

Appendix Report

Report No.:	CISRR250426279
Test Engineer:	Mark Fu
Supervised by:	Rory Huang

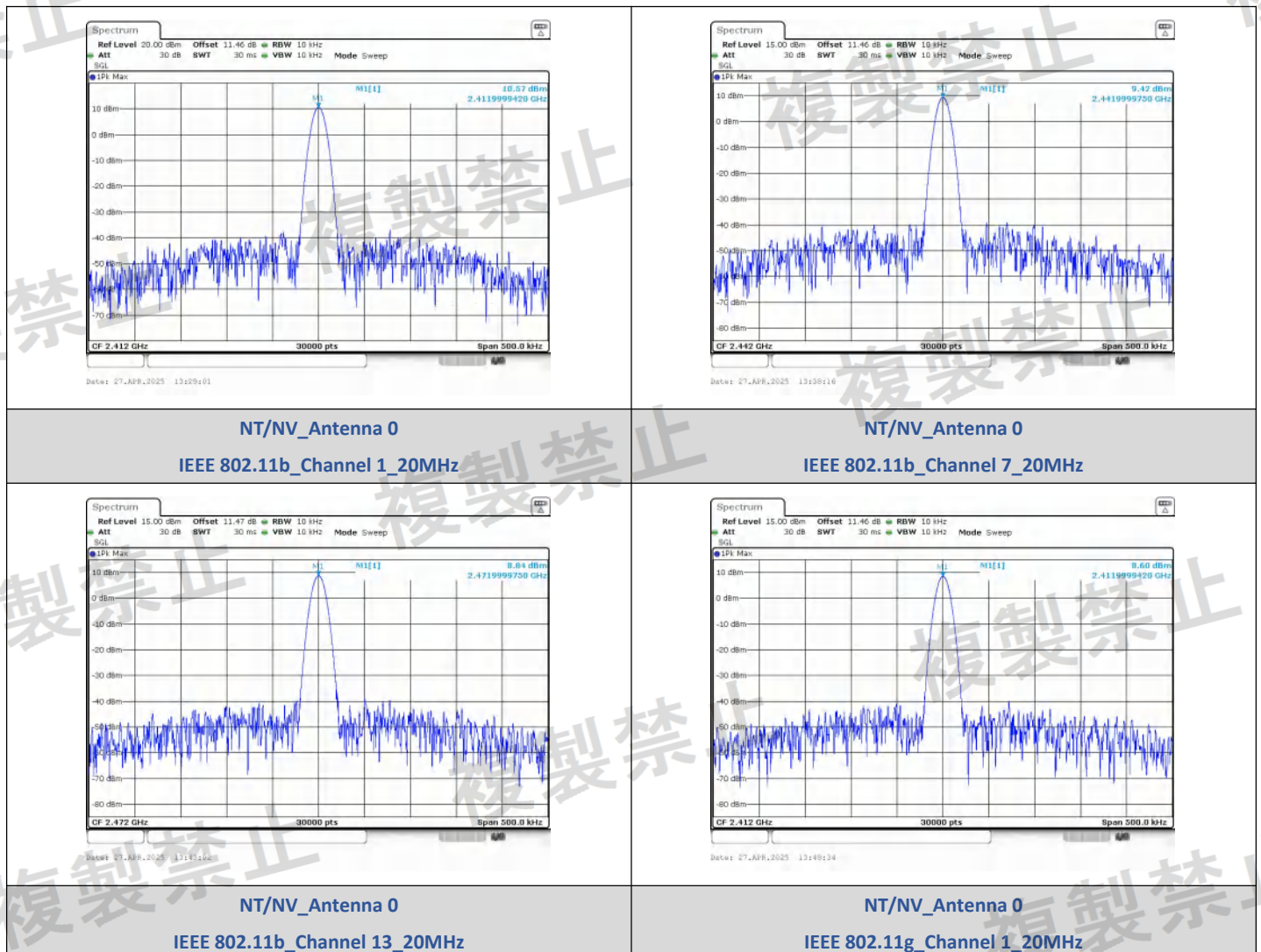
1) Frequency Tolerance

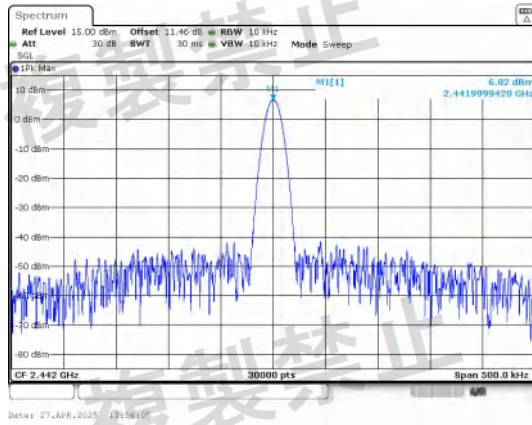
Test Result

Condition	Mode	Ch.	Antenna	Center Frequency (MHz)	Measured Value (MHz)	Deviation (ppm)	Limit (ppm)	Result
NT/NV	IEEE 802.11b(CW)	1	0	2412	2411.9999420	-0.02	± 50	PASS
		7		2442	2441.9999750	-0.01		PASS
		13		2472	2471.9999750	-0.01		PASS
	IEEE 802.11g(CW)	1		2412	2411.9999420	-0.02		PASS
		7		2442	2441.9999420	-0.02		PASS
		13		2472	2471.9999750	-0.01		PASS
	IEEE 802.11n_20(CW)	1		2412	2411.9999750	-0.01		PASS
		7		2442	2441.9999750	-0.01		PASS
		13		2472	2471.9999750	-0.01		PASS

Test Graphs

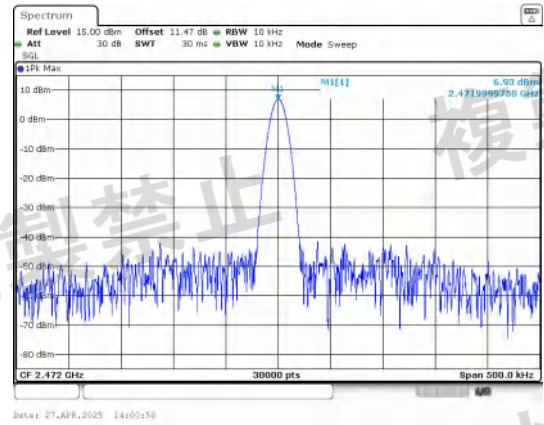
NT/NV





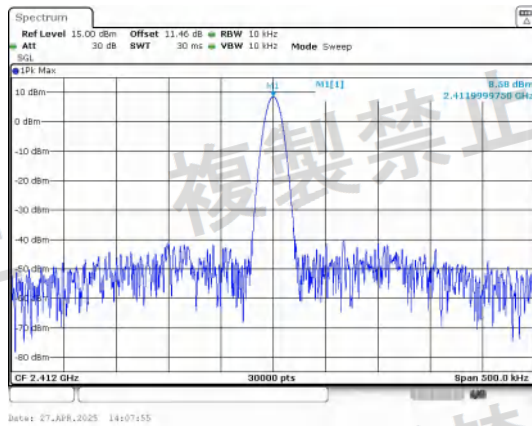
NT/NV_Antenna 0

IEEE 802.11g_Channel 7_20MHz



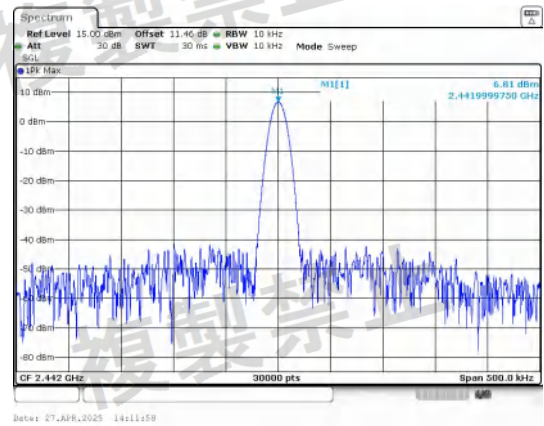
NT/NV_Antenna 0

IEEE 802.11g_Channel 13_20MHz



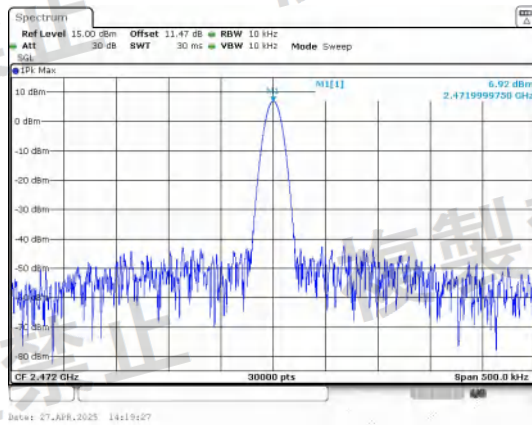
NT/NV_Antenna 0

IEEE 802.11n_Channel 1_20MHz



NT/NV_Antenna 0

IEEE 802.11n_Channel 7_20MHz



NT/NV_Antenna 0

IEEE 802.11n_Channel 13_20MHz

2) Antenna Power

Test Result

Antenna Power

Condition	Mode	Frequency (MHz)	Ant.0 (mW/MHz)	Limit (mW/MHz)	Result
NT/NV	IEEE 802.11b	2412	0.8954	10	PASS
		2442	0.4487	10	PASS
		2472	0.861	10	PASS
	IEEE 802.11g	2412	0.5445	10	PASS
		2442	0.471	10	PASS
		2472	0.4498	10	PASS
	IEEE 802.11n_20	2412	0.4375	10	PASS
		2442	0.3811	10	PASS
		2472	0.3622	10	PASS

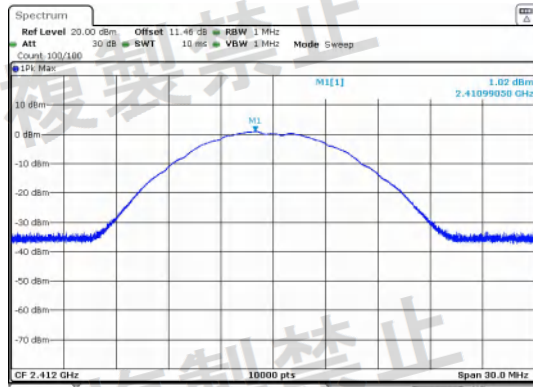
Tolerance

Condition	Mode	Frequency (MHz)	Ant.0 (mW/MHz)	Tolerance (%)	Tolerance Limit (%)	Rated power (mW/MHz)	Result
NT/NV	IEEE 802.11b	2412	0.8954	-10.46	+20	1	PASS
		2442	0.4487	-55.13	+20	1	PASS
		2472	0.861	-13.90	+20	1	PASS
	IEEE 802.11g	2412	0.5445	-45.55	+20	1	PASS
		2442	0.471	-52.90	+20	1	PASS
		2472	0.4498	-55.02	+20	1	PASS
	IEEE 802.11n_20	2412	0.4375	-56.25	+20	1	PASS
		2442	0.3811	-61.89	+20	1	PASS
		2472	0.3622	-63.78	+20	1	PASS

EIRP

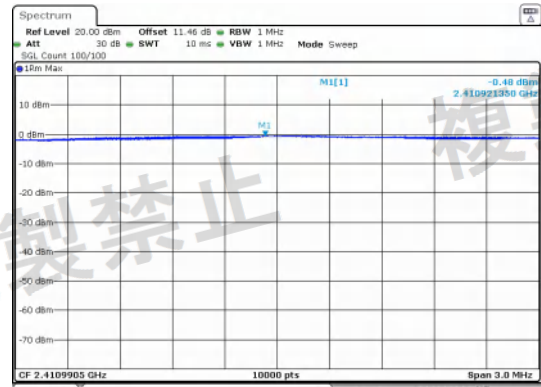
Condition	Mode	Frequency (MHz)	EIRP (mW/MHz)	Gain(dBi)	Limit (mW/MHz)	Result
NT/NV	IEEE 802.11b	2412	2.7454	1.85	16.3682	PASS
		2442	2.2987	1.85	16.3682	PASS
		2472	2.711	1.85	16.3682	PASS
	IEEE 802.11g	2412	2.3945	1.85	16.3682	PASS
		2442	2.321	1.85	16.3682	PASS
		2472	2.2998	1.85	16.3682	PASS
	IEEE 802.11n_20	2412	2.2875	1.85	16.3682	PASS
		2442	2.2311	1.85	16.3682	PASS
		2472	2.2122	1.85	16.3682	PASS

Test Graphs



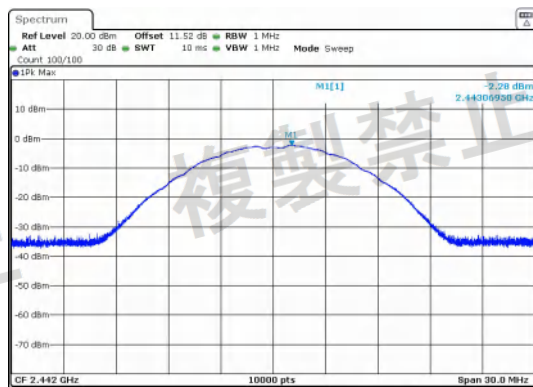
Date: 27_APR_2025 13:06:20

the peak value of the power envelope
NT/NV_IEEE 802.11b_Channel 1_Antenna 0



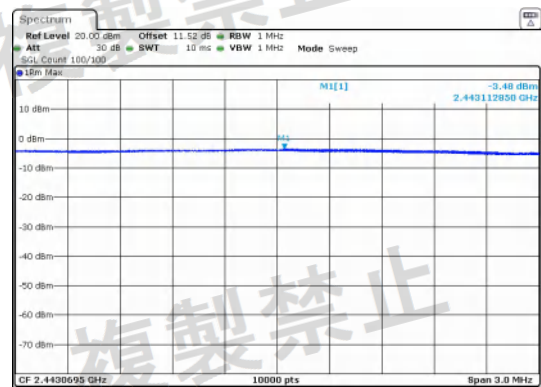
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The maximum PD
NT/NV_IEEE 802.11b_Channel 1_Antenna 0



Date: 27_APR_2025 13:32:32

the peak value of the power envelope
NT/NV_IEEE 802.11b_Channel 7_Antenna 0



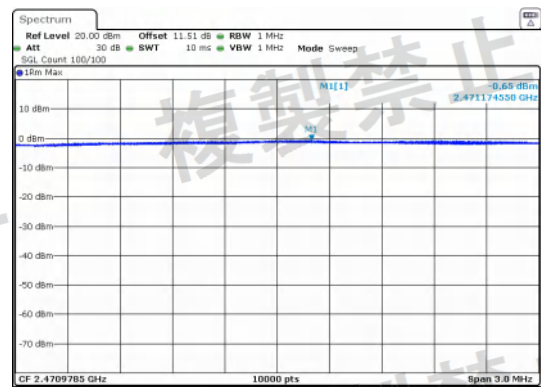
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The maximum PD
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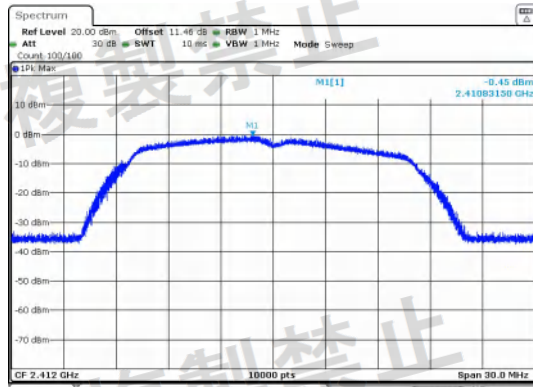
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the peak value of the power envelope
NT/NV_IEEE 802.11b_Channel 13_Antenna 0

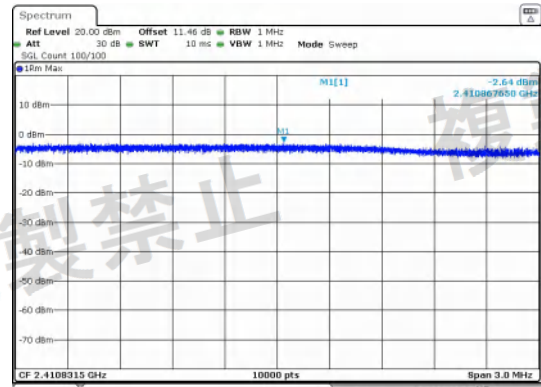


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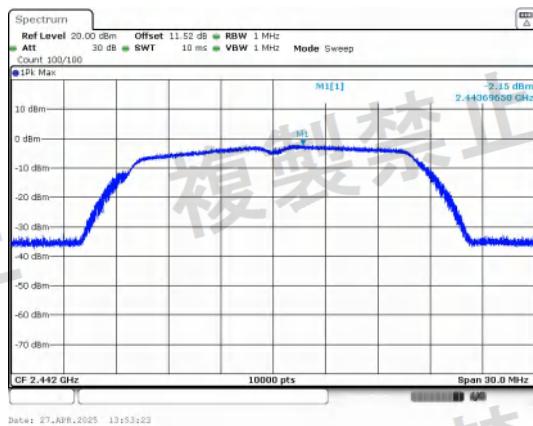
The maximum PD
NT/NV_IEEE 802.11b_Channel 13_Antenna 0



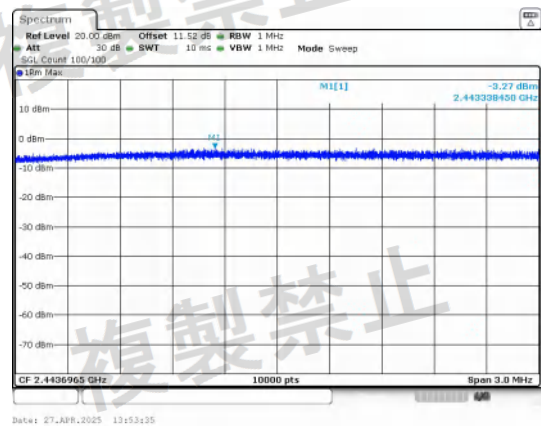
the peak value of the power envelope
NT/NV_IEEE 802.11g_Channel 1_Antenna 0



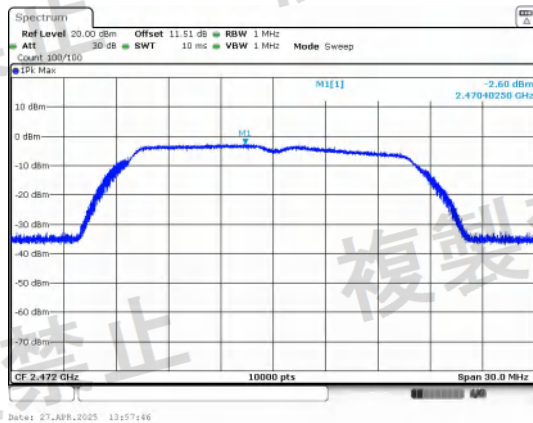
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NT/NV_IEEE 802.11g_Channel 1_Antenna 0



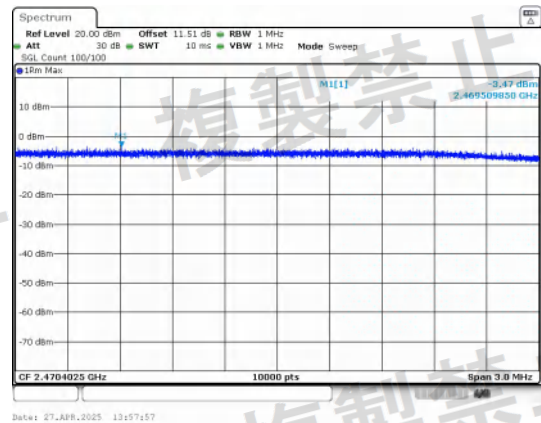
the peak value of the power envelope
NT/NV_IEEE 802.11g_Channel 7_Antenna 0



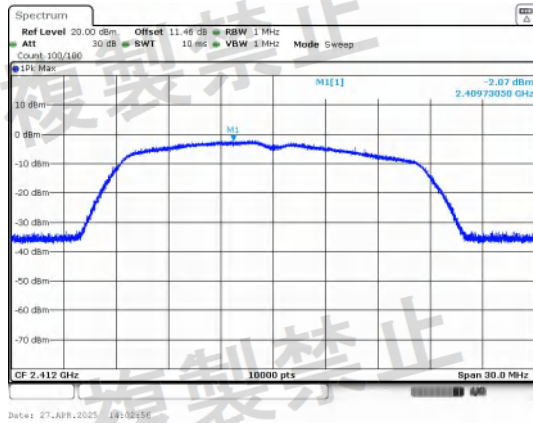
The maximum PD
NT/NV_IEEE 802.11g_Channel 7_Antenna 0



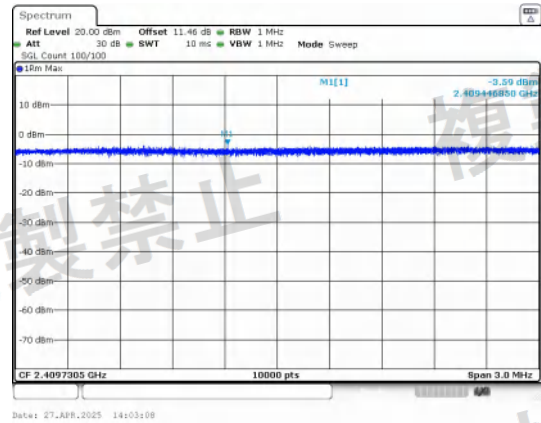
the peak value of the power envelope
NT/NV_IEEE 802.11g_Channel 13_Antenna 0



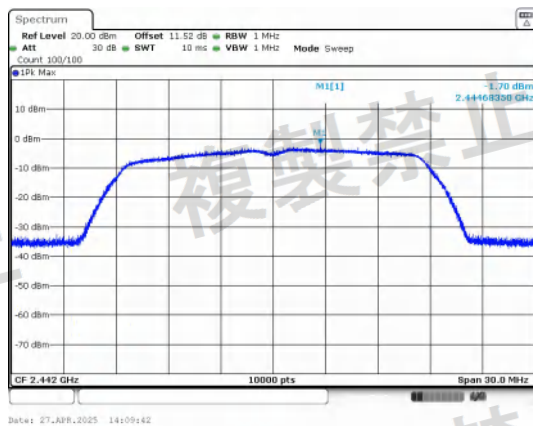
The maximum PD
NT/NV_IEEE 802.11g_Channel 13_Antenna 0



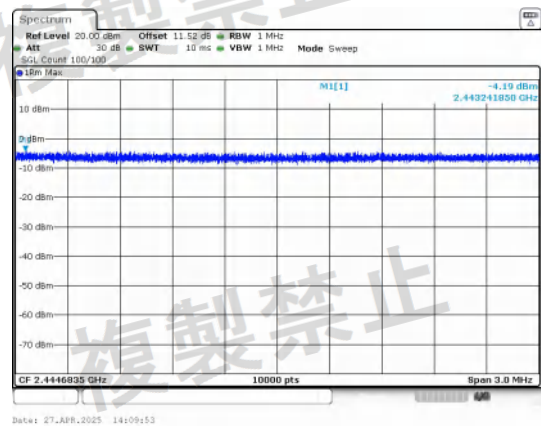
the peak value of the power envelope
NT/NV_IEEE 802.11n_20_Channel 1_Antenna 0



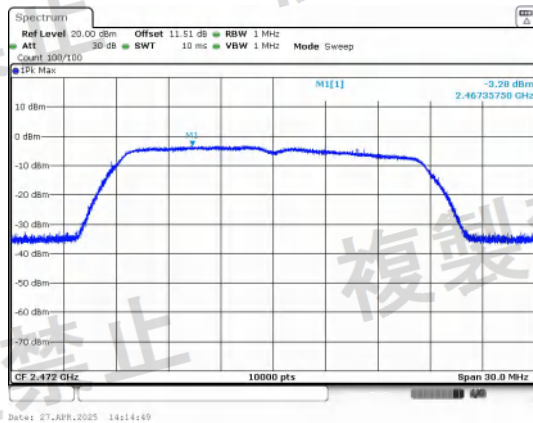
The maximum PD
NT/NV_IEEE 802.11n_20_Channel 1_Antenna 0



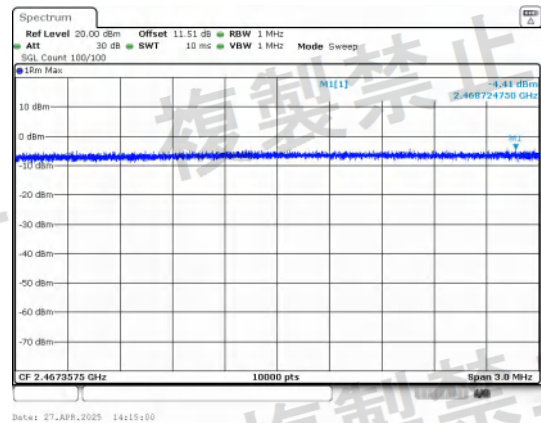
the peak value of the power envelope
NT/NV_IEEE 802.11n_20_Channel 7_Antenna 0



The maximum PD
NT/NV_IEEE 802.11n_20_Channel 7_Antenna 0



the peak value of the power envelope
NT/NV_IEEE 802.11n_20_Channel 13_Antenna 0



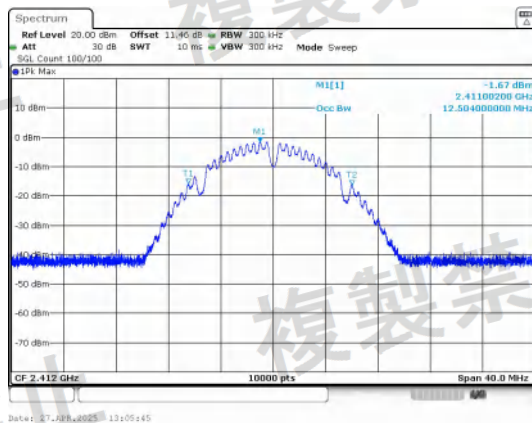
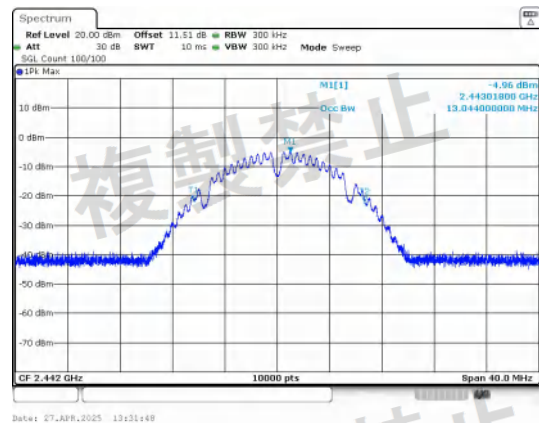
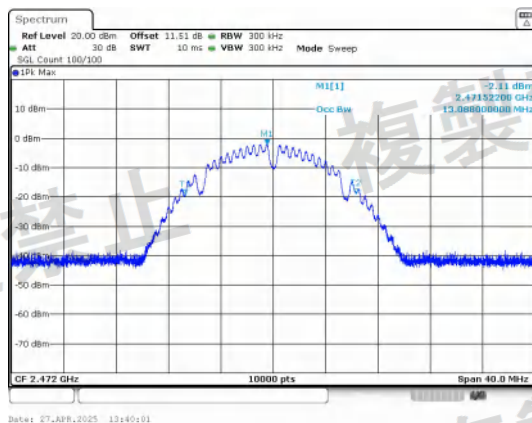
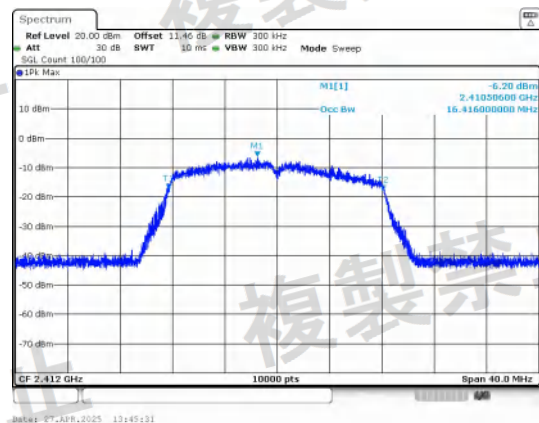
The maximum PD
NT/NV_IEEE 802.11n_20_Channel 13_Antenna 0

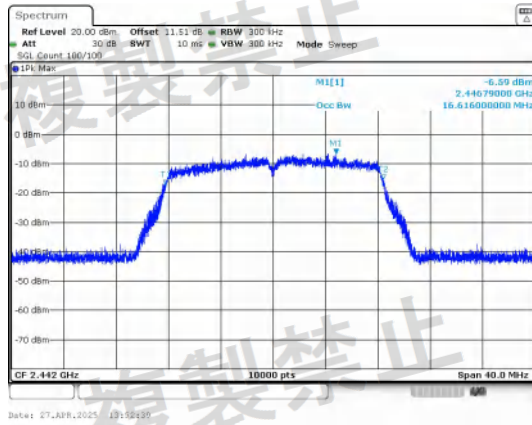
3) Occupied Bandwidth (99% BW)

Test Result

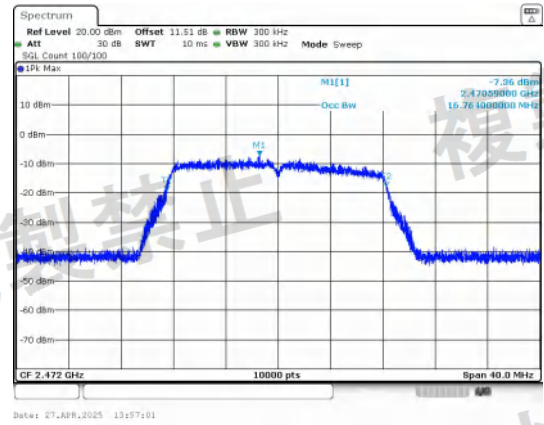
Condition	Mode	Channel	Antenna	Frequency (MHz)	99% BW (MHz)	Limit (MHz)	Result
NT/NV	IEEE 802.11b	1	0	2412	12.504	26	PASS
		7		2442	13.044		PASS
		13		2472	13.088		PASS
	IEEE 802.11g	1		2412	16.416		PASS
		7		2442	16.616		PASS
		13		2472	16.764		PASS
	IEEE 802.11n_20	1		2412	17.472		PASS
		7		2442	17.724		PASS
		13		2472	17.792		PASS

Test Graphs

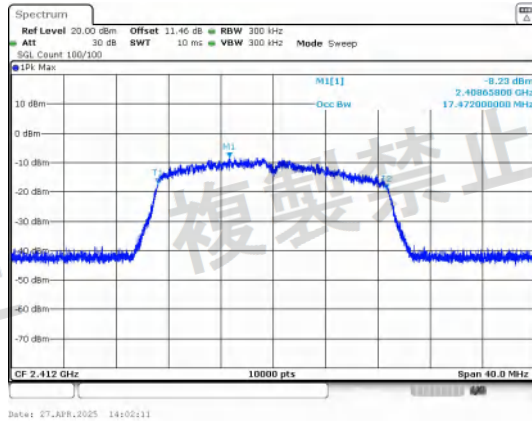




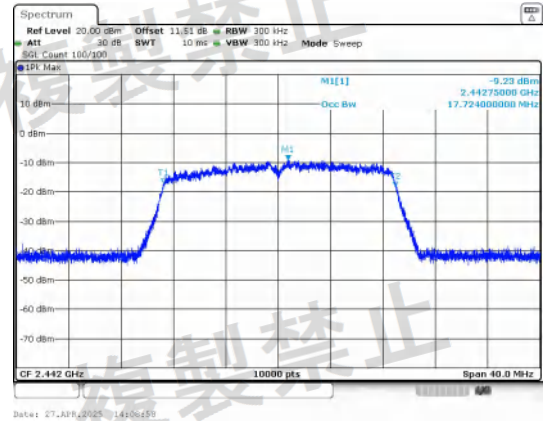
NT/NV_IEEE 802.11g_Channel 7_20MHz_Antenna 0



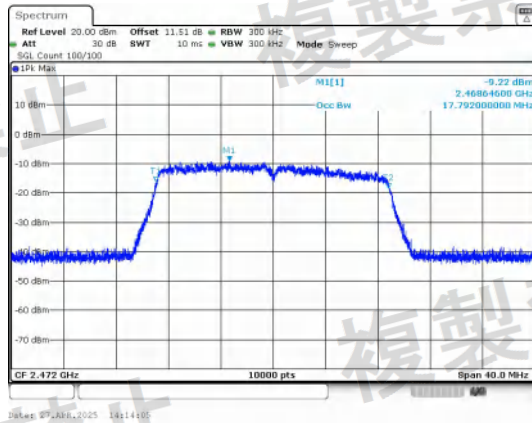
NT/NV_IEEE 802.11g_Channel 13_20MHz_Antenna 0



NT/NV_IEEE 802.11n_Channel 1_20MHz_Antenna 0



NT/NV_IEEE 802.11n_Channel 7_20MHz_Antenna 0



NT/NV_IEEE 802.11n_Channel 13_20MHz_Antenna 0

4) Spreading Bandwidth (90% BW)

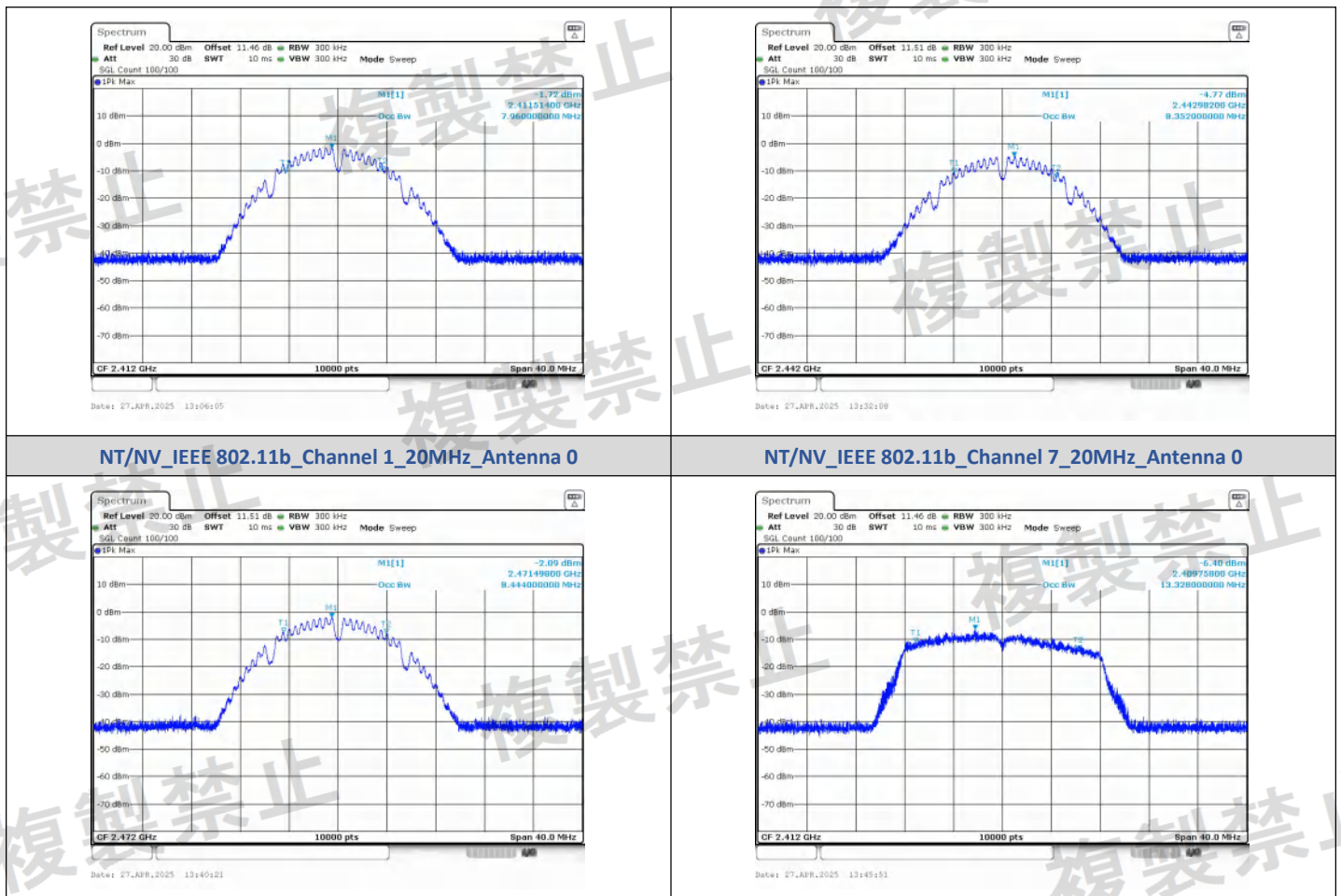
Test Result

Condition	Mode	Channel	Antenna	Frequency (MHz)	90% SBW (MHz)	Spreading Bandwidth Limit (kHz)	Spreading factor	Spreading factor Limit	Result
NT/NV	IEEE 802.11b	1	0	2412	7.960	500	5.7891	5	PASS
		7		2442	8.352		6.0742		PASS
		13		2472	8.444		6.1411		PASS
	IEEE 802.11g	1		2412	13.328		8.8853		PASS
		7		2442	14.096		9.3973		PASS
		13		2472	14.336		9.5573		PASS
	IEEE 802.11n_20	1		2412	14.100		9.4		PASS
		7		2442	15.056		10.0373		PASS
		13		2472	15.296		10.1973		PASS

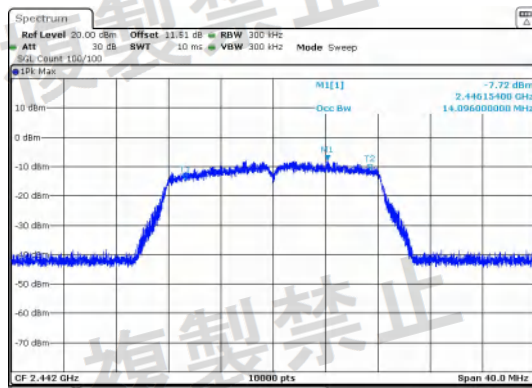
Note:

- 1) IEEE 802.11b Spreading Factor = 90% channel power bandwidth / 1.375.
- 2) IEEE 802.11g and IEEE 802.11n-HT20 Spreading Factor = 90% channel power bandwidth / 1.5.
- 3) IEEE 802.11n-HT40 Spreading Factor = 90% channel power bandwidth / 3.

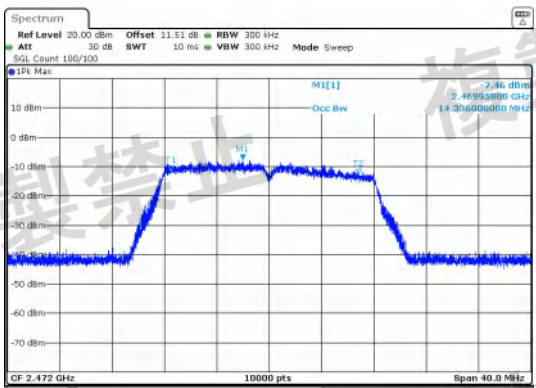
Test Graphs



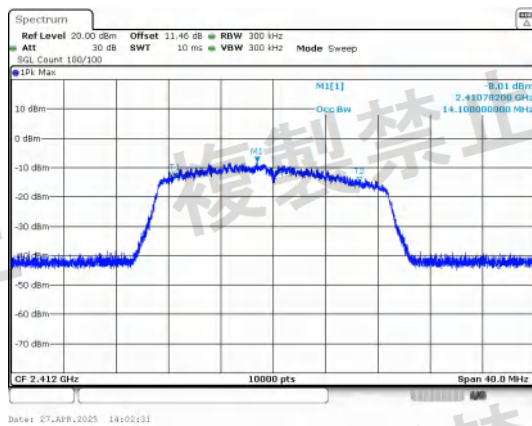
NT/NV_ IEEE 802.11b_Channel 13_20MHz_Antenna 0



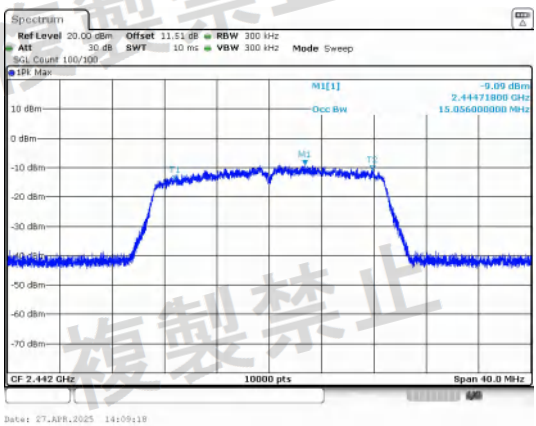
NT/NV_ IEEE 802.11g_Channel 1_20MHz_Antenna 0



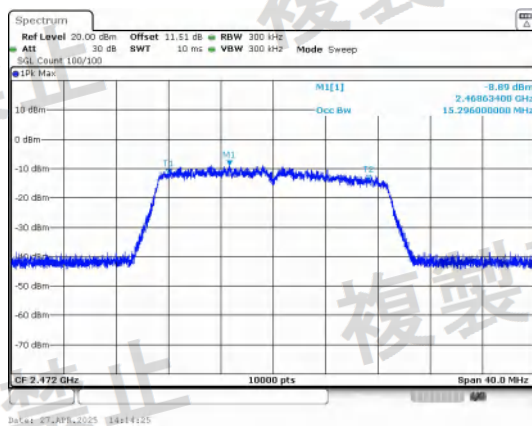
NT/NV_ IEEE 802.11g_Channel 7_20MHz_Antenna 0



NT/NV_ IEEE 802.11g_Channel 13_20MHz_Antenna 0



NT/NV_ IEEE 802.11n_Channel 1_20MHz_Antenna 0



NT/NV_ IEEE 802.11n_Channel 7_20MHz_Antenna 0

NT/NV_ IEEE 802.11n_Channel 13_20MHz_Antenna 0

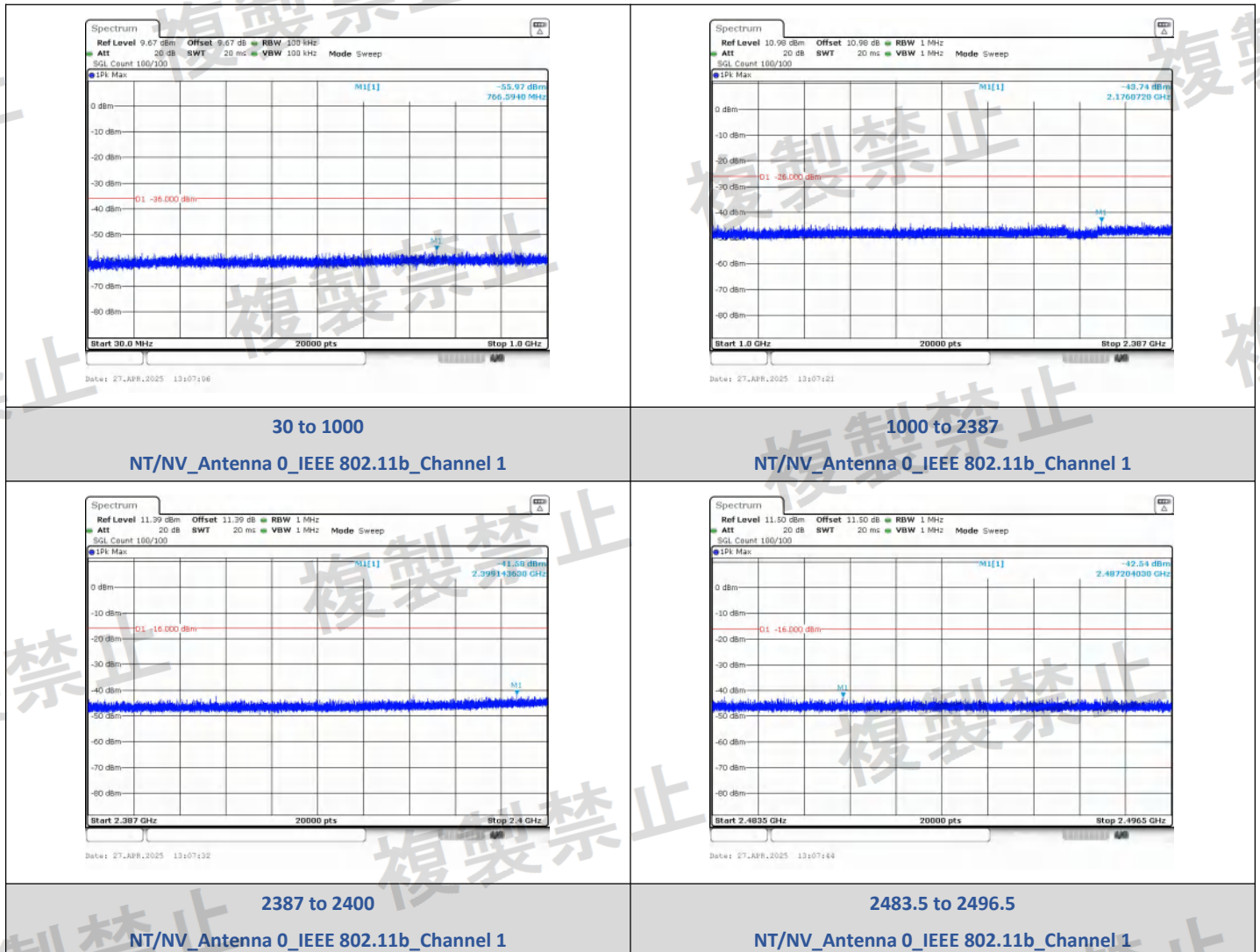
5) Spurious Emissions

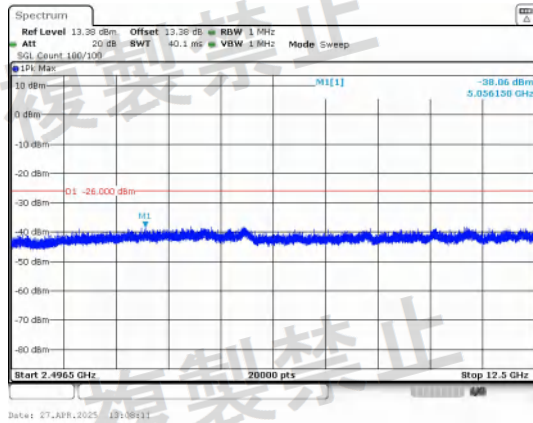
Test Result

Condition	Mode	Channel	Frequency Range	Peak (MHz)	Ant. 0	Limit	Result
NT/NV	IEEE 802.11b	1	30-1000	766.594	-55.970	-36	PASS
			1000-2387	2176.072	-43.740	-26	PASS
			2387-2400	2399.1436	-41.580	-16	PASS
			2483.5-2496.5	2487.204	-42.540	-16	PASS
			2496.5-12500	5056.15	-38.060	-26	PASS
		7	30-1000	723.817	-55.360	-36	PASS
			1000-2387	1982.655	-44.130	-26	PASS
			2387-2400	2393.9144	-43.120	-16	PASS
			2483.5-2496.5	2496.1201	-41.920	-16	PASS
			2496.5-12500	12221.65	-38.010	-26	PASS
		13	30-1000	970.1	-55.740	-36	PASS
			1000-2387	2340.431	-43.290	-26	PASS
			2387-2400	2392.9316	-43.020	-16	PASS
			2483.5-2496.5	2483.5725	-41.030	-16	PASS
			2496.5-12500	11208.8	-37.130	-26	PASS
	IEEE 802.11g	1	30-1000	824.842	-55.670	-36	PASS
			1000-2387	2300.139	-43.950	-26	PASS
			2387-2400	2394.9193	-42.160	-16	PASS
			2483.5-2496.5	2486.3935	-42.630	-16	PASS
			2496.5-12500	11972.07	-37.500	-26	PASS
		7	30-1000	597.474	-55.900	-36	PASS
			1000-2387	1413.153	-43.350	-26	PASS
			2387-2400	2395.3931	-42.150	-16	PASS
			2483.5-2496.5	2485.0207	-42.540	-16	PASS
			2496.5-12500	5808.91	-37.510	-26	PASS
		13	30-1000	709.267	-55.880	-36	PASS
			1000-2387	1296.991	-44.100	-26	PASS
			2387-2400	2394.8692	-42.930	-16	PASS
			2483.5-2496.5	2483.9189	-41.560	-16	PASS
			2496.5-12500	6969.31	-37.940	-26	PASS
	IEEE 802.11n_20	1	30-1000	884.206	-56.020	-36	PASS
			1000-2387	2228.986	-42.370	-26	PASS
			2387-2400	2399.2704	-42.480	-16	PASS
			2483.5-2496.5	2487.7572	-41.320	-16	PASS
			2496.5-12500	6911.29	-36.980	-26	PASS
		7	30-1000	801.756	-56.060	-36	PASS
			1000-2387	2237.1	-43.940	-26	PASS
			2387-2400	2395.2703	-42.790	-16	PASS

13	2483.5-2496.5	2487.4556	-42.480	-16	PASS
	2496.5-12500	5798.41	-36.690	-26	PASS
	30-1000	846.57	-56.140	-36	PASS
	1000-2387	2195.767	-43.970	-26	PASS
	2387-2400	2387.2597	-42.510	-16	PASS
	2483.5-2496.5	2483.5185	-40.430	-16	PASS
	2496.5-12500	10594.08	-37.930	-26	PASS

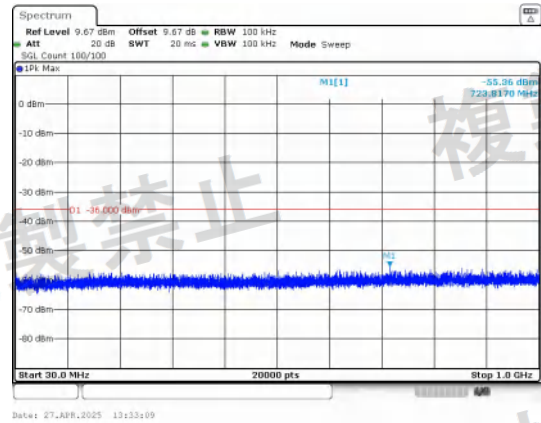
Test Graphs





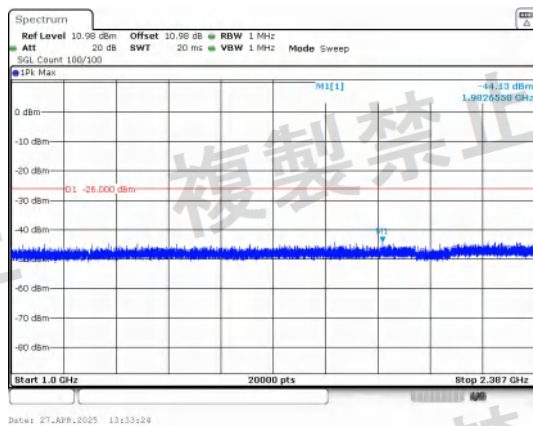
2496.5 to 12500

NT/NV_Antenna 0_IEEE 802.11b_Channel 1



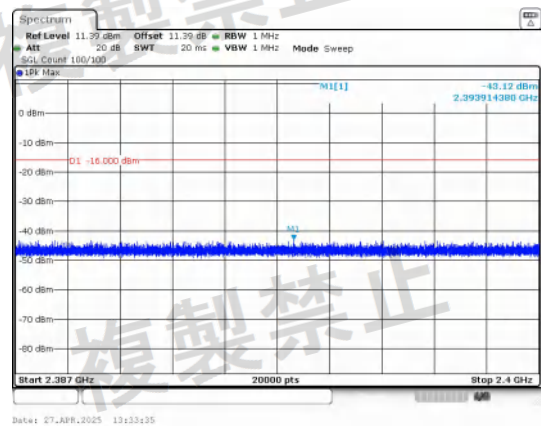
30 to 1000

NT/NV_Antenna 0_IEEE 802.11b_Channel 7



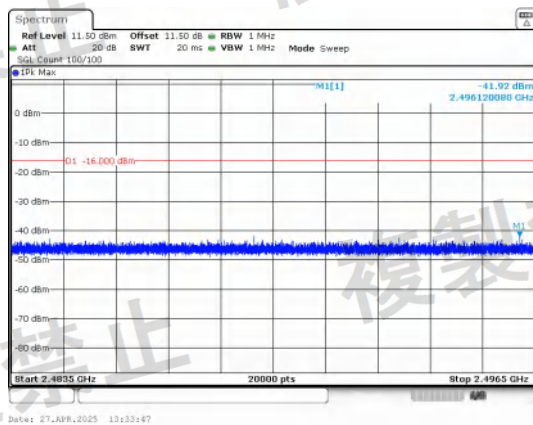
1000 to 2387

NT/NV_Antenna 0_IEEE 802.11b_Channel 7



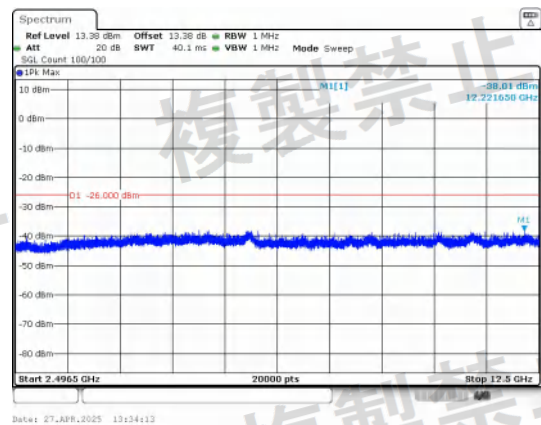
2387 to 2400

NT/NV_Antenna 0_IEEE 802.11b_Channel 7



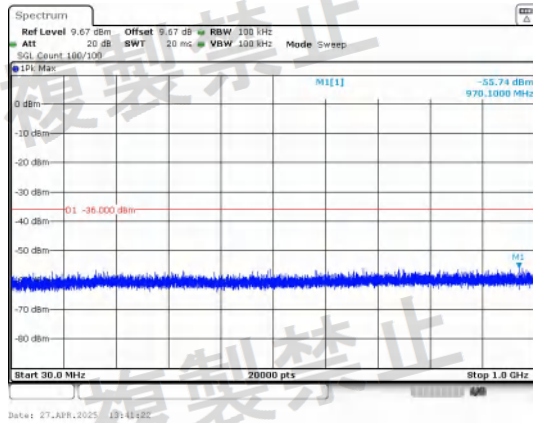
2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11b_Channel 7



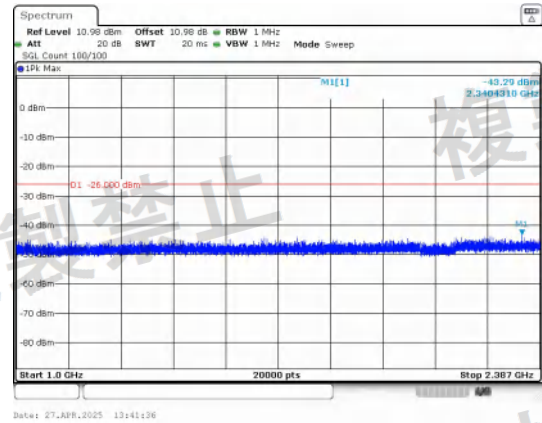
2496.5 to 12500

NT/NV_Antenna 0_IEEE 802.11b_Channel 7



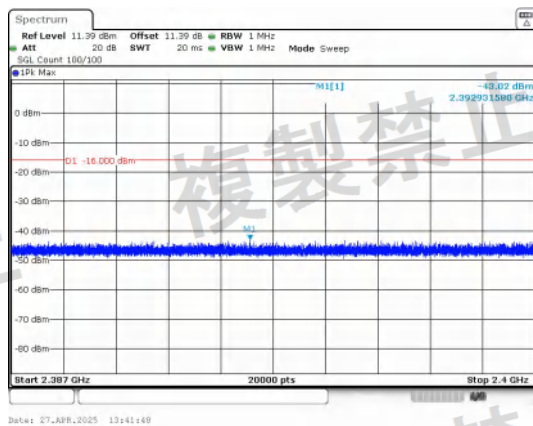
30 to 1000

NT/NV_Antenna 0_IIEEE 802.11b_Channel 13



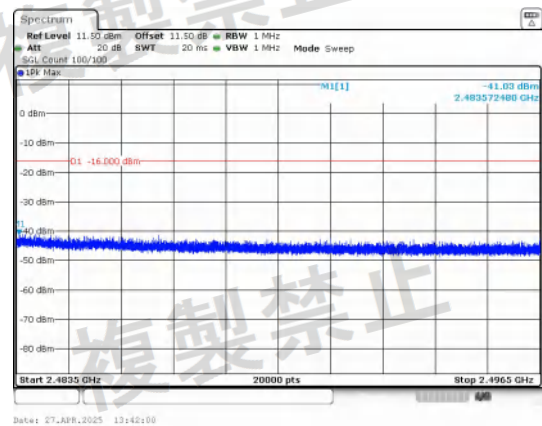
1000 to 2387

NT/NV_Antenna 0_IIEEE 802.11b_Channel 13



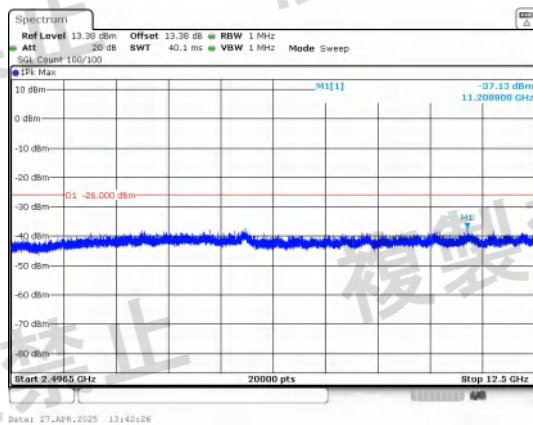
2387 to 2400

NT/NV_Antenna 0_IIEEE 802.11b_Channel 13



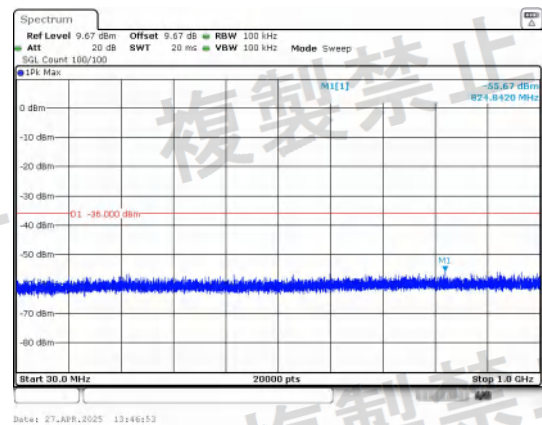
2483.5 to 2496.5

NT/NV_Antenna 0_IIEEE 802.11b_Channel 13



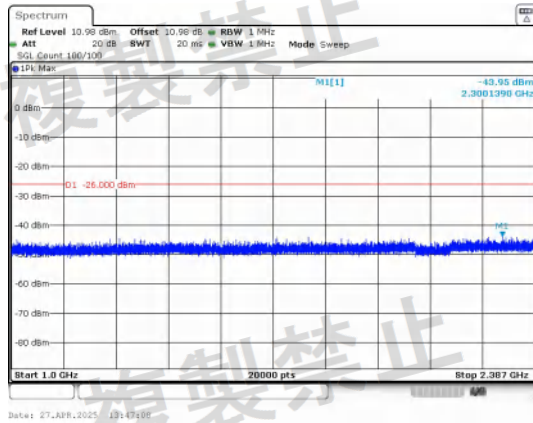
2496.5 to 12500

NT/NV_Antenna 0_IIEEE 802.11b_Channel 13



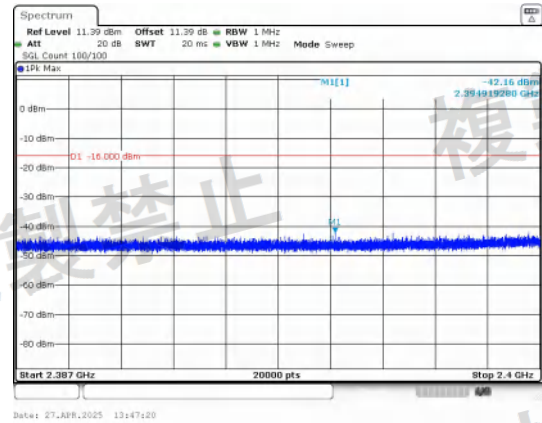
30 to 1000

NT/NV_Antenna 0_IIEEE 802.11g_Channel 1



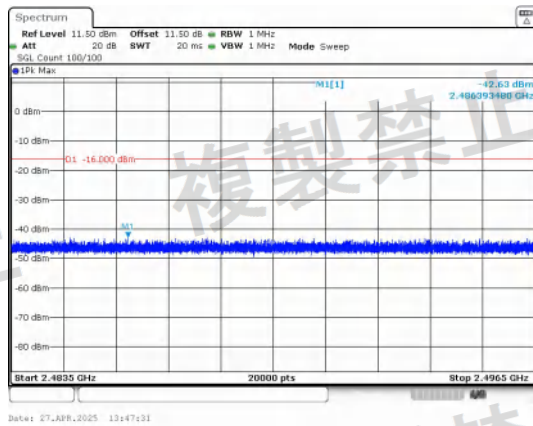
1000 to 2387

NT/NV_Antenna 0_IEEE 802.11g_Channel 1



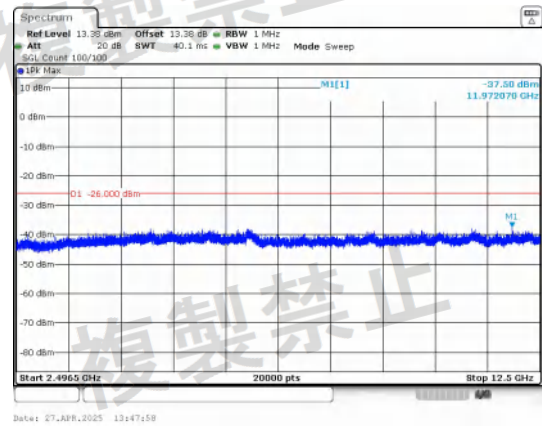
2387 to 2400

NT/NV_Antenna 0_IEEE 802.11g_Channel 1



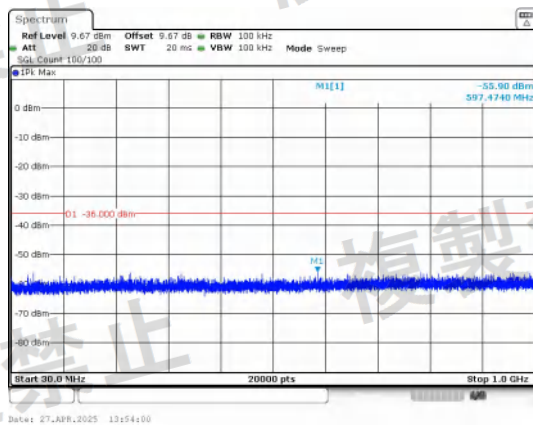
2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11g_Channel 1



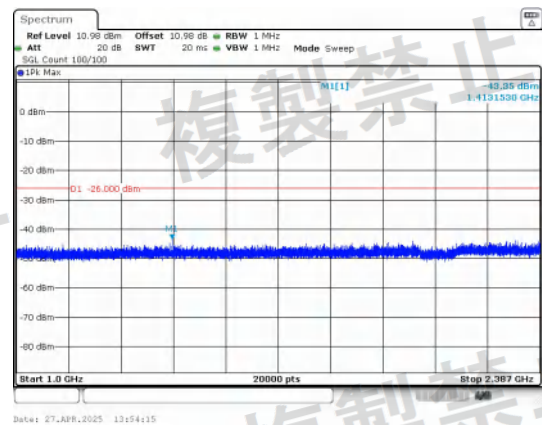
2496.5 to 12500

NT/NV_Antenna 0_IEEE 802.11g_Channel 1



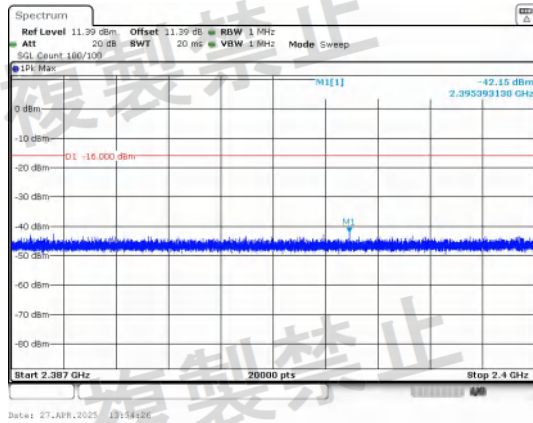
30 to 1000

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



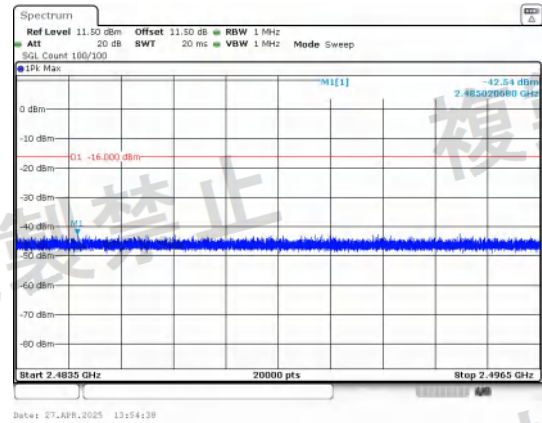
1000 to 2387

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



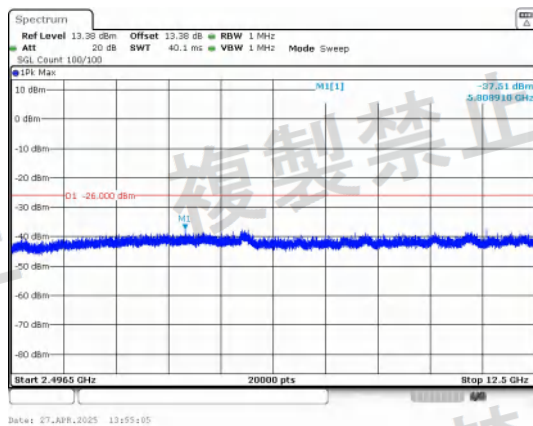
2387 to 2400

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



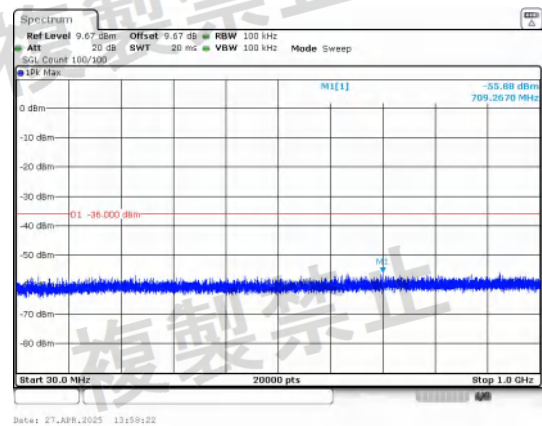
2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



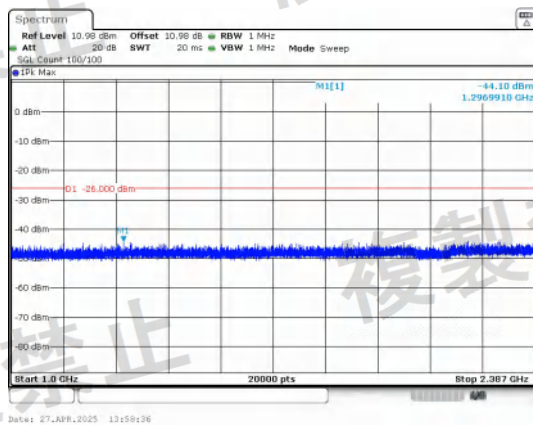
2496.5 to 12500

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



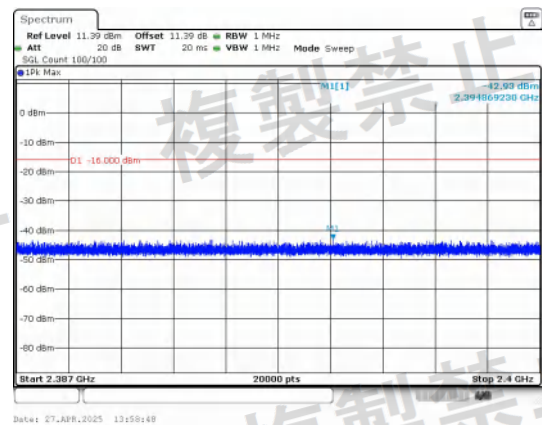
30 to 1000

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



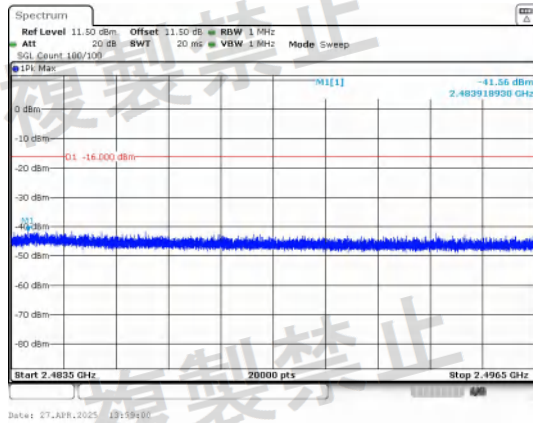
1000 to 2387

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



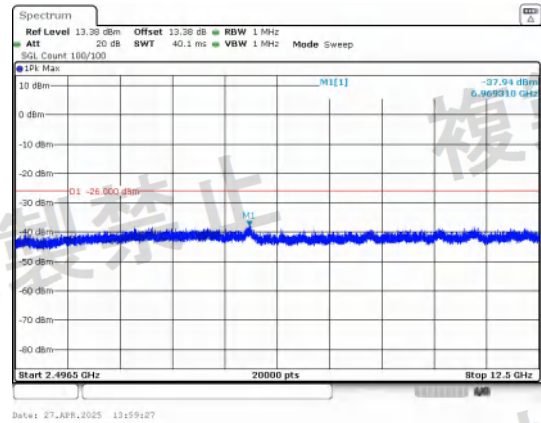
2387 to 2400

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



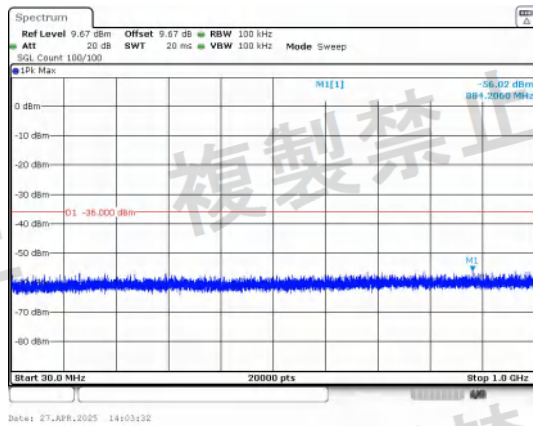
2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



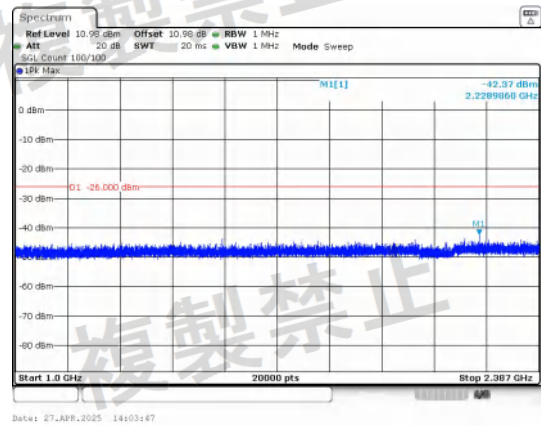
2496.5 to 12500

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



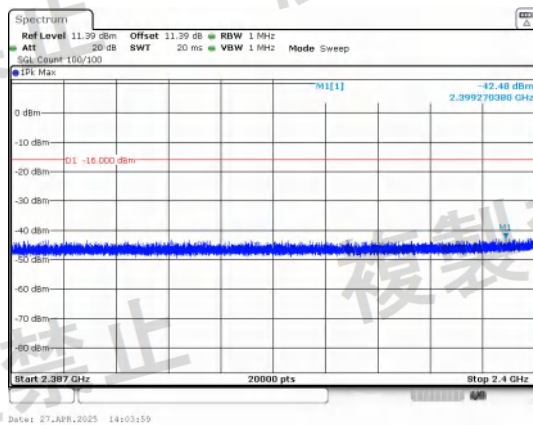
30 to 1000

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 1



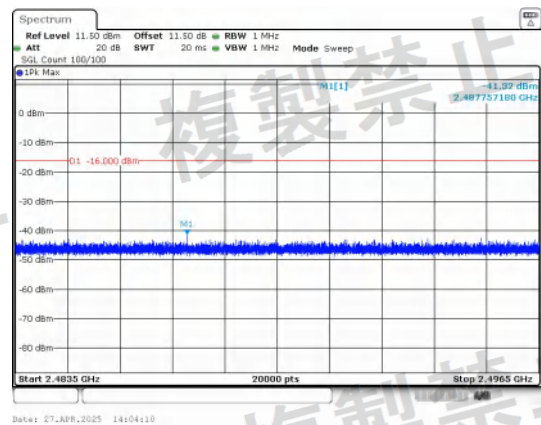
1000 to 2387

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 1



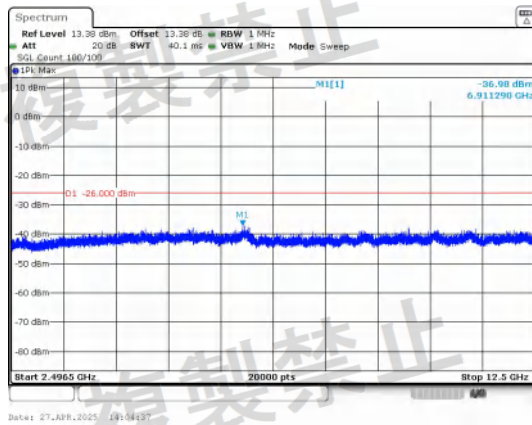
2387 to 2400

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 1



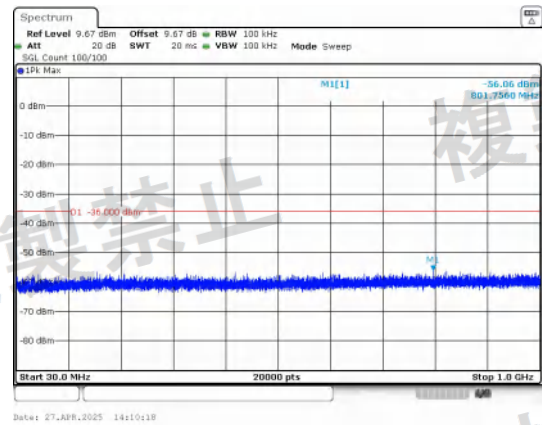
2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 1



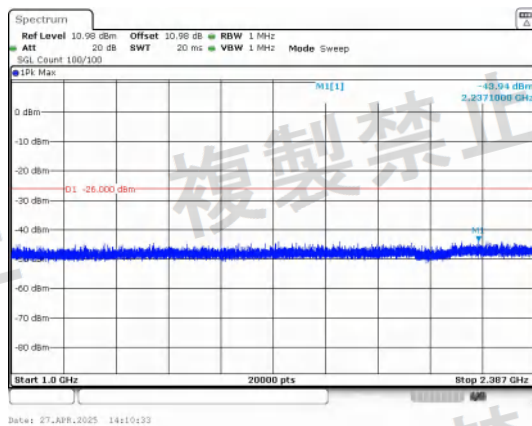
2496.5 to 12500

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 1



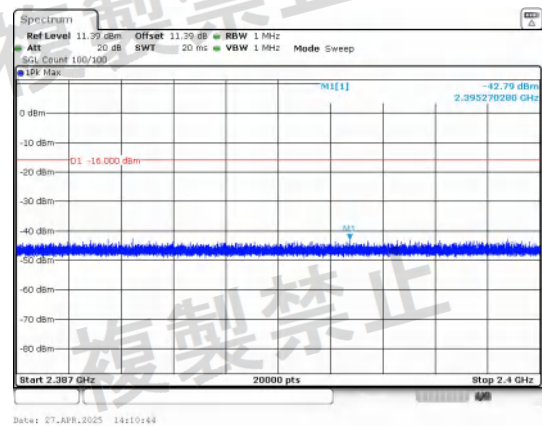
30 to 1000

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 7



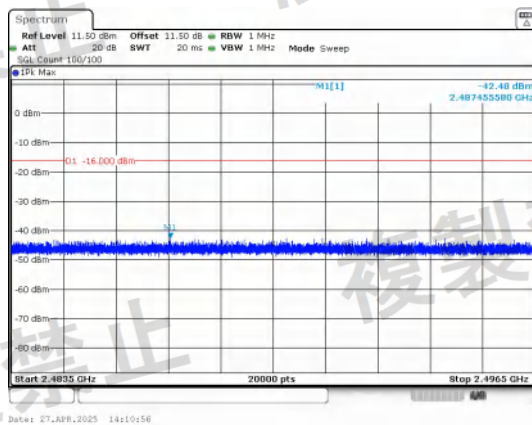
1000 to 2387

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 7



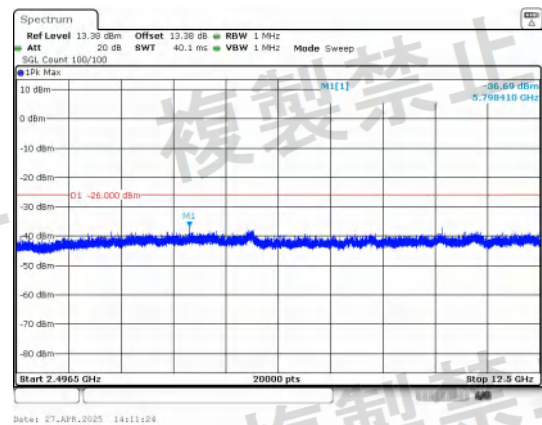
2387 to 2400

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 7



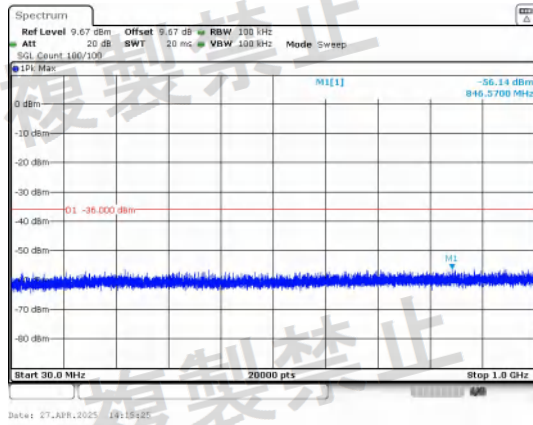
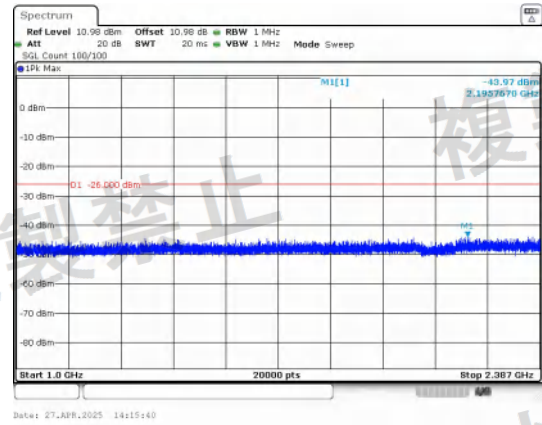
2483.5 to 2496.5

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 7



2496.5 to 12500

NT/NV_Antenna 0 IEEE 802.11n_20_Channel 7

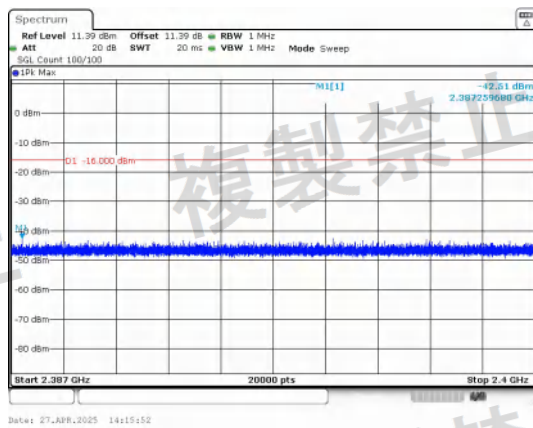
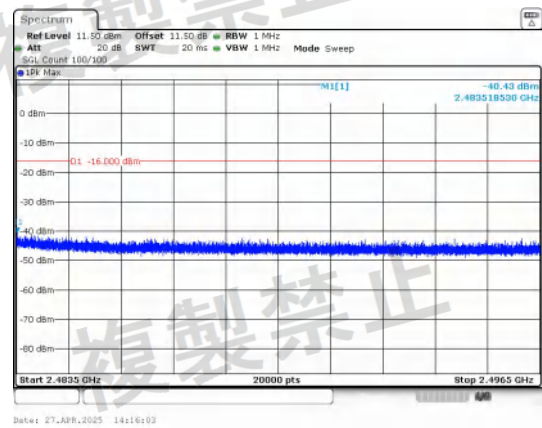


30 to 1000

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 13

1000 to 2387

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 13

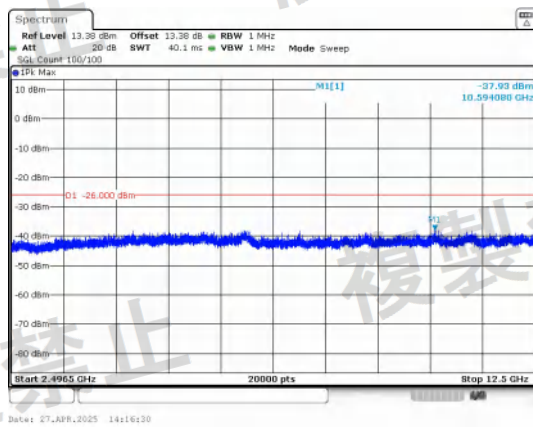


2387 to 2400

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 13

2483.5 to 2496.5

NT/NV_Antenna 0_IEEE 802.11n_20_Channel 13



2496.5 to 12500

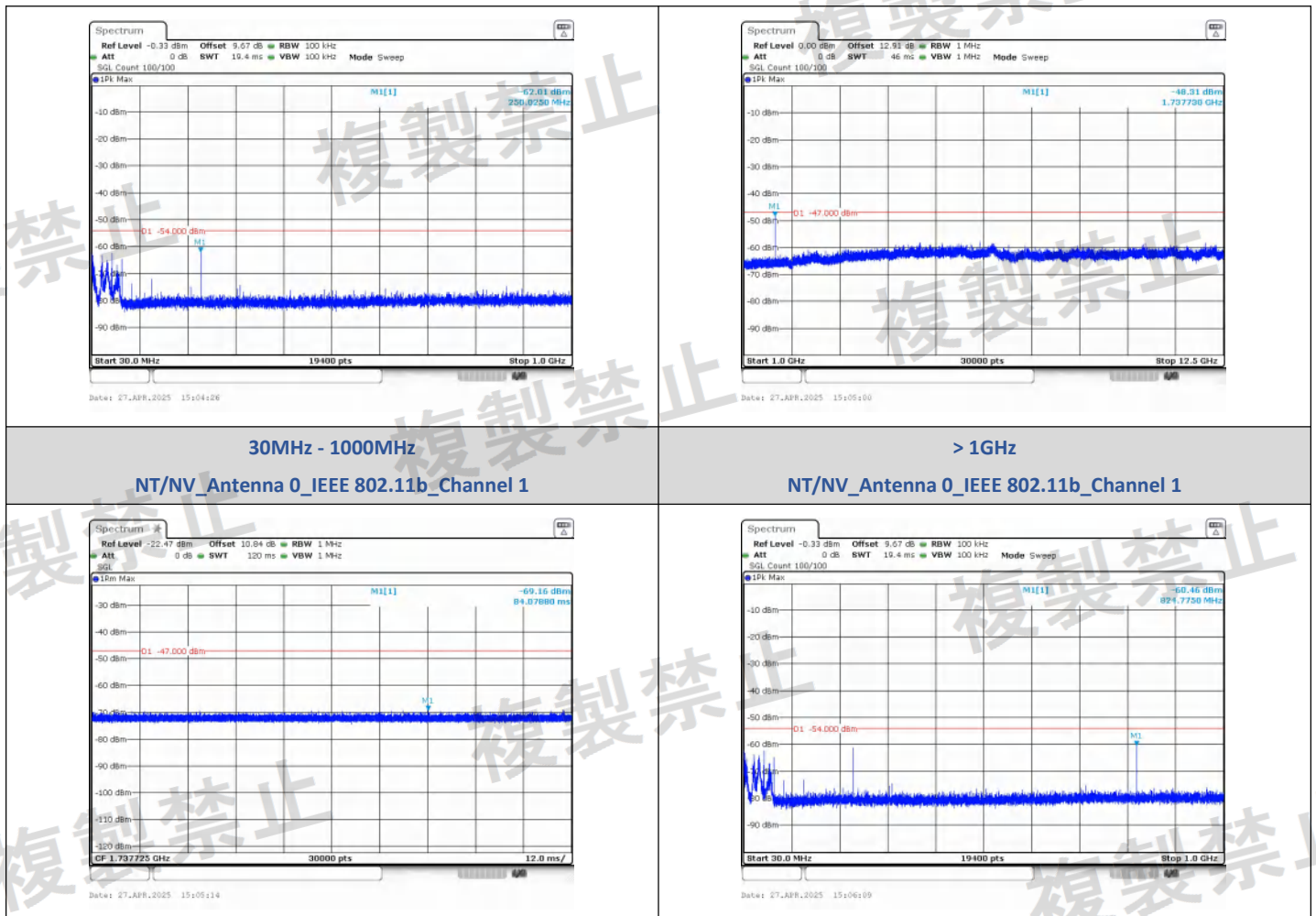
NT/NV_Antenna 0_IEEE 802.11n_20_Channel 13

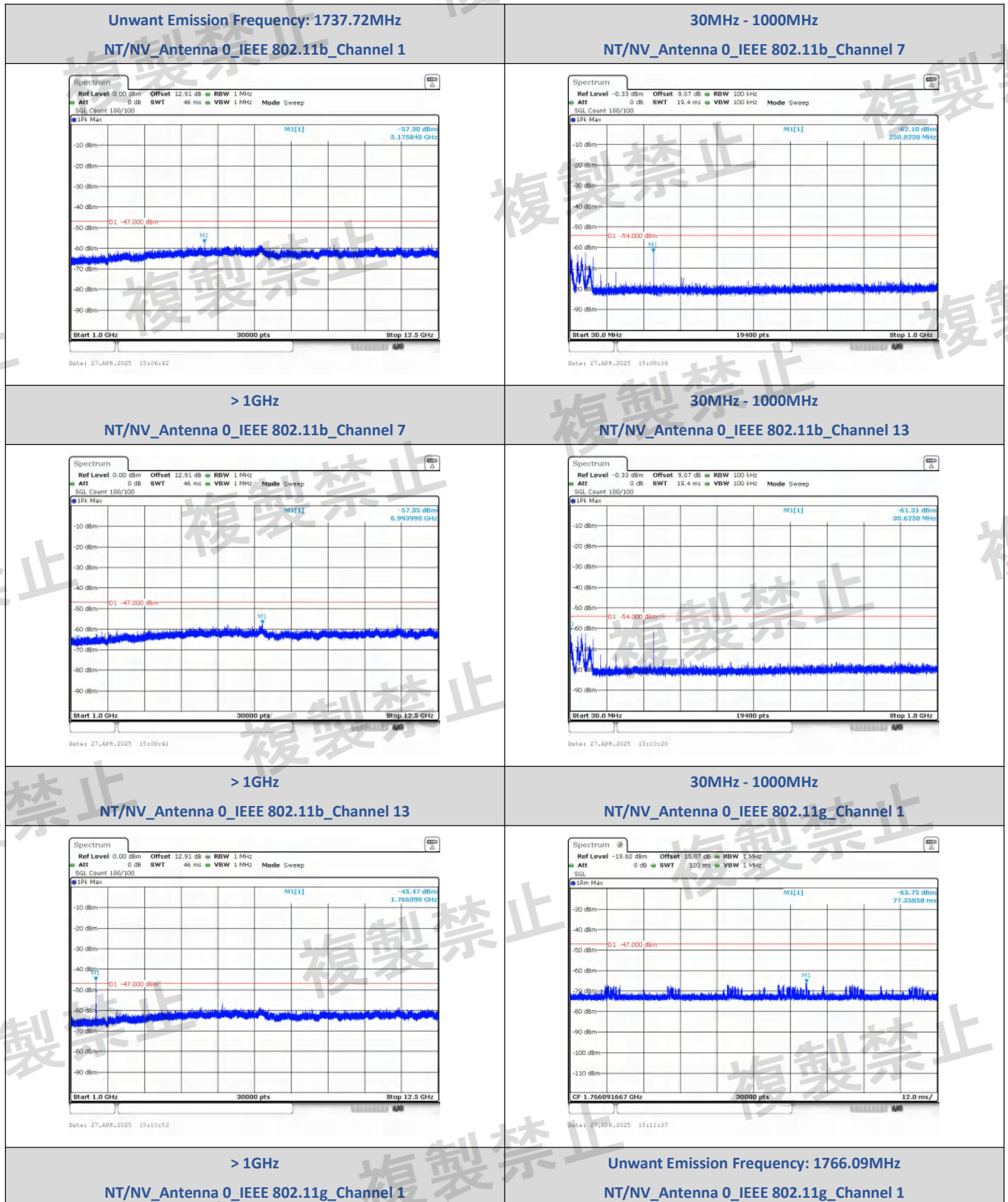
6) Spurious Emissions of Receiver

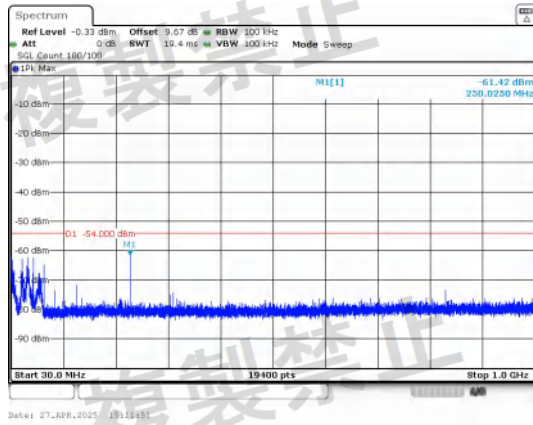
Test Result

Condition	Mode	Channel	Frequency Range (MHz)	Peak (MHz)	Measured Value (dBm)	Limit (dBm)	Result
NT/NV	IEEE 802.11b	1	30-1000	250.025	-62.013	-54	PASS
			1000-12500	1737.725	-69.160	-47	PASS
		7	30-1000	824.775	-60.458	-54	PASS
			1000-12500	5175.842	-57.298	-47	PASS
		13	30-1000	250.025	-62.098	-54	PASS
			1000-12500	6993.992	-57.352	-47	PASS
	IEEE 802.11g	1	30-1000	30.625	-61.306	-54	PASS
			1000-12500	1766.092	-65.750	-47	PASS
		7	30-1000	250.025	-61.417	-54	PASS
			1000-12500	6945.692	-58.485	-47	PASS
		13	30-1000	250.025	-61.668	-54	PASS
			1000-12500	6906.975	-57.878	-47	PASS

Test Graphs

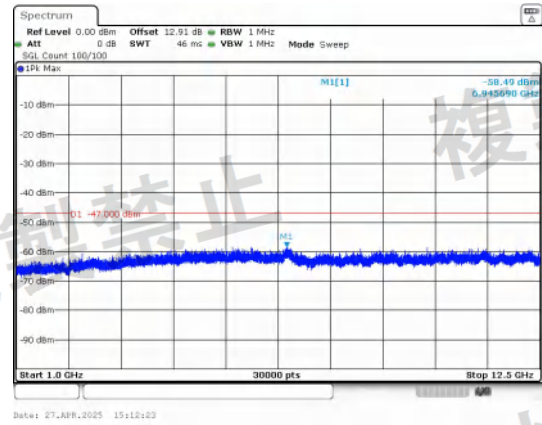






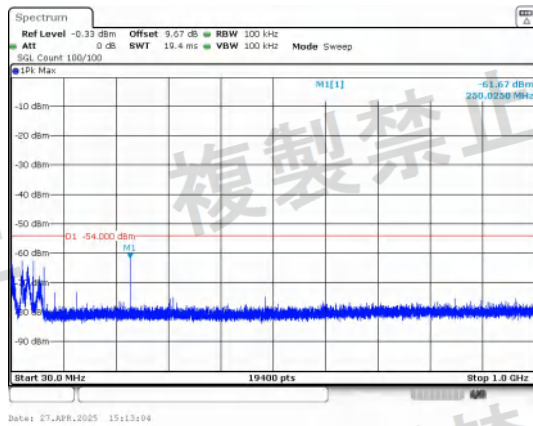
30MHz - 1000MHz

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



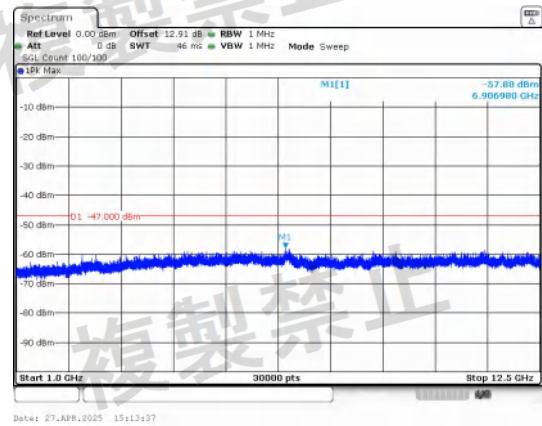
> 1GHz

NT/NV_Antenna 0_IEEE 802.11g_Channel 7



30MHz - 1000MHz

NT/NV_Antenna 0_IEEE 802.11g_Channel 13



> 1GHz

NT/NV_Antenna 0_IEEE 802.11g_Channel 13

-----End of the report-----