



Shenzhen Bitvisus technology limited. Video News Co., Ltd

BIT-MSE-4K60-104PRO

4K Multi screen expansion

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1.Overview

1.1 Product Features

1. This is an industrial-grade high-performance product specially developed for the needs of multi-desktop operation and multi-channel projection fusion. It uses HDMI/DP input interface and HDMI output.
2. Super high resolution, the output supports a maximum resolution of 4x1920x1200@60Hz/1920x1200x4@60Hz, which is backward compatible with low resolution.
3. Support 1xN, Nx1, MxN and 90 ° rotation ratio stitching, without stretching, deformation, and wider field of vision.
4. Support to modify the EDID through the USB interface.
5. Adopt high-end programmable FPGA chip with 45nm technology, full hardware real-time processing architecture, ultra fast processing speed without delay.
6. Industrial-grade design, thickened 6-layer PCB board, 16KV super strong anti-static ability, super product stability.

7. Support parallel operation to meet the real-time display requirements of large screen.

8. Low power consumption, energy saving and environmental protection design. Conductive heat dissipation is used inside without any external heat dissipation measures.

1.2 Application Scenario

Ultra-high-resolution desktop applications, large screen walls, command and dispatch systems, multi-screen video surveillance, engineering display applications, multi-channel projection, VR, ring screen theaters, large advertising walls, LCD / LED multi-screen, etc.

2. Specifications

Product name	BIT-MSE-4K60-104PRO
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Input Max. Pixel FPS	600MHz
Output Max. Pixel FPS	330MHz
Input type	HDMI or DP (choose one, HDMI priority) HDCP2.2
Output type	4 HDMI
3 screens support typical resolution	3x1920x1200@60Hz 3x1920x1080@60Hz 3x1280x800@60Hz 3x1024x768@60Hz
4 screens support typical resolution	4x1920x1200@60Hz 4x1920x1080@60Hz 4x1280x800@60Hz 4x1024x768@60Hz
Product factory default resolution	3840x2160@60Hz
2x2 Max supported	3840x2400@60Hz



resolution	
3x1/1x3Max supported resolution	1920x3600@60Hz/5760x1200@60Hz
4x1/1x4Max supported resolution	1920x4800@60Hz/7680x1200@60Hz
Output distance	15 meters
power supply	12V@2A AC-DC
Warranty	One year

3. Operation instructions

3.1 Product panel description



BIT-MSE-4K60-104PRO output panel

A: HDMI 2.0 input

B: DP 1.2 input

C.D.E.F: HDMI output





BIT-MSE-4K60-104PRO output panel

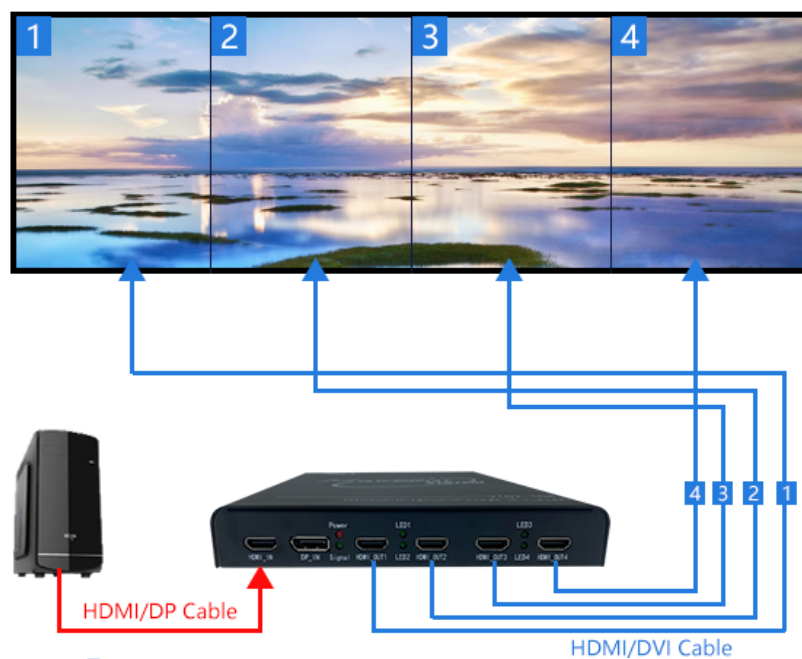
A: Power interface

B: DEBUG debug port



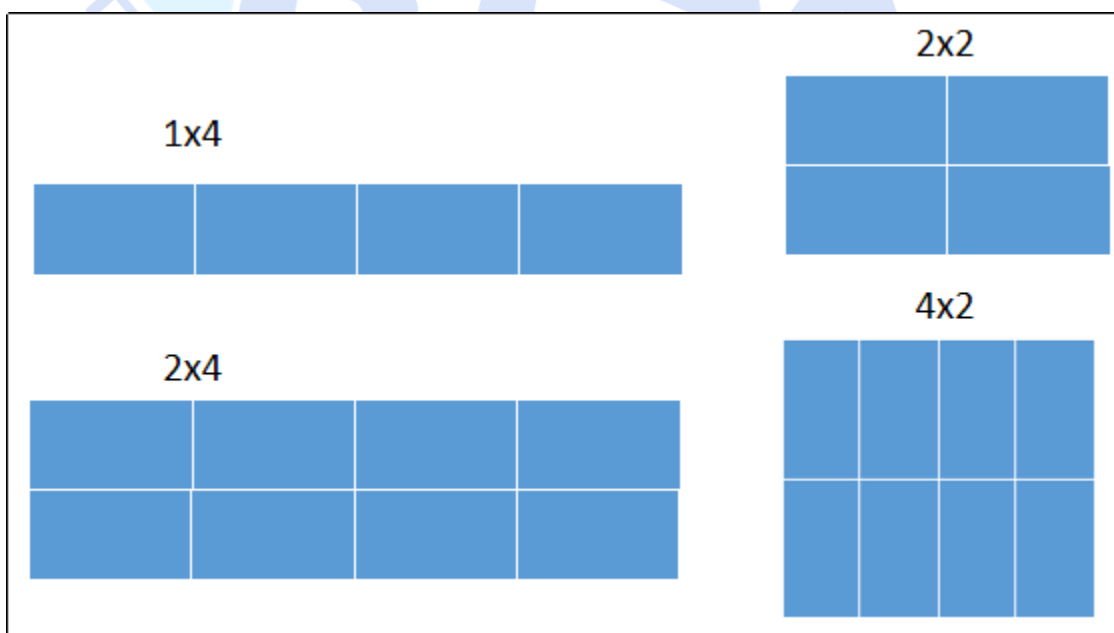
3.2. Typical connection case

- 1) The output of computer graphics card is connected to it.
- 2) The output of multi screen treasure is connected to the display Device , and the serial number of the output port is connected to corresponding display screen.
- 3) It connected with 12V power supply, supporting Poe at the same time.
- 4) After the correct connection is completed, the power light, signal light, the port connection signal light and output light will display the normally on state.
- 5) Its connection is flexible, can be combined arbitrarily, easy and quick to operate.



Typical 1X4 schematic

Some splicing modes are as follows



3.3. Custom resolution

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

Step 2: Select "Change Resolution", select the multi-screen device to be changed, and then click "Customize".

Step 3: Select "Create custom resolution".

Step 4: Please refer to the document "Custom Resolution" to set.

Step 5: After setting, click Test and select "Yes" in the pop-up command box.

Step 6: Click OK.

Step 7: After setting the resolution, select the custom resolution and refresh rate this time, and then click "Apply".

Step 8: After applying, the "Apply Changes" command box pops up, click "Yes".

Step 9: Check the resolution, close the "NVIDIA Control Panel", return to the desktop, right-click, select "Screen Resolution" in the pop-up command box, and then check the

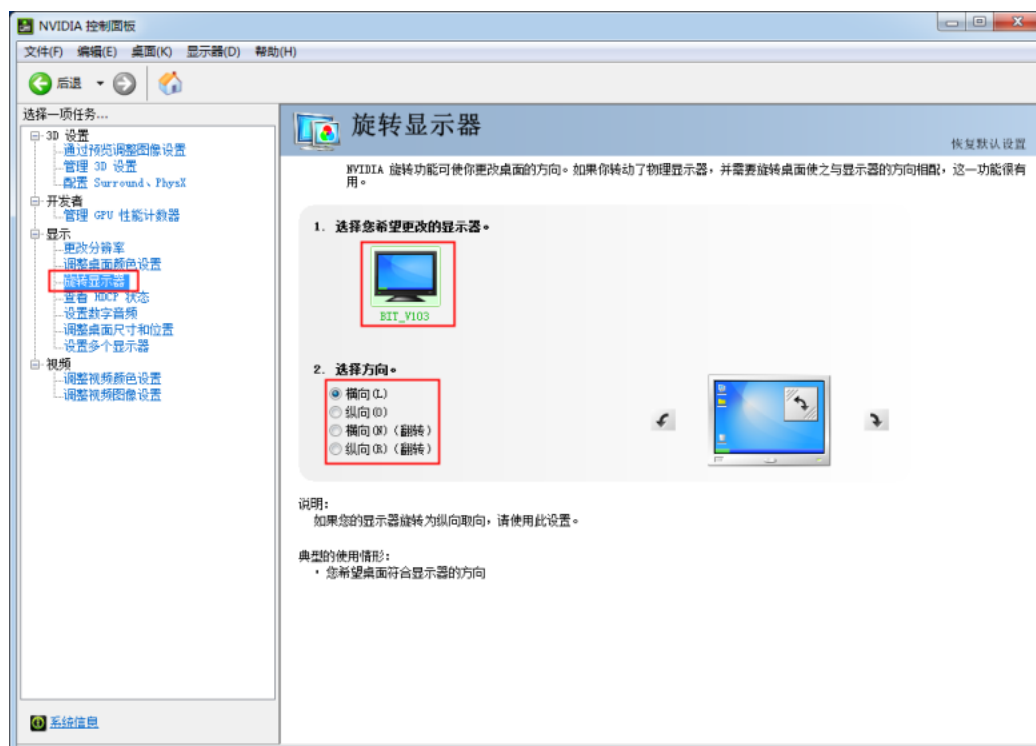


resolution of Multiscreen.



3.4. Rotating the display

Rotate the monitor to suit different requirements



4. Common problem

4.1. Red light problems

1. Check the power cord, you must use the 12V power cord delivered.
2. Check whether the power of multi-screen treasure is stable (whether the voltage is stable, etc.).
3. Replace the other 12V power adapter and test whether it is a problem with the power adapter.
4. The equipment light is damaged, or other equipment malfunctions.
5. Multi-screen treasure input data line must use the delivery line

4.2. Green light problems

1. The input signal lamp is damaged, or other faults (EDID chip is damaged, etc.).
2. The input signal light is damaged, or other malfunctions (computer graphics problems, device resolution problems, secondary equipment problems, signal cable problems, etc.).
3. When there is input (the input indicator is always on) and there is no output (the output indicator is blinking / off), check whether the computer graphics card has an output. You can connect the graphics card output to a monitor that can be used normally to see if there is an output. If several output ports are normal, you can exchange the normal output port with the abnormal output port. After the exchange, the abnormal port can output normally, it may be a problem with the output line. Replace the output line.

4.3. Computer graphics card problems

1. Check whether the graphics card requires additional power supply. Multi-output graphics cards with multiple output ports generally require additional power supply. If there is an output port switch control, refer to the instruction manual of the corresponding type of graphics card.
2. Make sure the output port of the graphics card is more than 300M bandwidth output.
3. Please directly use the output port on the graphics card to connect with multi-screen treasure.
4. If the computer graphics card is connected to a multi-screen treasure device, check the graphics control panel to see if you see the name of the multi-screen treasure device.
5. It is best to install the latest version of the graphics card driver, download the latest driver for the graphics card from the official website, and uninstall the old driver before installing the latest driver.



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4.4. Display device problems

1.Show whether the device supports the output resolution.
You can test the resolution by directly connecting the computer graphics card to the device.

2.Show whether the power supply of the device is stable and turn on the signal receiving function (power on, search signal function, etc.)

3.According to the transmission distance from the multi-screen treasure to the display device, select the appropriate receiving end.

4.If the connection distance is more than 1.5 meters, it is recommended to use network transfer.