Multi-screen Expanders 4output

User Manual

Model: RDMS-204A

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

catalogue

I. Product Overview

1.1、 Product Introduction

①Multi-Screen Treasure is an industrial-grade high-performance product specifically designed for small-scale LCD liquid crystal splicing screens, multi-channel projection fusion, and other application scenarios. It adopts HDMI/DP input interfaces and HDMI output interfaces.

②Simple installation, easy debugging, and plug-and-play operation.

③ Supports various splicing modes: horizontal screen splicing / vertical screen splicing.

④Ultra-high resolution, supporting a maximum of four HDMI outputs at 1920x1200 resolution each, and one HDMI/DP input. The maximum input resolution is 3840x2400@60Hz,(downward compatible with lower resolutions). The factory default resolution is 3840x2160@60Hz.

⑤Utilizes a 28nm process high-end programmable FPGA chip and a full hardware real-time processing architecture, ensuring ultra-fast processing speed without any delay.

⑥ Industrial-grade design, featuring thickened 8-layer PCB board and 16KV ultra-strong anti-static capability, providing superior product stability.

⑦ Low power consumption and energy-saving design. Internal conduction heat dissipation is employed, requiring no external cooling measures, ensuring high reliability.

⑧ No stretching or distortion. No compression processing of the input source is required, resulting in clear images.

1.2 Application Scenarios

Ultra-high resolution desktop applications, LCD multi-screen splicing, multi-channel projection, advertising walls, video surveillance, and other engineering display applications.

II. Product Specifications

Support resolution	Horizontally tiled point-to-point splicing
1x2 Max. Supported Resolution	3840×1200@60Hz
1x3 Max. Supported Resolution	5760×1200@60Hz
1x4 Max. Supported Resolution	7680×1200@60Hz
2x2 Max. Supported Resolution	3840×2400@60Hz
Support resolution	Vertical screen point-to-point splicing
2x1 Max. Supported Resolution	1920×2400@60Hz
3x1 Max. Supported Resolution	1920×3600@60Hz
4x1 Max. Supported Resolution	1920×4800@60Hz
Product Default Resolution	3840×2160@60Hz
Input interface type	1 × DP interface (multiplexed with HDMI)
	1 × HDMI interface (multiplexed with DP)
Output interface type	4 × HDMI outputs
	1 × 3.5mm audio output (Optional)
Chassis Dimensions	204mm × 130mm × 28mm
Package Dimensions	242mm × 242mm × 70mm
Net Weight	0.7kg

Gross Weight	1.0kg
Power Supply	DC-12V 1.5A
Package List	1 × Power Adapter, 1 × Certificate of Conformity, 1 × DP Cable, 2 × Mounting Ears, 6 × Mounting Screws

III. Operating Instructions
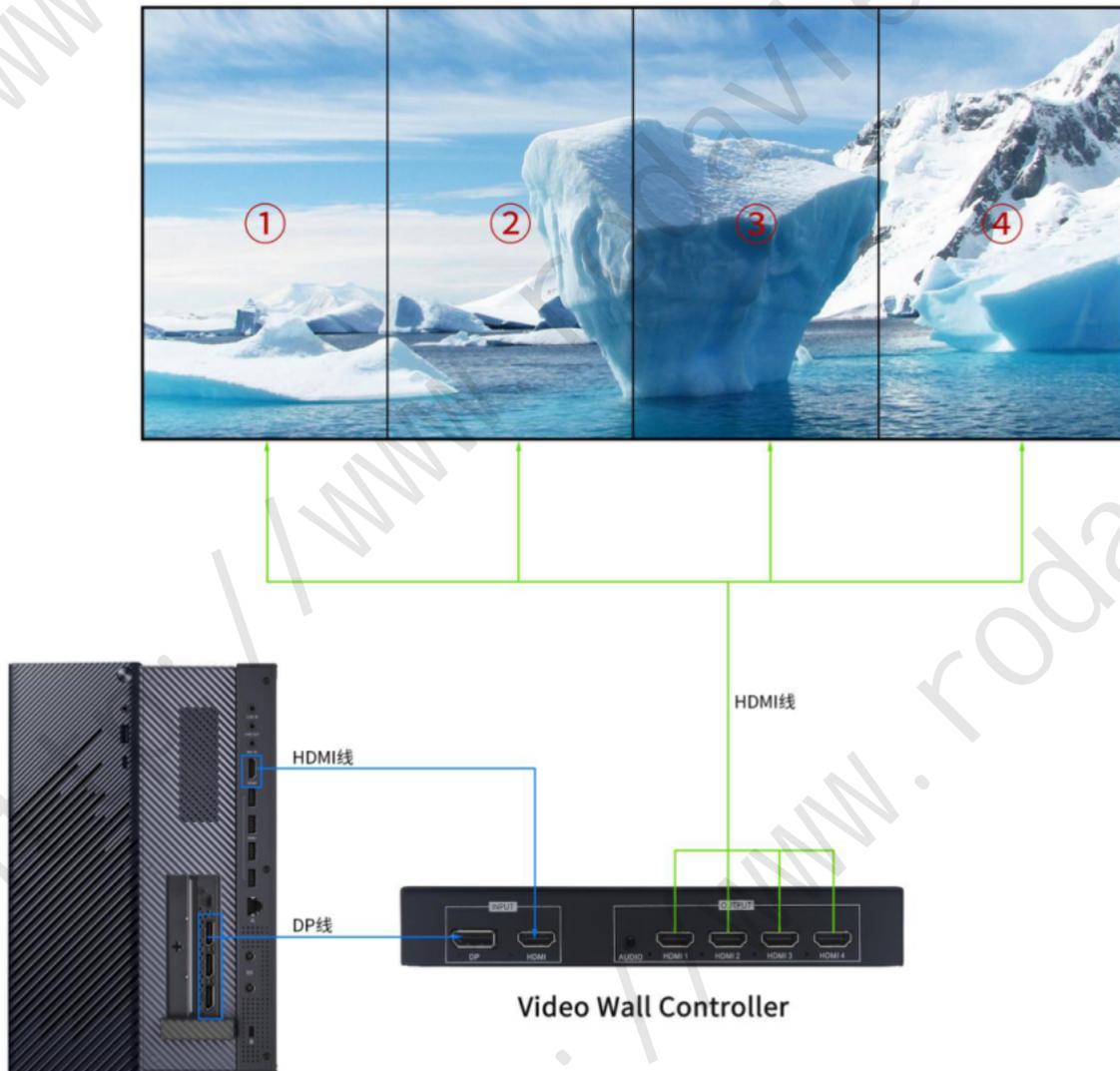
3.1 Device Panel Description
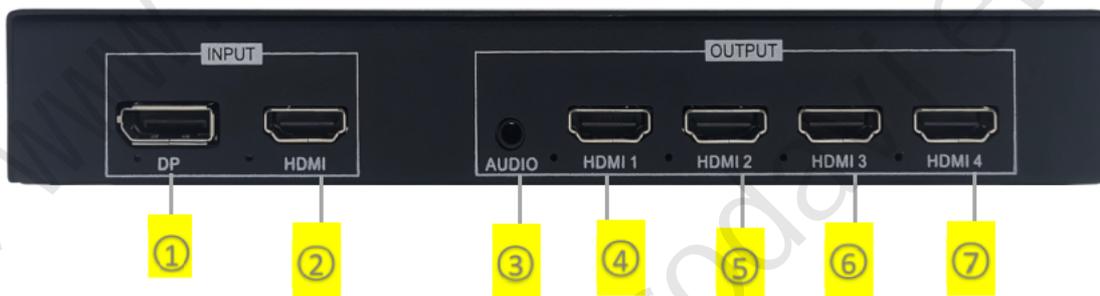
Rear Panel Description:

① **DP**: Input Interface (DP)

② **HDMI**: Input Interface (HDMI)

③ **AUDIO**: 3.5mm Audio Output
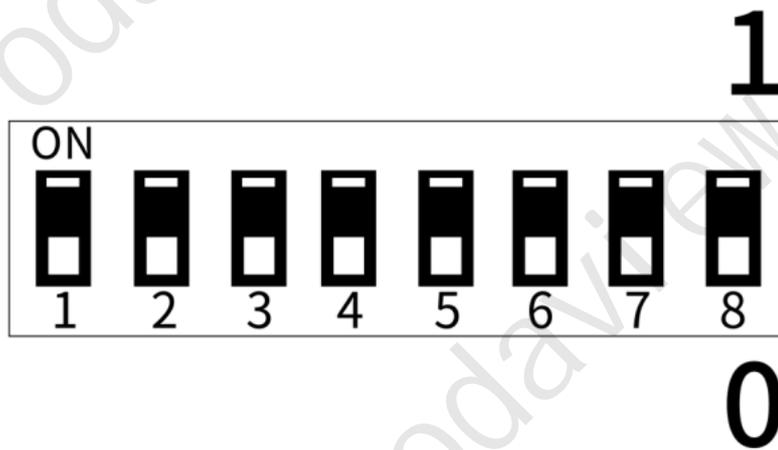
④-⑦ **Signal Output**: HDMI 1, HDMI 2, HDMI 3, HDMI 4

Front Panel Description:

⑧ **DC 12V**: DC Power Jack (DC12V Input)

⑨ **POWER**: Power Indicator (Blue LED)

3.2 Device Connection Instructions

Video Wall Controller

3.3 Bottom DIP Switch

3.4 DIP Switch Configuration

Mode selection and input resolution									
pattern	Recommended EDID resolution		dial-up						
	1920×1080 Mode of output	1920×1200 Mode of output	D1	D2	D3	D4	D5	D6	Output resolution
1×1	1920×1080	1920×1200	1	1	1	0-HDMI 1-DP	0	0	1920×1080@60Hz
2×1	1920×2160	1920×2400	1	0	0		0	1	1920×1200@60Hz
3×1	1920×3240	1920×3600	1	0	1		1	0	1280×720@60Hz
4×1	1920×4320	1920×4800	1	1	0		1	1	1024×768@60Hz
1×2	3840×1080	3840×1200	0	0	1				

2×2	3840×2160	3840×2400	0	0	0		D7	fixed EDID		D8
1×3	5760×1080	5760×1200	0	1	0		0	voluntarily EDID		
1×4	7680×1080	7680×1200	0	1	1		1	fixed EDID UHD-4K60		obligate

Mode Description:

"Fixed DIP Switch Layout Mode" :

The image is displayed strictly according to the input resolution and the layout mode set via the DIP switch table.   Note: Manually altering the input resolution may cause screen distortion or loss of display.
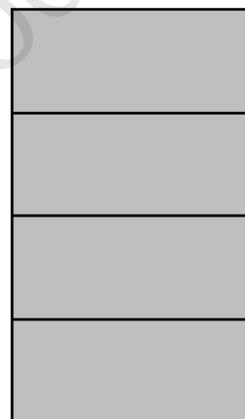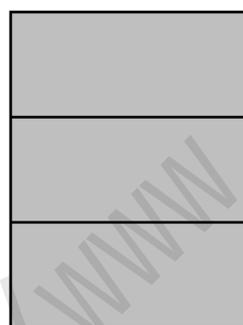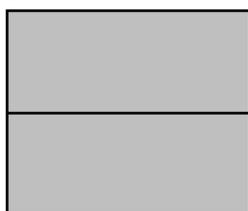
"Input Detection Adaptive Layout Mode" :

The device prioritizes using the resolution and layout configured via the DIP switch (as in Fixed Mode). If the input resolution is manually changed, the device detects whether it matches any built-in layout resolution. If matched, it automatically switches to the corresponding layout for image display.
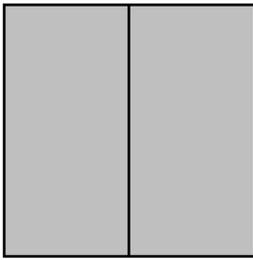
3.5 Supported Splicing Layouts

Supports horizontal/vertical 1 × N, M × 1, and M × N free combinations with proportional pixel-to-pixel ultra-high-definition splicing.

Portrait mode:
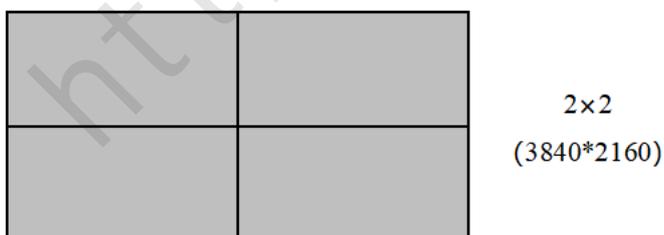
1×2
(3840*1080)

1×3
(5760*1080)

1×4
(7680*1080)
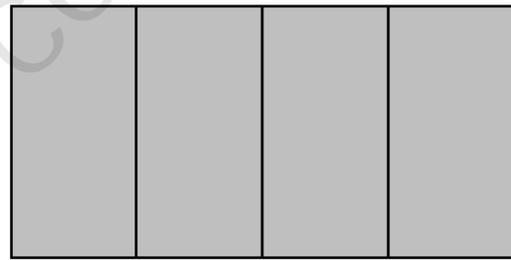
2×1
(1920*2160)

3×1
(1920*3240)
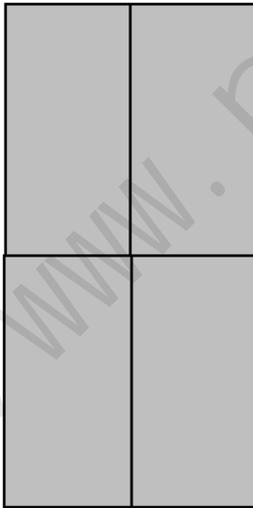
4×1
(1920*4320)
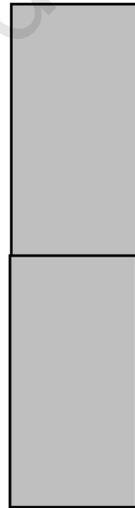
2×2
(3840*2160)

Portrait mode:

1×2
(2160*1920)

1×3
(3240*1920)

1×4
(4320*1920)
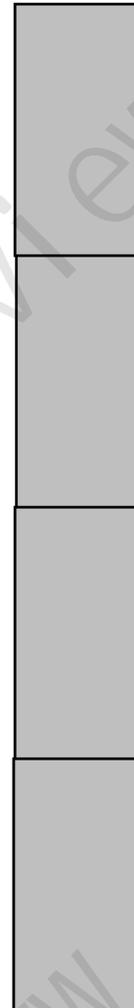
2×2
(2160*3840)

2×1
(1080*3840)

3×1
(1080*5760)

4×1
(1080*7680)

3.6 Graphics Card Custom Resolution
The following setup uses an NVIDIA graphics card as an example:

1. Right-click the desktop, then click **NVIDIA Control Panel**.
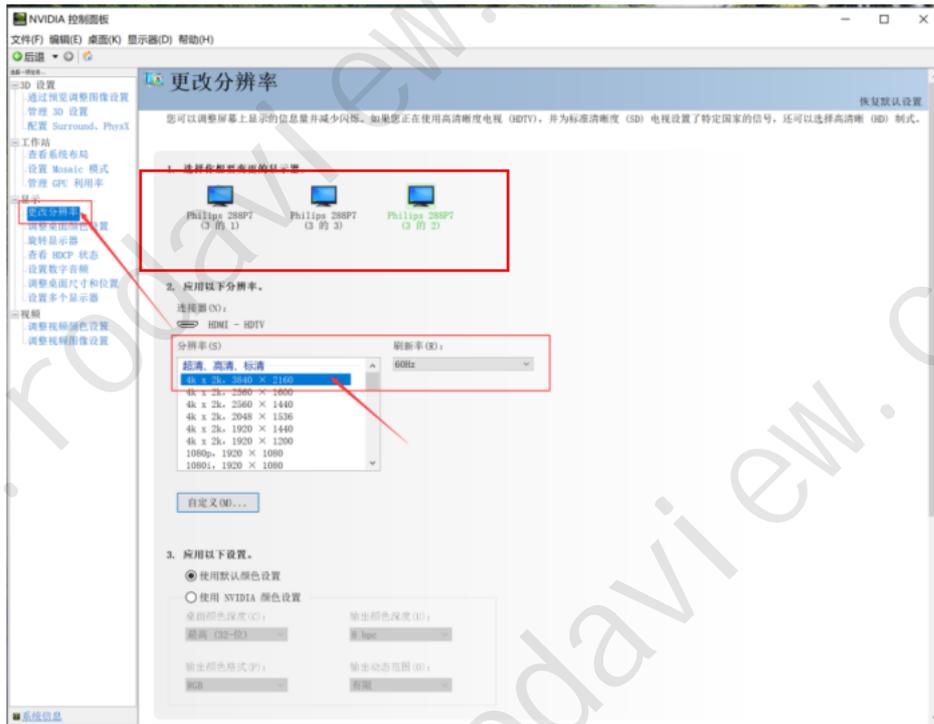

2. Click **Change resolution** to verify if all connected devices share the same resolution.

3. This page displays all connected devices and their resolutions. "Native" indicates the device's default resolution.
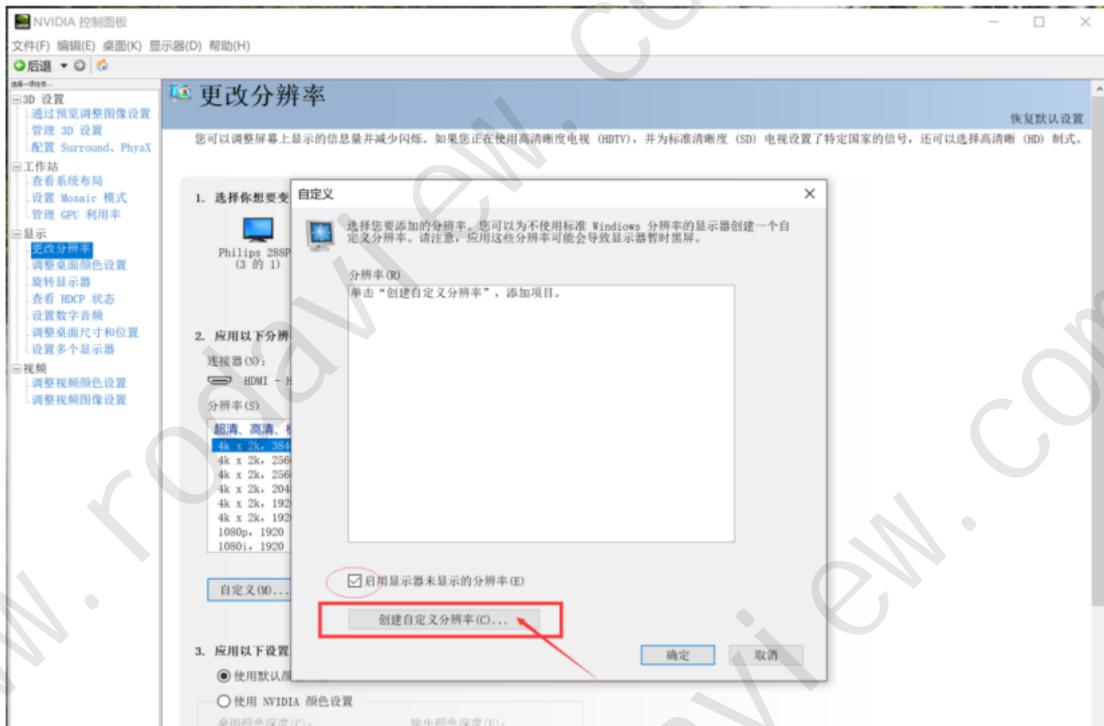
   (Note: Seamless blending requires identical resolutions across all devices.)
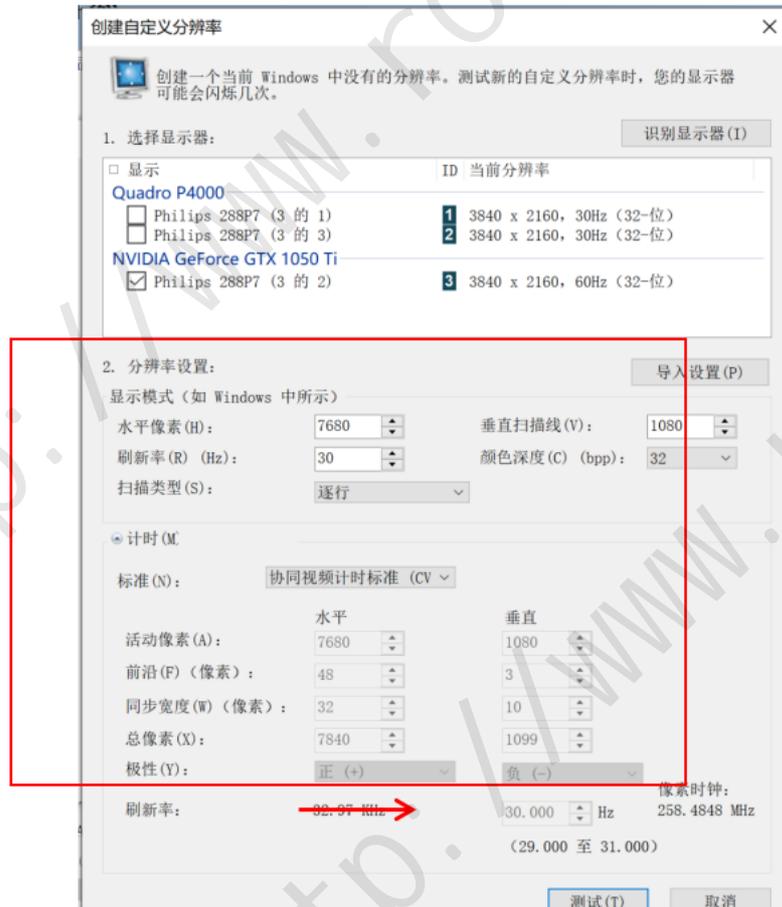

4. Select **Customize...** under "Resolution."

5. Click Create Custom Resolution.
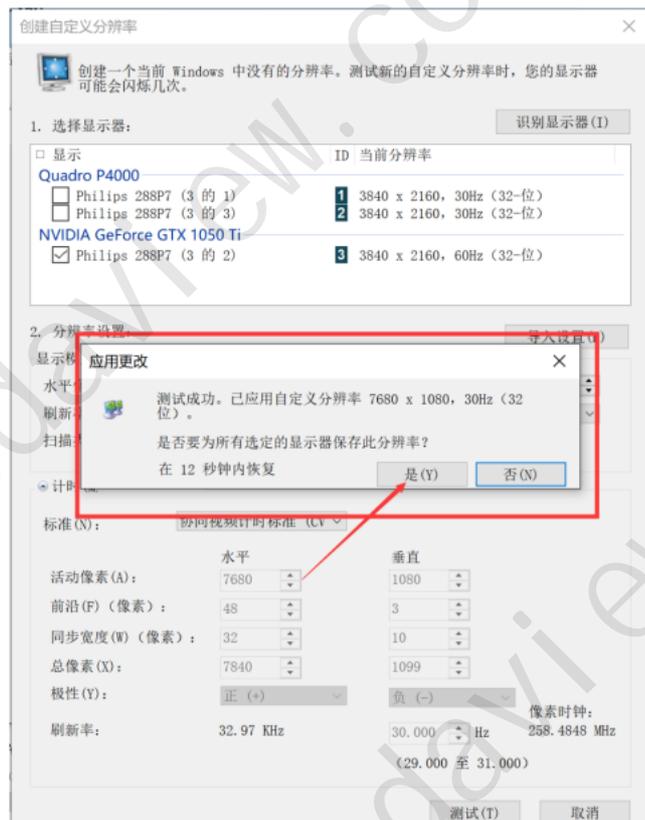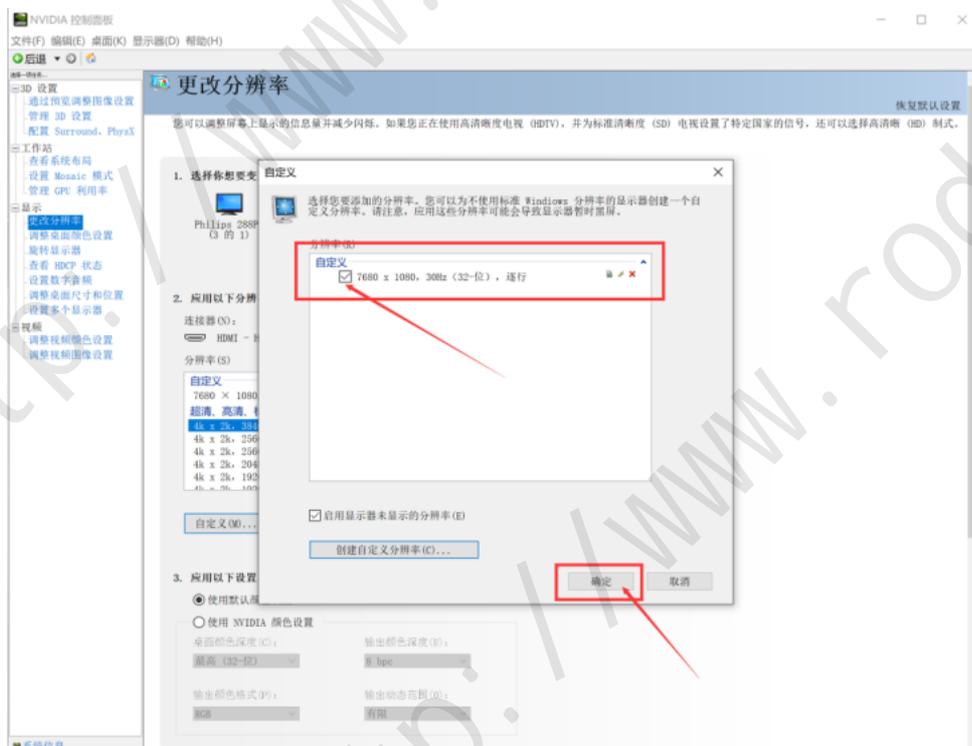

6. Test the custom resolution settings.

7. Confirm the custom resolution parameters.

8. Click add to save the custom resolution.

9. Apply the custom resolution: Select   7680×1080, click Apply, then confirm "Yes" in the prompt.
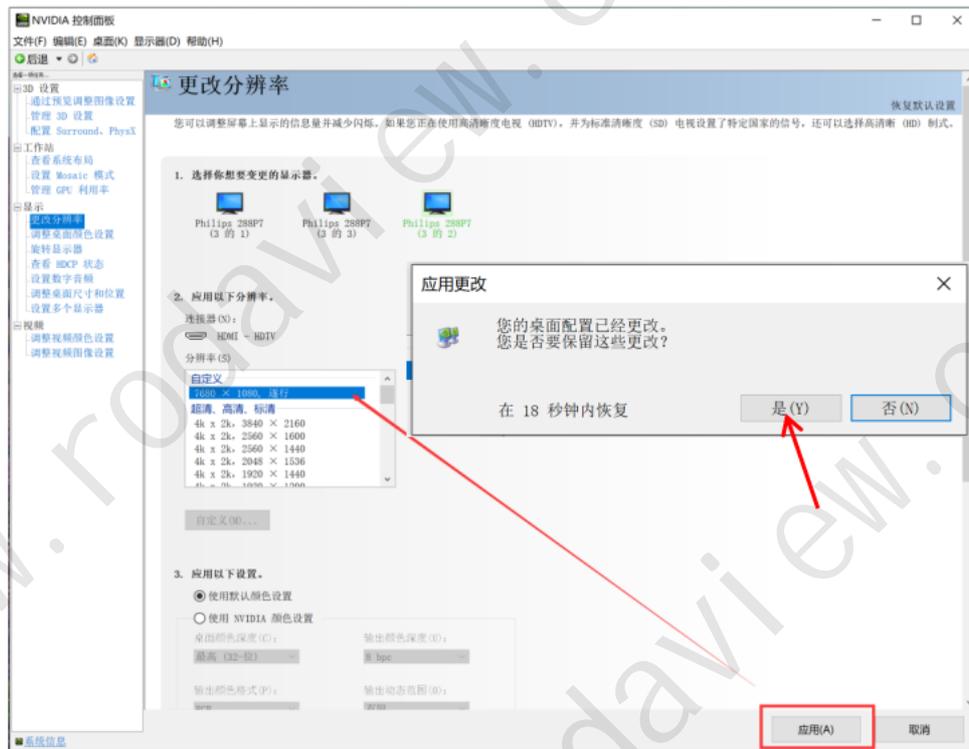
10. Repeat steps 4–9 for other displays. Close and reopen NVIDIA Control Panel to verify if resolutions are updated. If not, repeat the process.
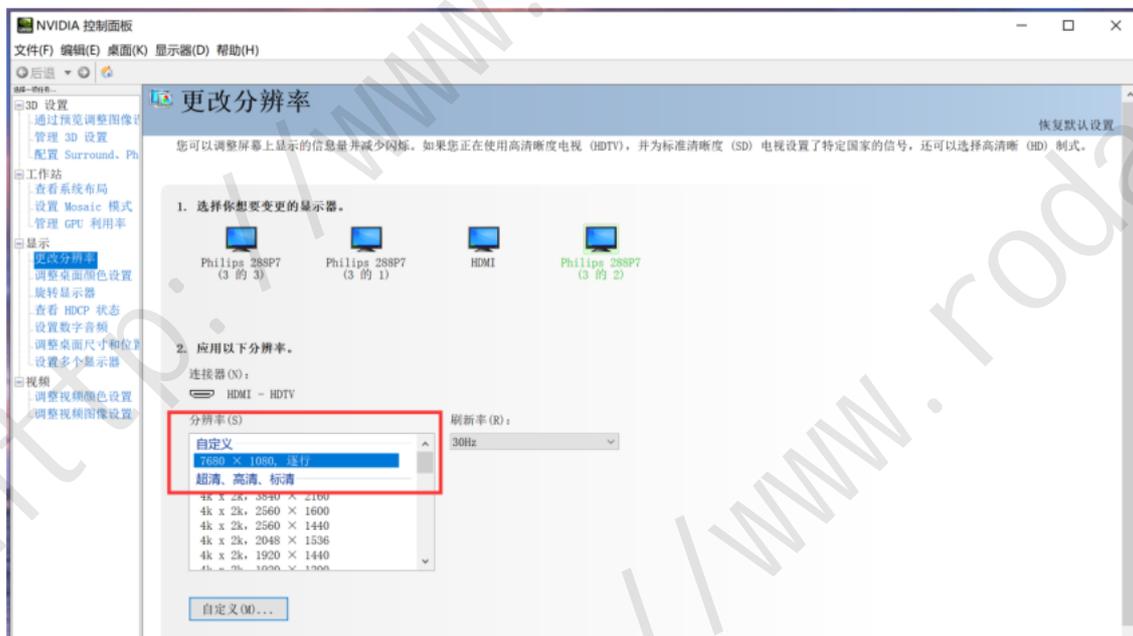
3.7 Rotating Displays

Right-click the desktop and select   **NVIDIA Control Panel**.

IV. Frequently Asked Questions

4.1Blue 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.

4.2 Multi-Screen Hub Blue 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

Prerequisites	Symptom	Solution
Output resolution is correct	Image not full screen	Set graphics card properties and display properties to "Full Screen Stretch"
Integrated graphics card	No image output	Replace with a dedicated graphics card, or contact our technical support

V. Product Photos and Dimensions

Product physical image
Front view
Back view