

Multi-screen Expanders 3output

User Manual



Model: RDMS-03Y

Before using the product, please read this instruction manual in detail and keep it in a safe place

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I. Product Overview

1.1、 Product Introduction

The Multi-Screen Treasure, also known as a Multi-Screen Extender or Multi-Screen Display Processor, enables multi-screen display from a single host device. It allows one host to display content across multiple monitors, delivering distinct visuals to different screens based on specific requirements. This solution offers a cost-effective approach to achieving multi-screen display effects.

1.2、 Product Features

1. Utilizes a full hardware real-time processing architecture with 4:4:4 lossless design, maximizing video motion performance and image quality for flawless visual effects;
2. Industrial-grade standard design with 16KV ultra-strong anti-static capability, ensuring exceptional system reliability while requiring minimal environmental conditions, suitable for long-term continuous operation;
3. DC 12V power supply with low-power, energy-efficient design. Internal conduction cooling eliminates external heat dissipation requirements, reducing operational costs;
4. Supports both DisplayPort (DP) and HDMI input interfaces for

flexible selection;

5. Supports up to 1-in-4-out configuration, enabling effortless horizontal, vertical, and split-screen tiling. Scalable 1xN, Nx1, MxN tiling and 90° rotated displays via parallel connections without distortion or stretching;

6. Remote control operation supported.

1.3、 Application Scenarios

As a highly cost-effective multi-screen expansion device, Multi-Screen Pro integrates with professional graphics cards like NVIDIA and AMD to achieve 1*N, N*1, M*N configurations, and 90-degree rotated displays without distortion or stretching. It is widely applicable for ultra-high-resolution desktop environments, large-scale video walls, command and control systems, multi-screen video surveillance, engineering display applications, multi-channel projection, virtual reality, immersive theaters, large advertising displays, and LCD/LED video walls.



Horizontal 1×3

Multi-screen Expanders



Vertical 3x1



90-degree rotation



3×5 Tile Layout

II. Product Specifications

Product Specification Name	Specification Parameter
Input Interface Max Pixel Clock Frequency	495 MHz
Output Interface Max Pixel Clock Frequency	165 MHz
Supported Resolution List	5760*1080@60 5760*1200@60 4098*768@60 3840*1024@60 3840*960@60 3840*800@60 3840*720@60 3072*768@60 1920*3240@60 1920*3600@59

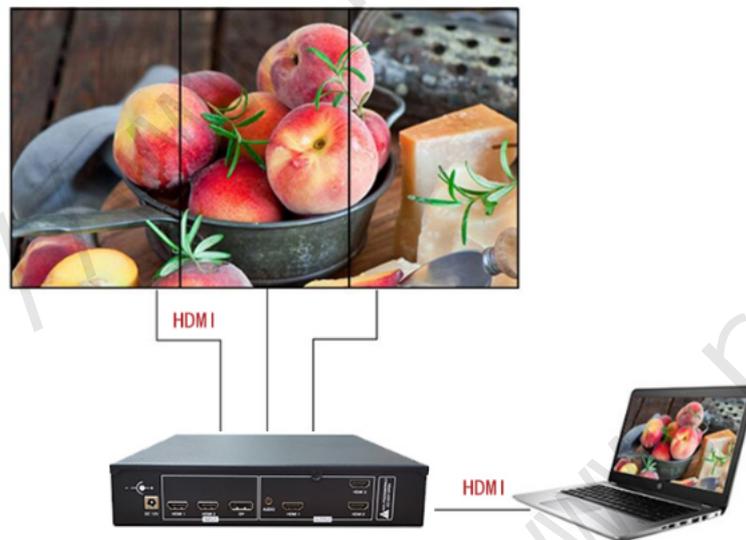
Multi-screen Expanders

	<p>1366*2304@60 1280*3072@60 1280*2880@60 1280*2400@60 1280*2160@60 1024*2304@60 3240*1920@60 and 90-degree rotation</p>
Custom Resolution Support	Supported (√)
Input Interface Type	<p>1 x DisplayPort (DP) interface 1 x HDMI interface 1 x Remote control interface</p>
Output Interface Type	3x HDMI outputs
Chassis Dimensions (L x W x H)	210 mm x 95 mm x 35 mm
Package Dimensions (L x W x H)	273 mm x 238 mm x 79 mm
Net Weight	0.8 kg
Gross Weight	1.0 kg
Power Supply	12V @ 1.5A DC power adapter
Packing List	<p>1 x Power adapter 1 x Certificate of conformity 1 x DP cable 2 x Mounting ears 6 x Mounting screws</p>

III. Operating Instructions

3.1 Device Connection

1. Connect the computer's graphics card output to the Multi-Screen Hub input (select DP or HDMI based on the actual output signal type of the graphics card);
2. Connect the Multi-Screen Hub output (HDMI) to the display device, matching the output port number to the corresponding display;
3. Connect the Multi-Screen Hub to a 12V power supply;
4. After correct connection, the power indicator and signal indicator will display a steady-on state.



HDMI Input Connection Method



DP Input Wiring Connection Method

3.2 Custom Resolution

Step 1: Right-click on the desktop and select "NVIDIA Control Panel" from the pop-up menu.

Step 2: Choose "Change Resolution," select the Multi-Screen Device you wish to modify, then click "Custom."

Step 3: Select "Create Custom Resolution."

Step 4: Refer to the "Custom Resolution" documentation for configuration.

Step 5: After configuration, click "Test" and select "Yes" in the prompt.

Step 6: Click "OK."

Step 7: Once resolution is set, select the newly customized resolution and refresh rate, then click "Apply."

Step 8: After applying, click 'Yes' in the "Apply Changes" prompt.

Step 9: Verify the resolution. Close the "NVIDIA Control Panel," return to the desktop, right-click, select "Screen Resolution" from the context menu, and check the resolution of the Multi-Screen Booster.

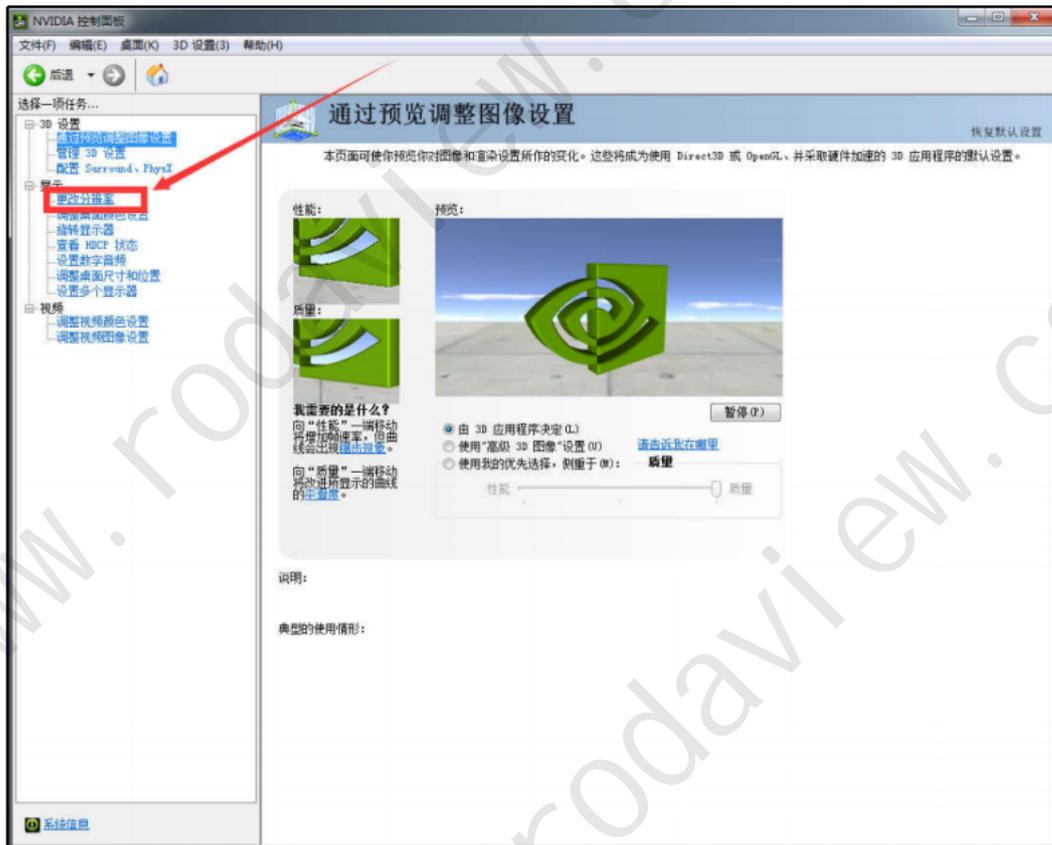
3.3 Screen Merging Operations

3.3.1 GeForce Graphics Card Screen Merging

- 1) First, right-click on the desktop to display the following applications, then click the NVIDIA Control Panel.



- 2) Then click Change Resolution to verify that each Multi-Screen Booster has the same resolution.



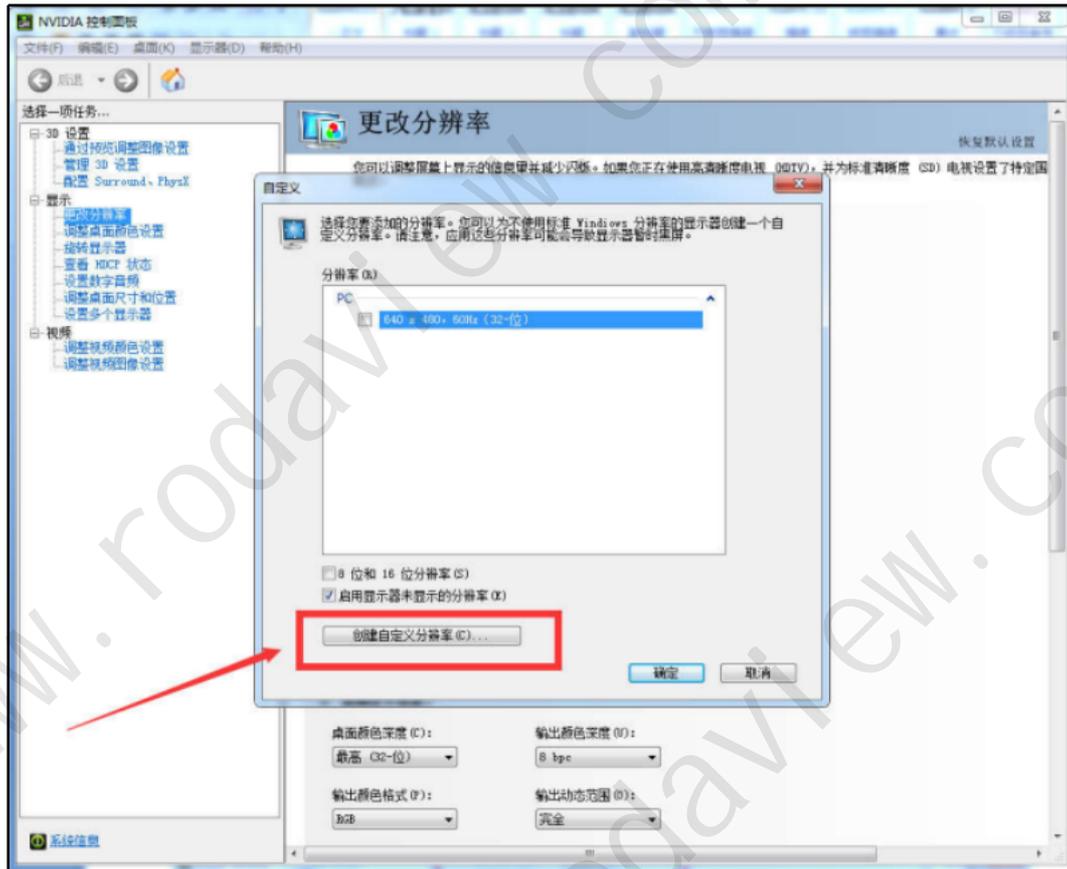
- 3) This page shows how many Multi-Screen Boosters are connected to the graphics card, along with each unit's resolution. Resolutions labeled with "Local" indicate the Multi-Screen Booster's default resolution. (Screen merging requires all Multi-Screen Boosters to have identical resolutions.)



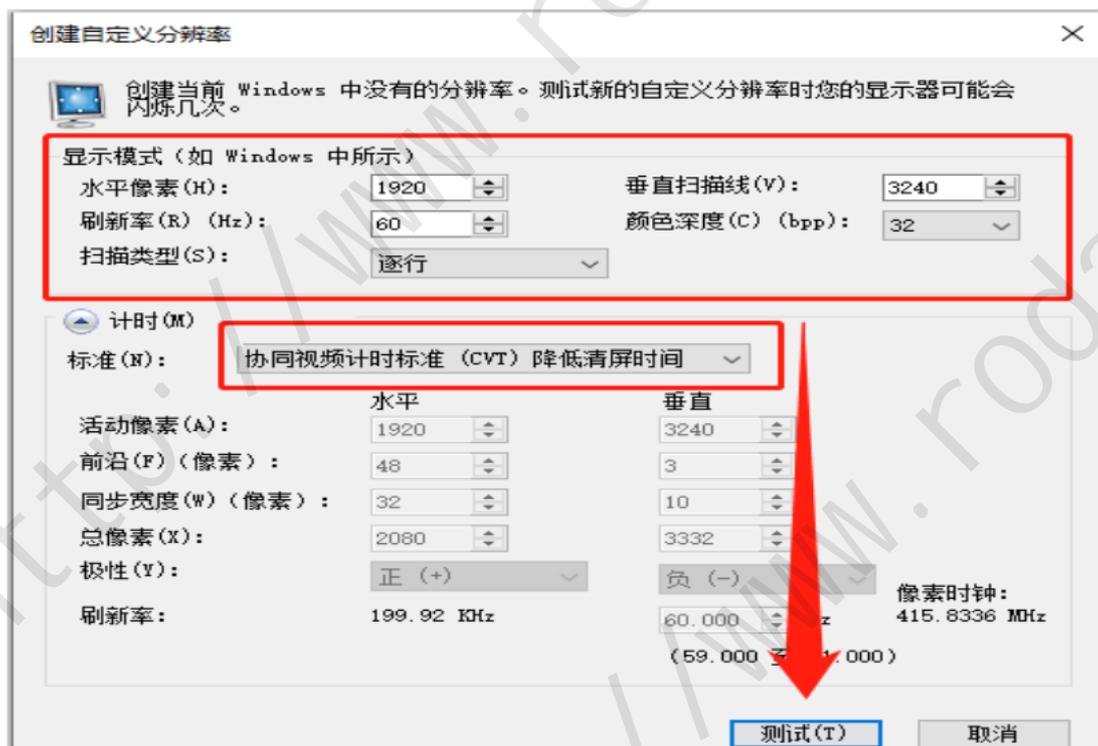
4) Custom Resolution



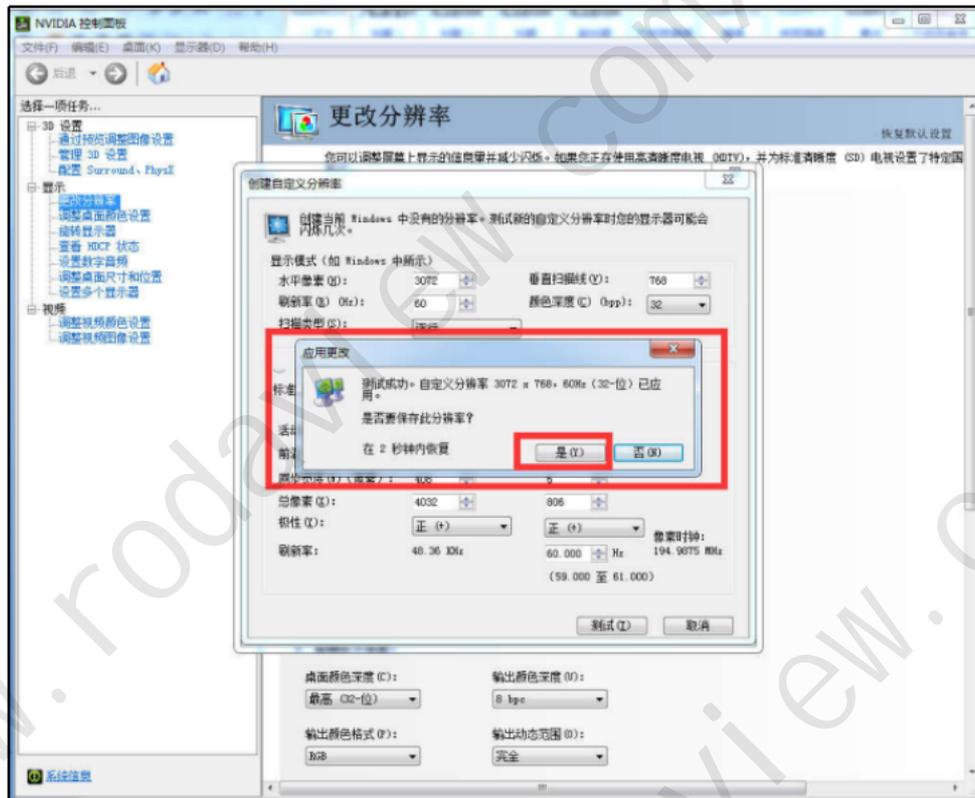
5) Click "Create Resolution"



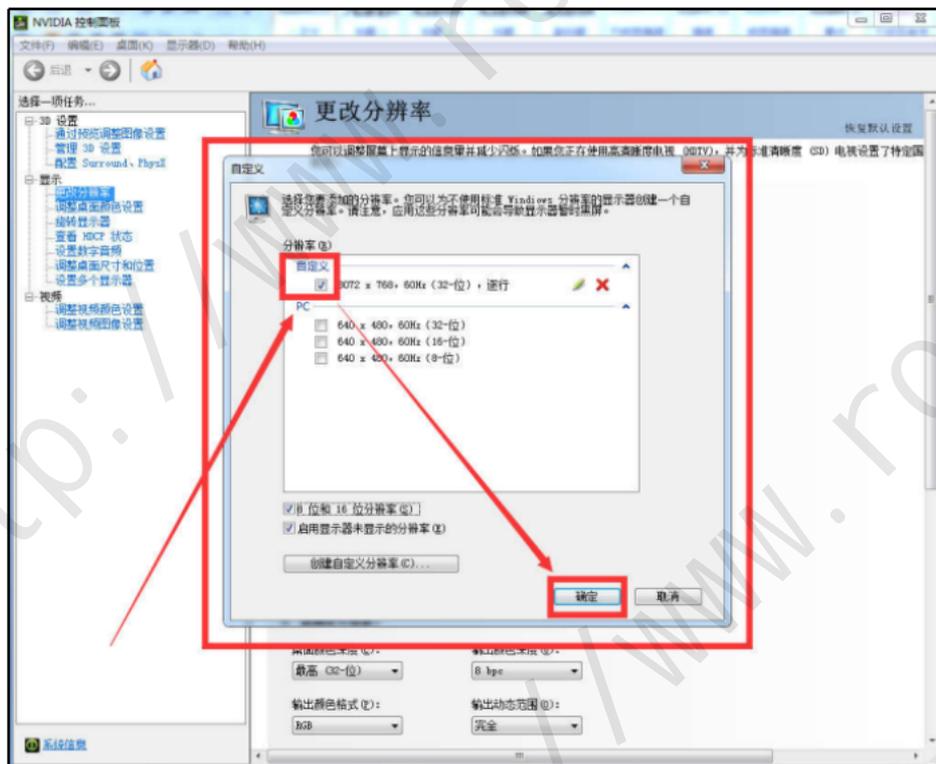
6) Custom Resolution Test



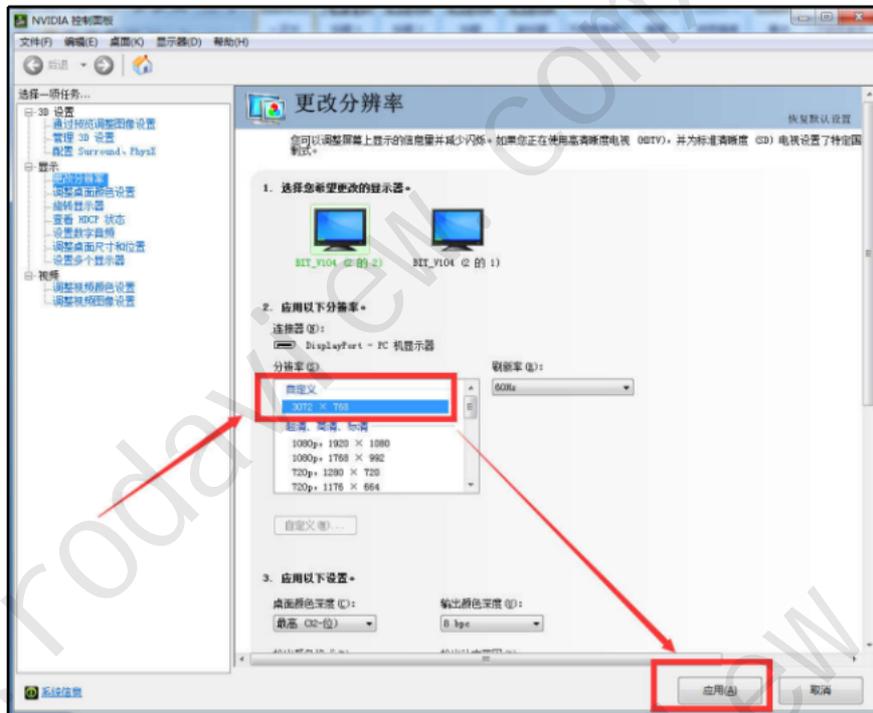
7) Confirm Custom Resolution



8) Add Custom Resolution



9) Click 3072x768, then click Apply. After applying, a prompt will appear asking if you want to save. Click "Yes." Repeat this process for the second display.



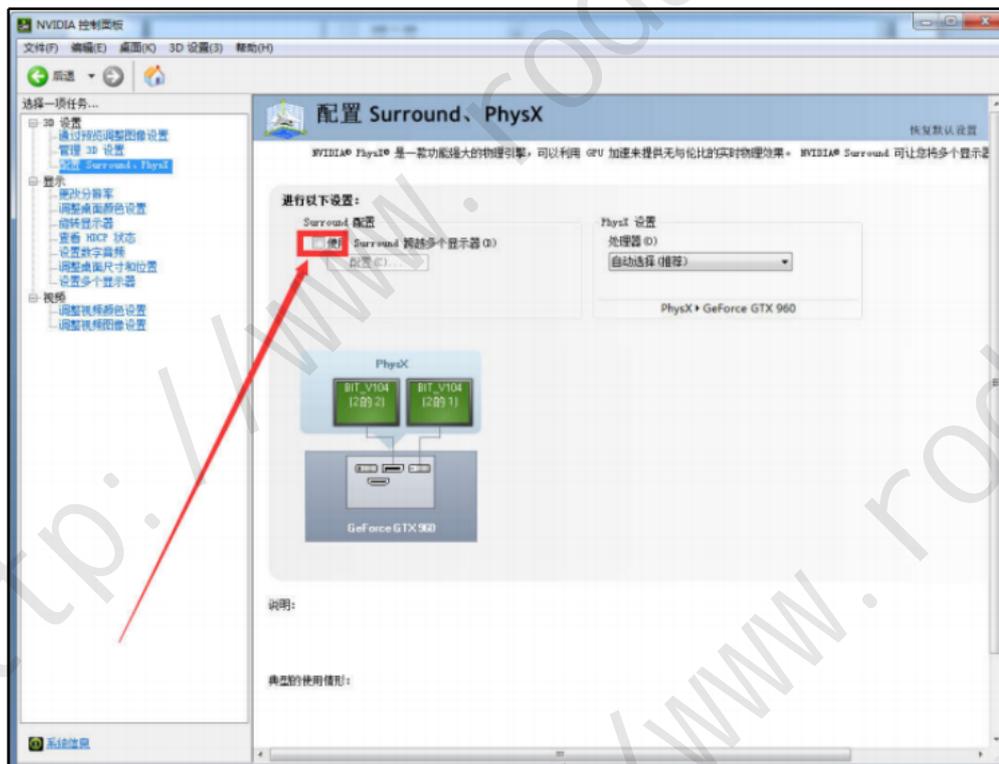
10) After confirming, close the NVIDIA Control Panel and reopen it. Verify that the Multi-Display Adapter's resolution matches the custom resolution you just set. If it does, proceed to the next step. If not, return and repeat the process.



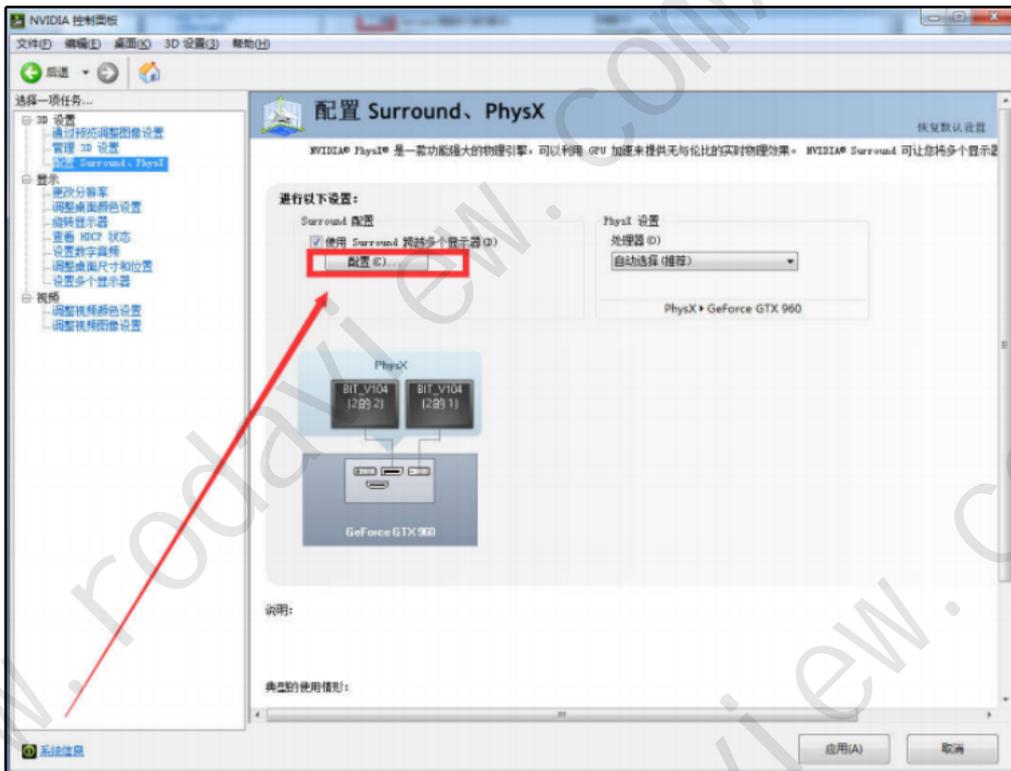
11) After verifying normal display, proceed with screen fusion:



12) Check the box



13) After checking, click Configure



14) Verify configuration and resolution are correct. Click Enable, then close NVIDIA

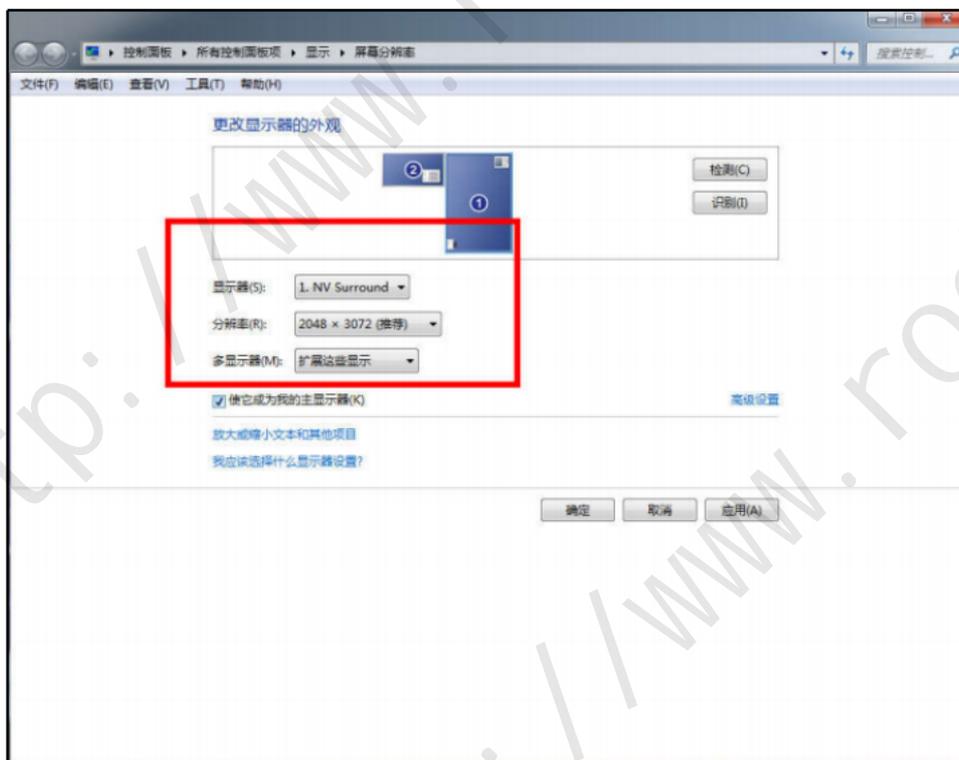
Control Panel



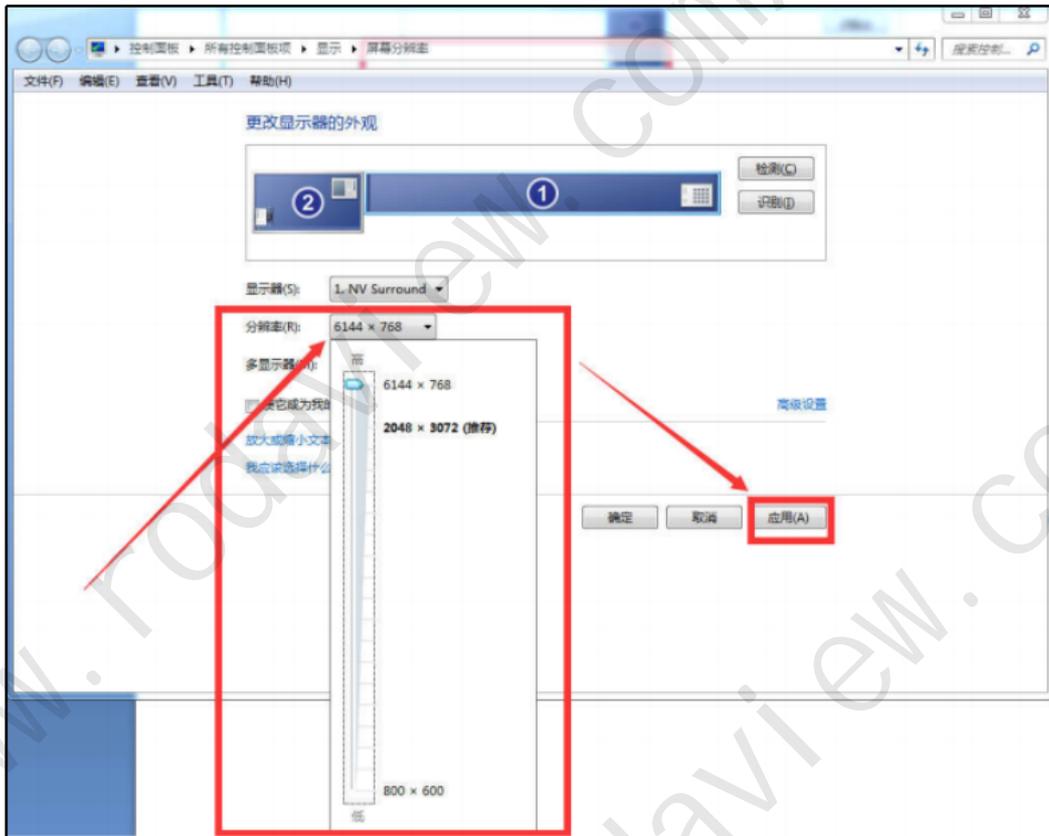
15) Right-click desktop



16) Check if screen fusion succeeded and resolution is correct. (See image below confirming successful fusion)



17) If the resolution is incorrect, adjust it here and apply the changes.



3.3.2 P2000 Graphics Card Display Merge

The prerequisite for display merge is that each Multi-Screen Box must have the same resolution. Refer to “Custom Resolution” to set identical resolutions.

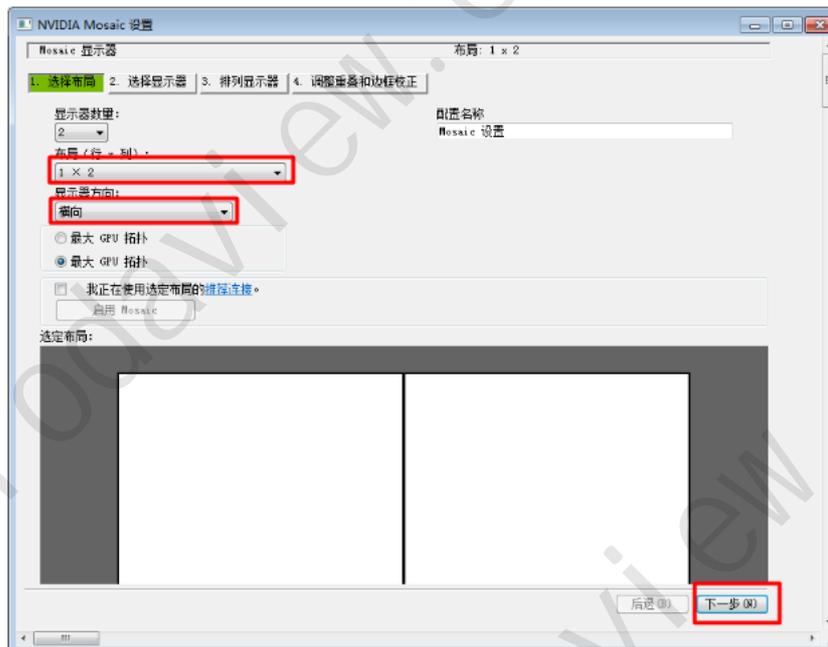
Step 1: Launch the Control Panel. Right-click the desktop and select NVIDIA Control Panel.



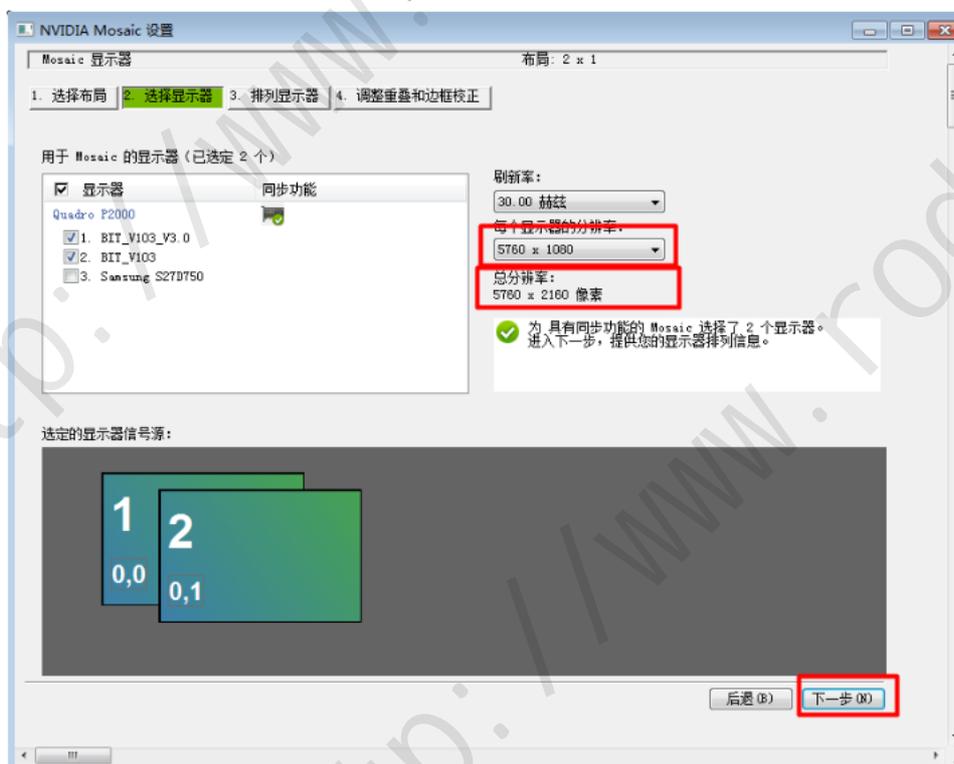
Step 2: Click “Set Mosaic Mode,” then click “New Configuration.”



Step 3: In the layout options, you can configure the screen fusion direction and the number of screens to fuse. After setting these options, click Next.

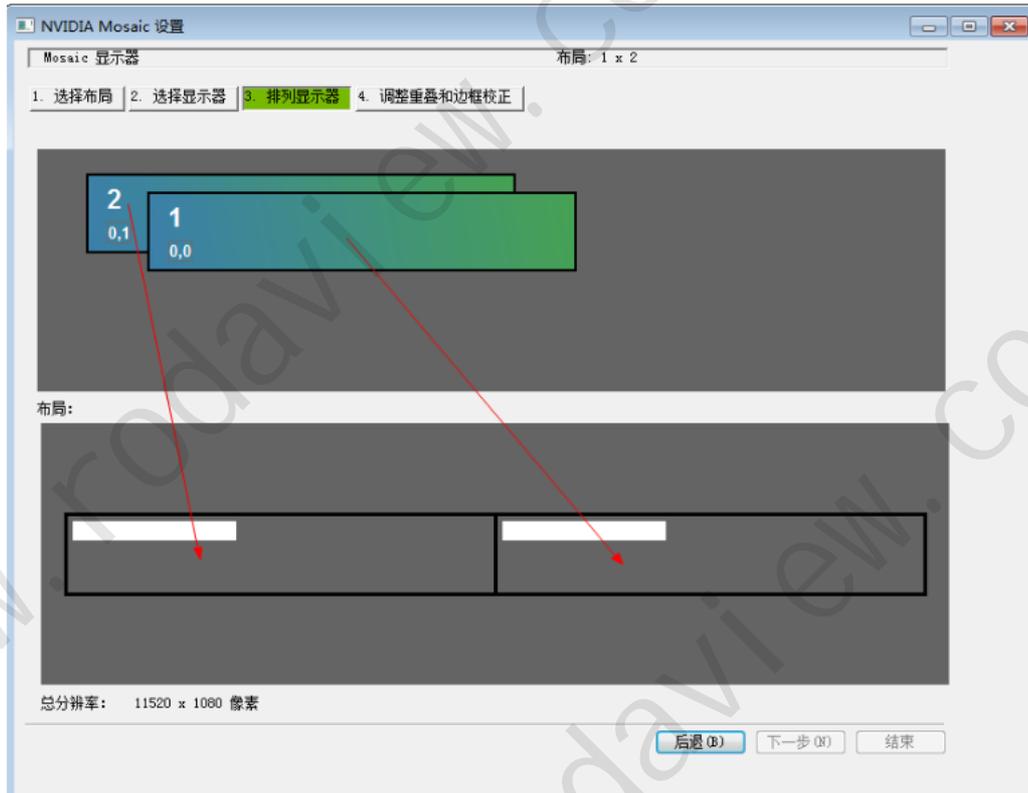


Step 4: In the monitor options, ensure each monitor's resolution matches your custom settings. If they differ, adjust them to be consistent, and verify the total resolution is correct. For example, if you selected a layout (rows x columns) of 1x2 in the previous step and set a custom resolution of 5760x1080, the total resolution should be 5760x2160. Once confirmed, click Next.



Step 5: Arrange the displays as shown below. Click and hold Figure 1, then drag

it to the location indicated by the arrow. Repeat the same process for Figure 2. Once arranged, click Next.



Step 6: Click Apply.



Step 7: Adjust the overlap and border alignment, then click Finish.



Step 8: After completing the first seven steps, verify that the display has been successfully merged. You may now close the NVIDIA Control Panel.



3.4 Multi-Screen Extender Usage Guide

1. Connect the output port to the display via an HD cable. Ensure the output port number corresponds exactly to the display's serial number.
2. Control the Multi-Screen Extender using the remote control. The remote's menu interface is displayed only on Output Port 1. Remote functions include switching signal channels, configuring display modes, changing language settings, and performing factory resets. The menu interface is shown below.



3. Switch input channels. Press the remote's Menu button, then press the Down button to select "Input." Use the Left/Right buttons to change the Multi-Screen Box's input channel. After setting the parameters, press the Exit button to exit; settings will be saved automatically.
4. Set the Multi-Screen Box's splicing mode. Press the remote's Menu button, then press the Down button to select "Splicing Mode." Use the Left/Right buttons to change the splicing mode. Splitting modes include: 1x1; 1x2; 2x1; 1x3; 3x1; 1x4; 2x2; 4x1.
5. Set the Multi-Screen Box language. Press the remote's Menu button, then press the Down button to select "Language." Use the Left/Right buttons to change the menu language. Available languages include Chinese and English.
6. Set menu transparency. Press the remote's Menu button, press the Down button, select "Transparency," then press Left/Right to adjust transparency.

7. Set display. Modify the output port resolution. Press the remote's Menu button, press the Down button, select "Display," then press Left/Right to modify the output port resolution. Supported resolutions: 1920*1080;1920*1200; 1280*800; 1280*720; 1024*768; 1366*768; 1280*1024; 1536*768; 1920*1024; 1920*800; 1920*720;1280*1200; 1280*1080.
8. Reset. Restore factory settings.
9. Check the software version information of the Multi-Screen Hub. Open the menu and view the bottom right corner of the menu. As shown in the image above. The software version information is V1.0.3.

IV. Frequently Asked Questions

4.1 Multi-Screen Box Device Issues

4.1.1 Red Light Issues on Multi-Screen Box

1. Check the power cable; the supplied 12V power cable must be used for power supply.
2. Verify the stability of the Multi-Screen Box's power supply (e.g., voltage stability).
3. Replace with another 12V power adapter to test if the issue lies with the adapter.
4. Device indicator light failure or other hardware malfunction.
5. The Multi-Screen Hub input cable must be the supplied cable.

4.1.2 Multi-Screen Hub Green Light Issues

1. Input signal cable failure or other issues (e.g., damaged EDID chip).
2. Input signal cable failure or other issues (e.g., computer graphics card problems, device resolution issues, secondary device problems, or signal cable defects).

3. When input is present (input indicator steady) but no output (output indicator blinking/off), check if the computer graphics card is outputting. Connect the graphics card output to a functional monitor to verify output. If multiple outputs are functional, swap the non-functional port with a working one. If the non-functional port then outputs normally, the issue likely lies with the output cable; replace it.

4.2 Computer Graphics Card Issues

1. Verify if the graphics card requires auxiliary power. Multi-output cards with multiple ports typically need additional power supply. Check if there is a port switch control and refer to the card's user manual.
2. Confirm the graphics card's output port supports 300M+ bandwidth.
3. Avoid using signal converters to HDMI. Connect directly via the graphics card's HDMI port to the Multi-Screen Hub.
4. If the graphics card is connected to the Multi-Screen Box, check the graphics card control panel to see if the Multi-Screen Box device name is displayed.
5. It is best to install the latest graphics card drivers. Download the latest drivers from the official website and uninstall any older drivers before installing the new ones.
6. NVIDIA Graphics Card Driver Download Site: <http://www.nvidia.cn>
7. ATI graphics driver download site: www.and.com

4.3 Display Device Issues

1. Verify if the display device supports the output resolution. Test this resolution by connecting the graphics card directly to the device.
2. Ensure stable power supply to the display device. Enable signal reception functions (power on, signal search, etc.).
3. Select an appropriate receiver based on the transmission distance between the Multi-Screen Hub and the display device.

4. If using a short cable to connect the Multi-Screen Hub to the display device and there is still no output, the display device may require a non-standard resolution. Refer to the “Custom Resolution” procedure.

5. If the connection distance exceeds 1.5 meters, it is recommended to use a network transmission adapter.

4.4. Troubleshooting

Prerequisite Condition	Issue Phenomenon	Solution
Correct output resolution	Blue-tinted display	Set the display mode to "Tile" in the computer's display properties (desktop properties).
Integrated graphics card	No video output	Switch to a dedicated graphics card, or contact technical support.

V. Product Photos and Dimensions

