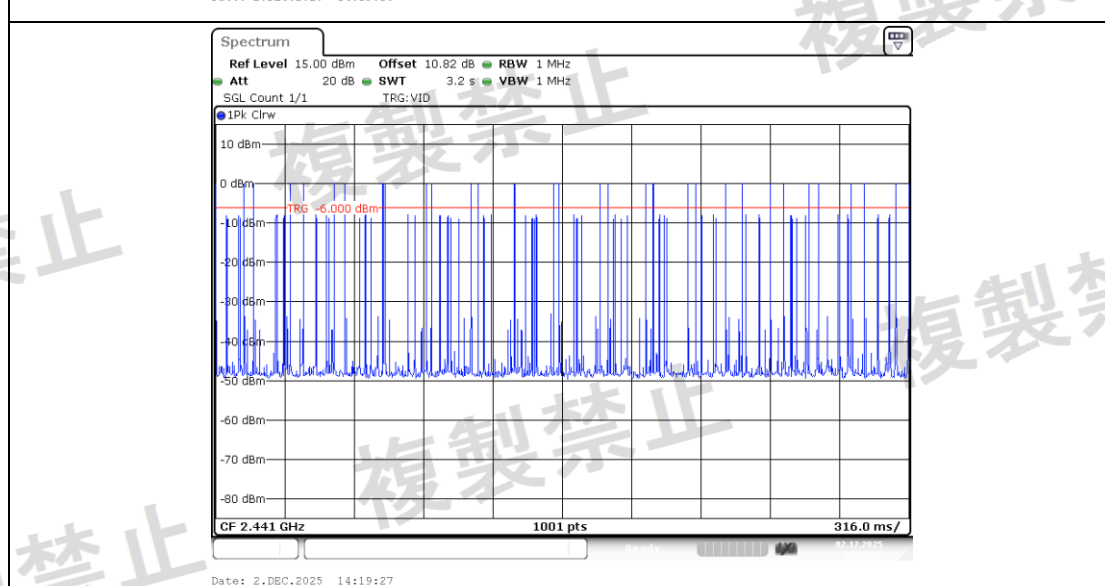
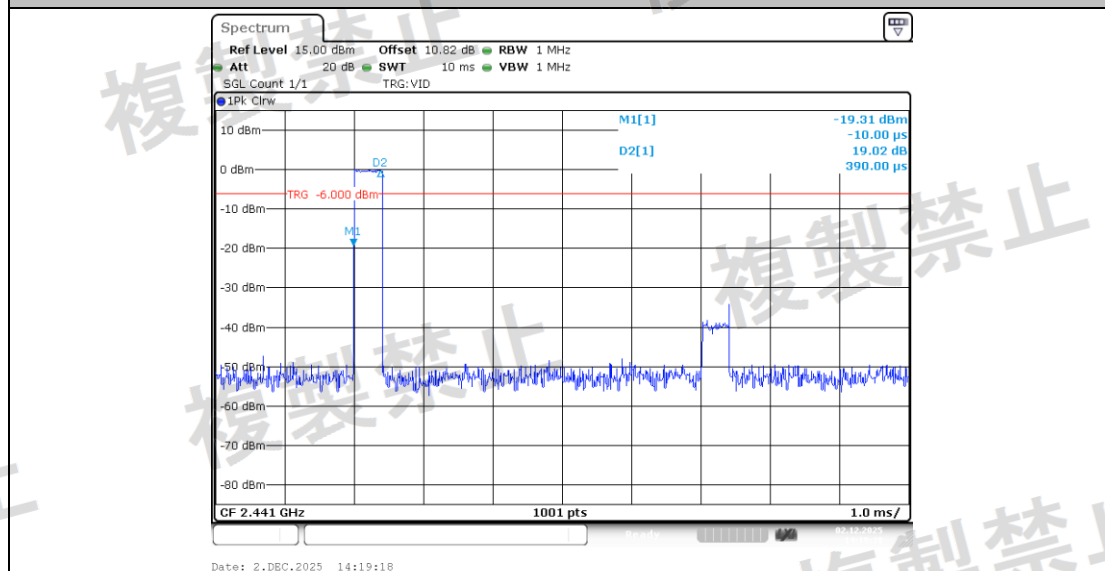


NTNV_DH5_Ant1_Hop

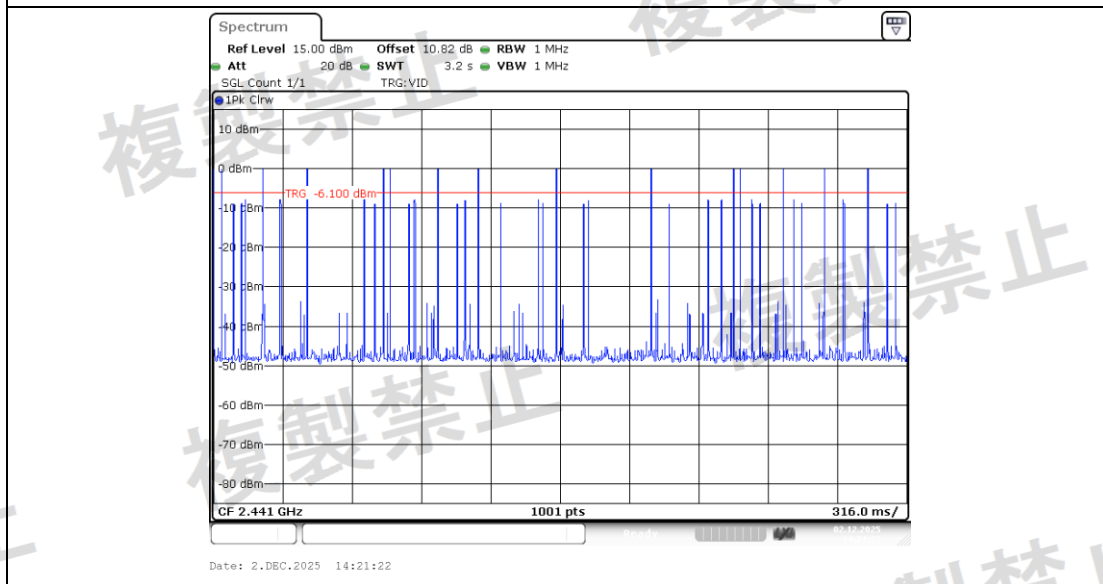
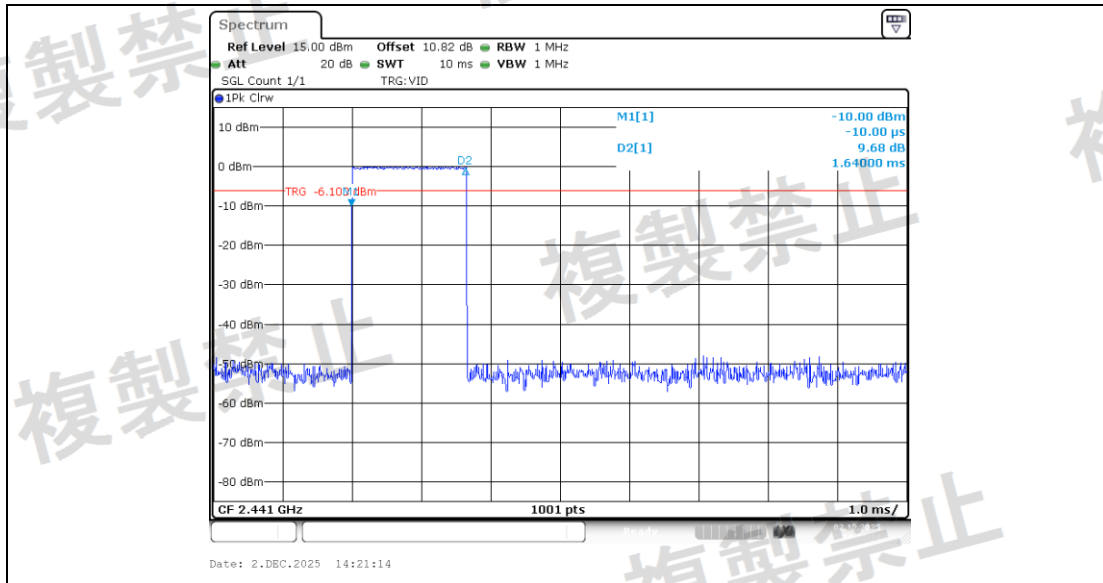




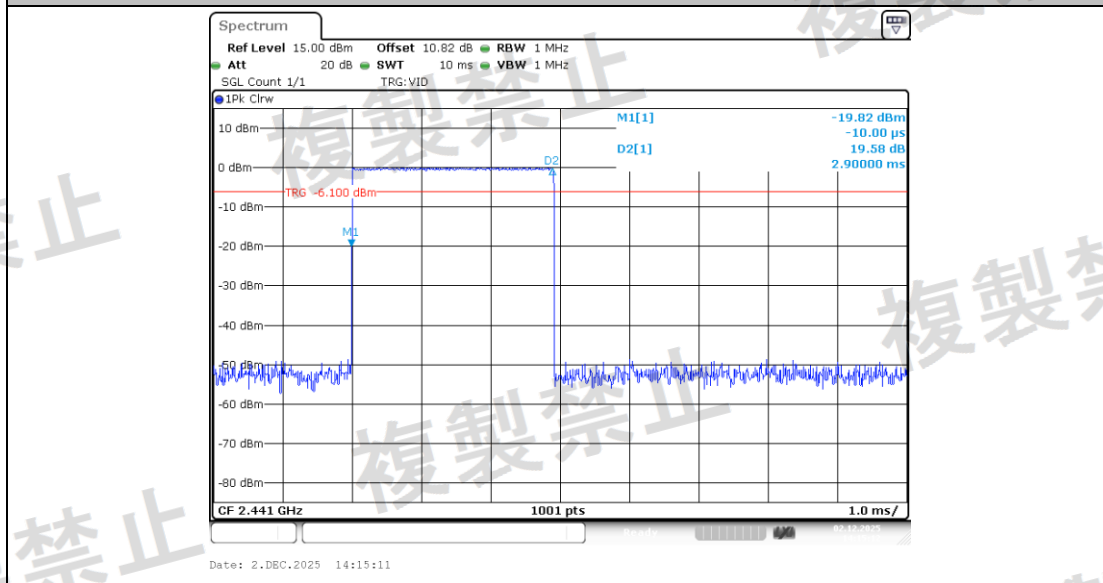
NTNV_2DH1_Ant1_Hop

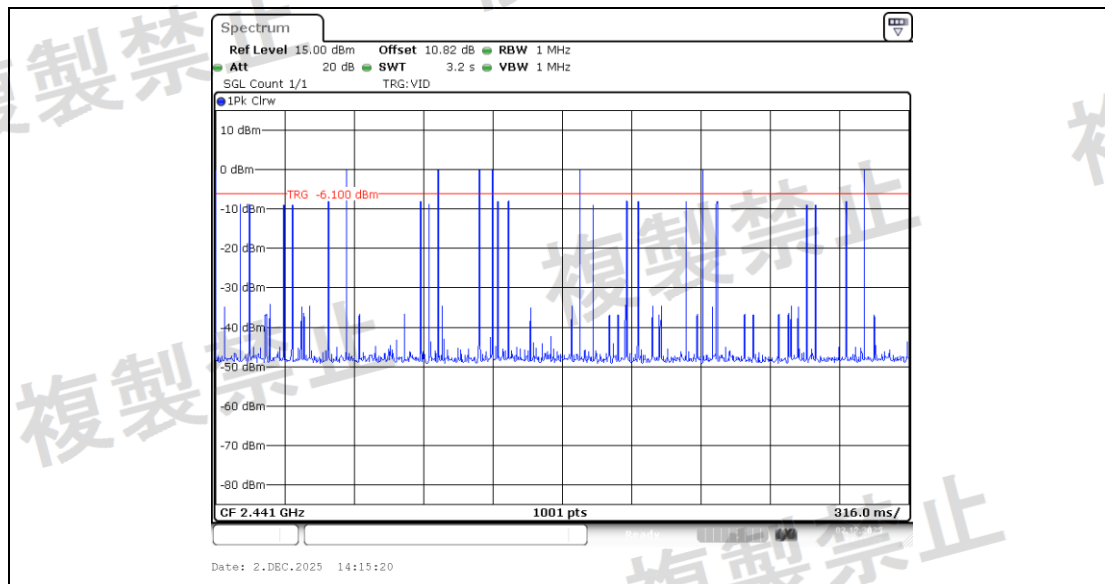


NTNV_2DH3_Ant1_Hop

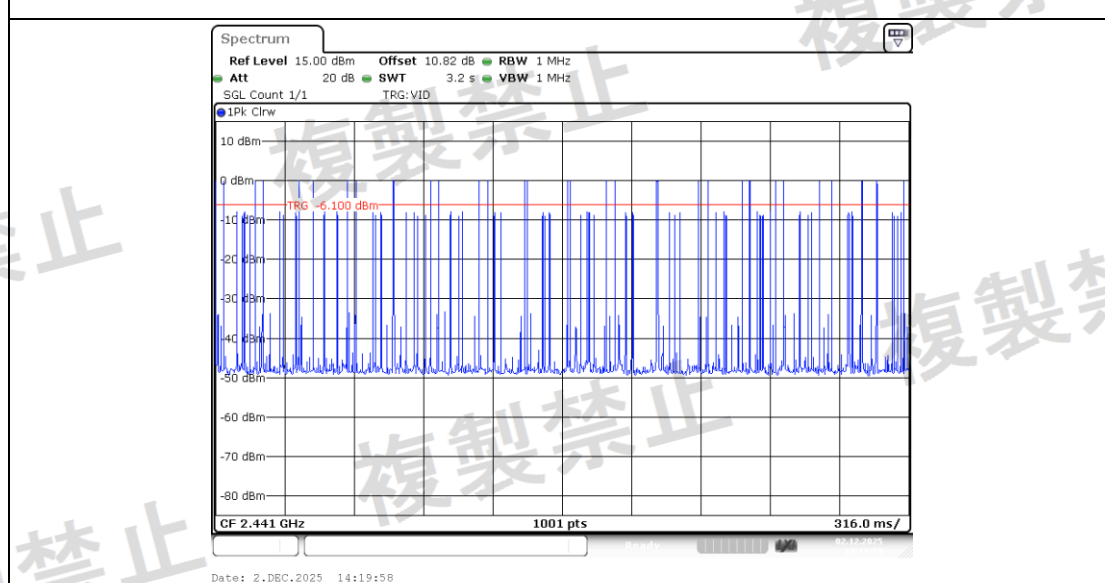
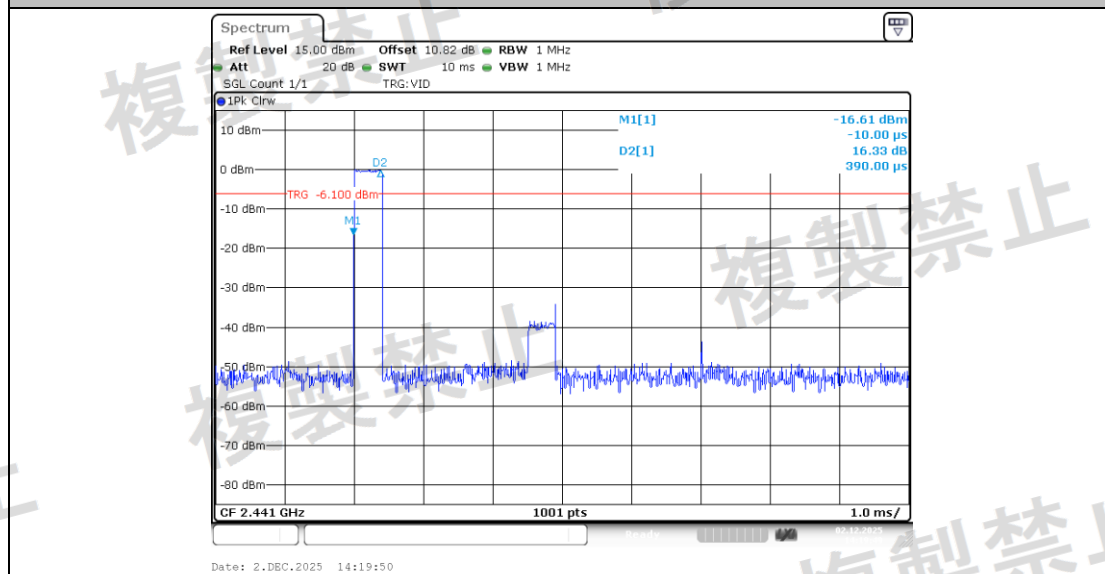


NTNV_2DH5_Ant1_Hop

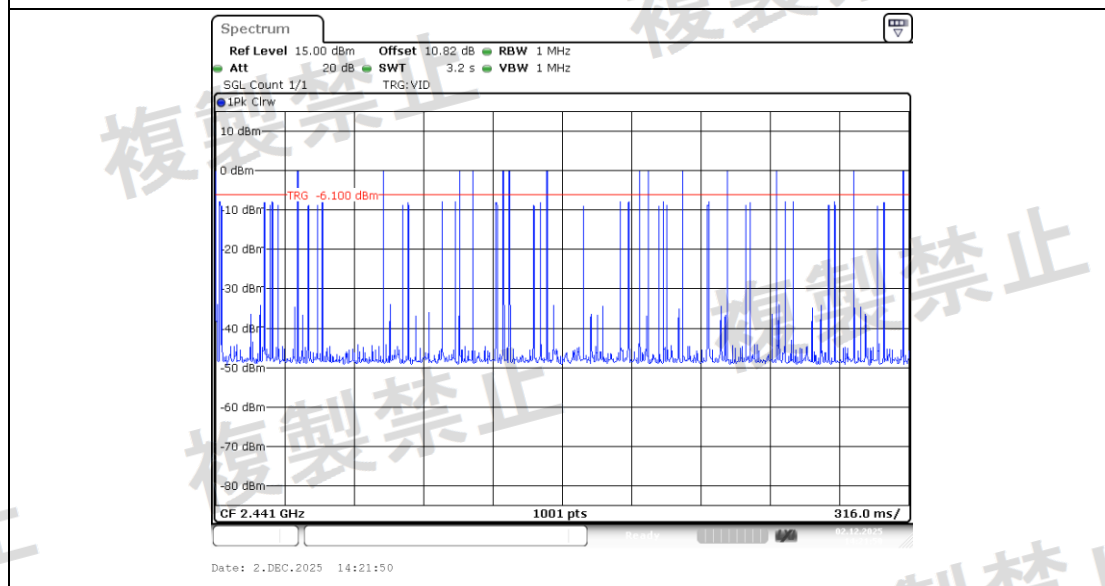
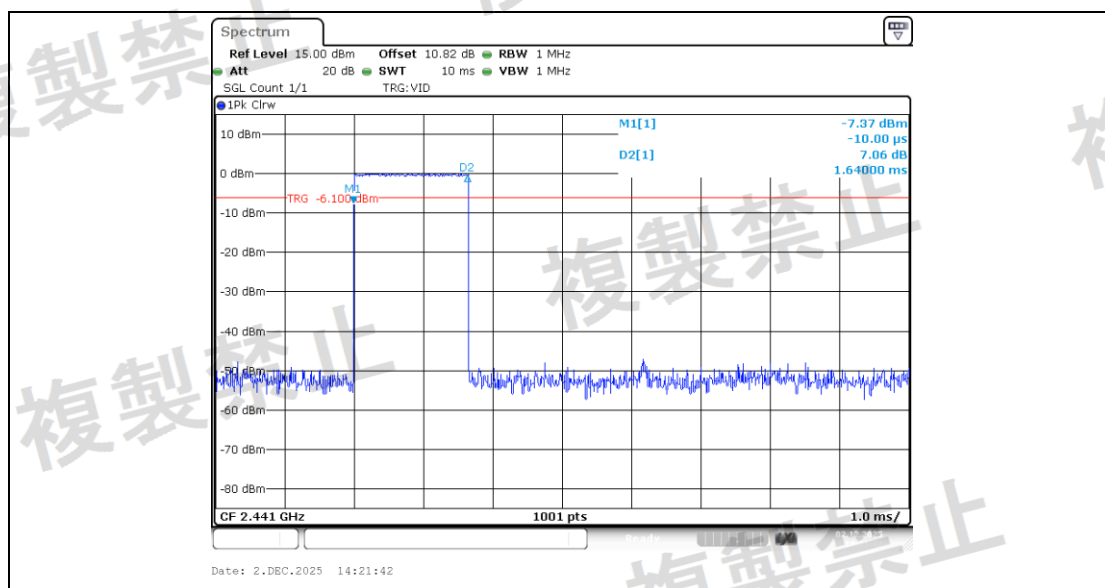




NTNV_3DH1_Ant1_Hop



NTNV_3DH3_Ant1_Hop



NTNV_3DH5_Ant1_Hop

