



Shenzhen Bitvisus technology limited. Video News Co., Ltd



BIT-MSE-4K60-103HD

4K Multi screen expansion



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1.Overview

1.1 Product features

It is an industrial-grade high-performance product specially developed for the integration of multi-desktop operation and multi-channel projection. It adopts HDMI/DP input interface and HDMI output interface.

Products with ultra high resolution,the output supports the highest resolution of 3x1920x1200@60Hz/2x3840*2160@60Hz, and the downward compatible low resolution, the factory default resolution of 3072x768@60HZ.

High end programmable FPGA chip with 45nm technology, full hardware real-time processing architecture, ultra fast processing speed without delay.

Industrial grade design, thickened 6-layer PCB, 16Kv strong anti-static ability, strong product stability.

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

Low power consumption, energy saving and environmental

protection design, internal conduction heat dissipation, no external heat dissipation measures, high reliability.

1.2 Application

Super high resolution desktop application, super large screen wall, command and dispatching system, multi screen video monitoring, engineering display application, multi-channel projection, virtual reality, ring theater, large advertising wall, LCD / LED multi screen, etc.



2. Specifications

Product name	BIT-MSE-4K60-103HD
Input Max. Pixel FPS	600MHz
Output Max. Pixel FPS	330MHz
Supports the highest resolution	3x1920x1200@60Hz (horizontal screen) 3x1920x1080@60Hz (vertical screen)
Factory default resolution:	3072x768@60Hz
Input interface type	HDMI/DP(Choose one, HDMI has priority)
Output interface type	3 HDMI outputs
Power Supply	12V@2A AC-DC power cable
Quality assurance	One year
Output distance	15 meters

3. Operation instructions

3.1 Product panel description



BIT-MSE-4K60-103HD output panel

A: HDMI 2.0 input

B: DP 1.2 input

C. D.E.: HDMI outputost.

HDMI/DP(Choose one, HDMI has priority)



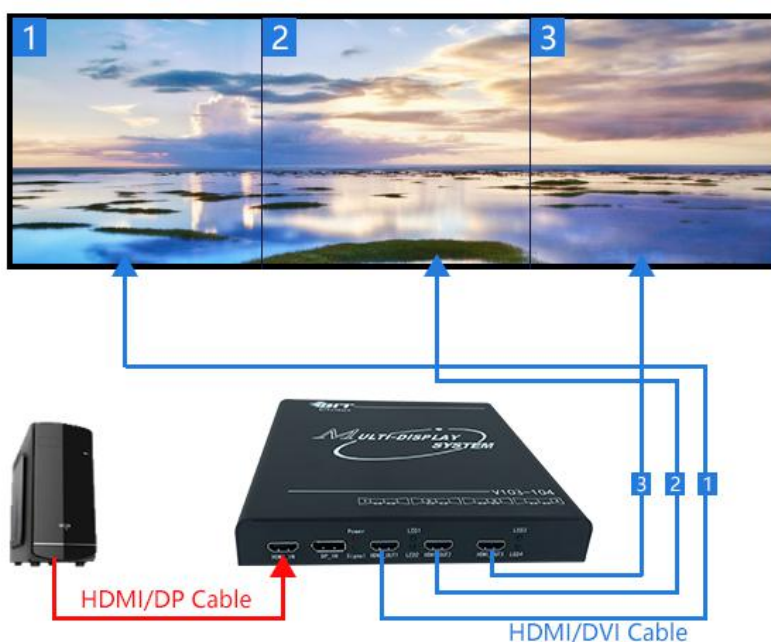
BIT-MSE-4K60-104HD output panel

A: Power interface

B: DEBUG debug port

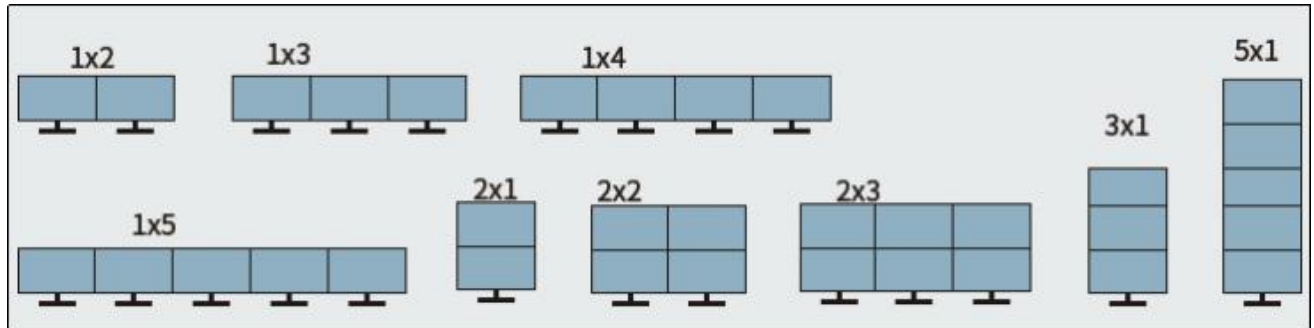
3.2、 Typical connection case

- 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 1X3 schematic

Some splicing modes are as follows



3.3、 Resolution setting

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 and must use the 12V power cord provided by us.
2. Check the power supply is stable (Voltage stability or not, etc.).
3. If you need to replace other power adapter by yourself, you should test the adapter first to ensure its quality.
4. The equipment lamp is damaged, or the equipment has other faults.
5. The input cable of the equipment must use the cable provided by us

4.2. Green light problems

1. Input signal lamp is damaged, or other faults(EDID chip is damaged, etc.).
2. Input signal lamp is damaged, or other faults (There may be problems with the computer graphics card, device resolution, auxiliary devices and signal lines) 。

When there is input (the input indicator is always on) and no output (the output indicator is flashing / off),you should check whether the computer graphics card has output.You can connect the output of the video card to the display that can be used normally .If there is output.If one or more output ports are normal,the normal output port can be exchanged with the abnormal output port, after switching, the abnormal port can output normally.It may be the problem of the output line. Replace the output line.

4.3. Computer graphics card problems

1. Check whether the computer graphics card needs extra power. Check whether there is output port switch control. Please refer to the operation manual of corresponding model of video card for operation.
2. Confirm that the DVI / DP output port of the computer graphics card is more than 300m bandwidth.
3. It is not recommended to use other signals to convert to DVI / DP. Please directly use the DVI / DP port on the video card to connect with the device.
4. If the computer graphics card is connected to this device, check the video card control panel to see if the device name is displayed.
5. It is better to install the latest version of the computer graphics card driver, download the latest driver of the graphics card from the official website, and uninstall the old driver before installing the latest driver.

4.4. Display problems

1. Check whether the display device supports the output resolution, which can be tested by directly connecting the computer graphics card to the device.
2. Display whether the power supply of the equipment is stable and turn on the signal receiving function (power on, search signal function, etc.)According to the transmission distance between the device and the display device to select the appropriate receiver.
3. If you use a short wire to connect this device and the display device, or there is no output, it may be that the resolution required by the display device is quite special, please refer to "resolution setting" for operation.
4. If the connection distance is more than 1.5m, it is recommended to use the network extender to transfer.

4.5. Problem solving

Prerequisites	Problem phenomenon	Solution
Output resolution is correct	Blue image	Set the computer properties, set to "Tile" in the desktop properties
Integrated Graphics	No image output	Change the discrete graphics card, or contact a technician