

# V2460

## Video Controller

V1.0.0

Nova 2-in-1 controller embedded software V3.0



## Specifications

## update record

release version	release time	Revision Notes
V1.0.0	2023-02-10	First release

## Introduction

V2460 is a 2-in-1 video controller with 24 network ports that integrates video processing and video control functions. A single device can load up to 15.6 million pixels, with a maximum width of 16384 pixels and a maximum of 8192 pixels, meeting the requirements of ultra-wide and ultra-high video on-site. Display screen control.

V2460 has powerful video signal receiving and processing capabilities, supports 10-bit video processing, supports up to 4K×2K@60Hz video input, and can support up to 6+1 video signal inputs, supports 6 independent windows, output screen scaling, point-by-point brightness and color correction and other functions, and can provide excellent image display.

V2460 adopts industrial-grade housing. With its powerful video processing and transmission capabilities, it can adapt to complex operating environments and is widely used in various large-scale fixed-installation occasions such as government, enterprises, institutions and military command centers.

## Certification

CCC .

**If the product does not have relevant certification in any country or region where it is sold, please contact Nova Nebula as soon as possible for confirmation or processing. Otherwise, if relevant legal risks are caused, the customer shall bear them by himself or Nova Nebula shall have the right to pursue compensation.**

## characteristic

- With complete video input interface
  - 1 × HDMI 2.0
  - 1 × DP 1.2
  - 4 × HDMI 1.3
  - 1 × 3G SDI ( IN + LOOP ) , optional
- Multiple outputs, large load capacity
  - 24 network output ports, maximum load 15.6 million pixels , maximum width of a single device output 16384, height 8192
- Audio Input and Output
  - HDMI and DP support accompanying audio input
  - Support 3.5mm independent audio input and output
- Support personalized screen zoom

- Supports three screen zoom modes, including point-to-point mode, full screen zoom, and custom zoom
  - Multi-window display
    - Support 2 4K ×2K+ 4 2K× 1K Grid Window
    - Window size and position can be adjusted individually
    - Window priority can be adjusted
  - Powerful video processing capabilities
    - Equipped with SuperView III image quality processing technology , supports stepless zooming of output images
    - Support one-click full-screen zoom
    - Support arbitrary interception of input source
  - Support EDID management
 

Support user-defined EDID and preset EDID
  - Image quality adjustment
 

Support output image quality management, including brightness, saturation, contrast, and hue adjustment
  - Multiple scene saving and calling
- Supports 10 custom scenes, which can be loaded with one click
  - Support scene deletion, overwriting, saving and copying operations
- Hot Backup
    - Support backup between devices
    - Support network port backup
  - Synchronous output
 

Supports using internal input source as synchronization source to ensure output image synchronization
  - Point-by-point brightness and chromaticity correction
 

With NovaLCT and the calibration platform, the brightness and chromaticity of each light point are calibrated to effectively eliminate color difference, so that the brightness and chromaticity of the entire screen are highly uniform and consistent, improving the image quality of the display. It also supports hardware screen display function.
  - Flexible routing
 

Leaving it blank does not count as load, there is no rectangular frame limit, and the network port bandwidth is fully utilized



## Appearance

### Front Panel



button	illustrate
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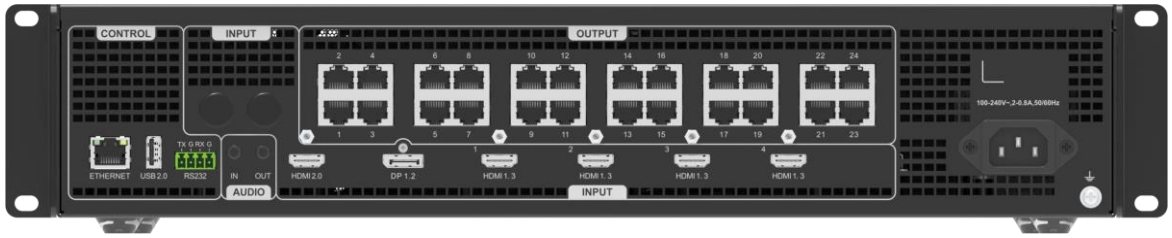
power button	ON / OFF
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button	illustrate
Window control buttons	<ul style="list-style-type: none"> <li>• When the window is not open, short press the window button to enter the corresponding window properties menu and open the window.</li> <li>• When the window is open, short press the window button to enter the corresponding window properties menu</li> <li>• When the window is open, long press the window button to turn off the window button light status: <ul style="list-style-type: none"> <li>• The button light is on to indicate that the window is open.</li> <li>• The button light is off, indicating that the window is closed.</li> <li>• When the button light flashes, it means the window is being edited.</li> </ul> </li> </ul> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;">  说明  WIN-3 Windows, WIN-4 Windows, WIN-5 Windows, and WIN-6 Windows do not support switching the source to HDMI 2.0 or DP 1.2. </div> <ul style="list-style-type: none"> <li>• S C A L E Key: " Full Screen Auto Zoom " shortcut key, which will automatically expand the lowest priority and open window to full screen <ul style="list-style-type: none"> <li>– On: Full screen auto-zoom is on</li> <li>– Off: Full screen auto-zoom is off</li> </ul> </li> </ul>
TFT screen	Used to display the current status of the device and set the menu
Knobs	Select menus, adjust parameters and confirm operations
return key	Exit the current menu or cancel the operation
Input Source	Input source switch key and input source signal status <ul style="list-style-type: none"> <li>• On: There is a signal from the input source</li> <li>• Flashing: There is no signal from the input source, but it is used by the window</li> <li>• Off: No signal from input source</li> </ul> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;">  说明  In the main menu interface, when the WIN-1 window is open, you can quickly switch sources by short pressing the input source button. </div>

 说明


Press and hold the knob and the back button for more than 3 seconds to lock or unlock the front panel buttons.

## Rear Panel



\* The product images in this article are for reference only. Please refer to the actual product purchased.

input interface		
interface	quantity	illustrate
HDMI 2.0	1	1×HDMI 2.0 <ul style="list-style-type: none"> <li>• Maximum input resolution 4K×2K@60Hz</li> <li>• Support custom resolution Limit width: 8192, Limit height: 8192</li> <li>• HDCP Support 1.4 and HDCP 2.2</li> <li>• Does not support interlaced signal input</li> <li>• Supports accompanying audio</li> </ul>
DP 1.2	1	1×DP 1.2 <ul style="list-style-type: none"> <li>• Maximum input resolution 4K×2K@60Hz/8K×1K@60Hz</li> <li>• Support custom resolution Limit width: 8192, Limit height: 8192</li> <li>• HDCP Support 1.3</li> <li>• Support EDID adjustment</li> <li>• Does not support interlaced signal input</li> <li>• Supports accompanying audio</li> </ul>
HDMI 1.3	4	4×HDMI 1.3 <ul style="list-style-type: none"> <li>• Maximum input resolution 2K×1K@60Hz</li> <li>• Support custom resolution Maximum width: 2048, Maximum height: 2048</li> </ul>

		<ul style="list-style-type: none"> <li>• HDCP Support 1.4</li> <li>• Does not support interlaced signal input</li> <li>• Supports accompanying audio</li> </ul>
3G- SDI	1	<p>1×3G-SDI input ( optional )</p> <ul style="list-style-type: none"> <li>• Supports ST-424 ( 3G), ST-292 ( HD ) and ST-259 (SD) standard video Frequency source input</li> <li>• Maximum resolution 1920×1080@60Hz</li> <li>• Input resolution setting is not supported</li> <li>• Support interlaced signal input and de-interlacing processing</li> <li>• Support 3G-SDI Loop Output</li> </ul>
audio port		
AUDIO	2	<p>1×AUDIO input interface, 1×AUDIO output interface</p> <ul style="list-style-type: none"> <li>• 3.5mm standard audio input and output interface</li> <li>• Audio sampling rate supports 48kHz</li> </ul>
Output Interface		
interface	quantity	illustrate
Network port	twenty four	<p>Gigabit Ethernet output interface</p> <ul style="list-style-type: none"> <li>• Maximum load 15.6 million pixels Maximum width: 16384, Maximum height: 8192</li> <li>• The maximum load of a single network port is: the input source bit is 8bit and the output frame rate is 60Hz , the pixel count is 650,000</li> </ul> <p> 说明</p> <p>Network port 1 and network port 2 support audio output. When parsing audio through a multi-function card, you need to connect the multi-function card to network port 1 or network port 2.</p>
Control interface		
interface	quantity	illustrate
ETHERNET	1	<p>Connect to the host computer for firmware upgrade. Network port</p>

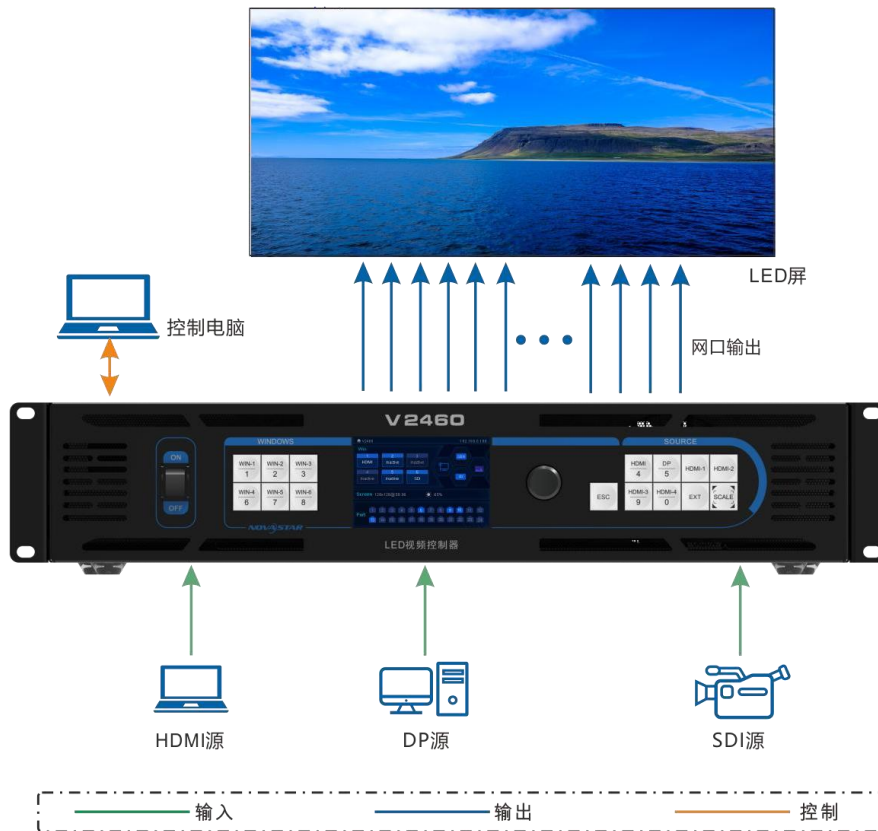
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		status indicator light description:
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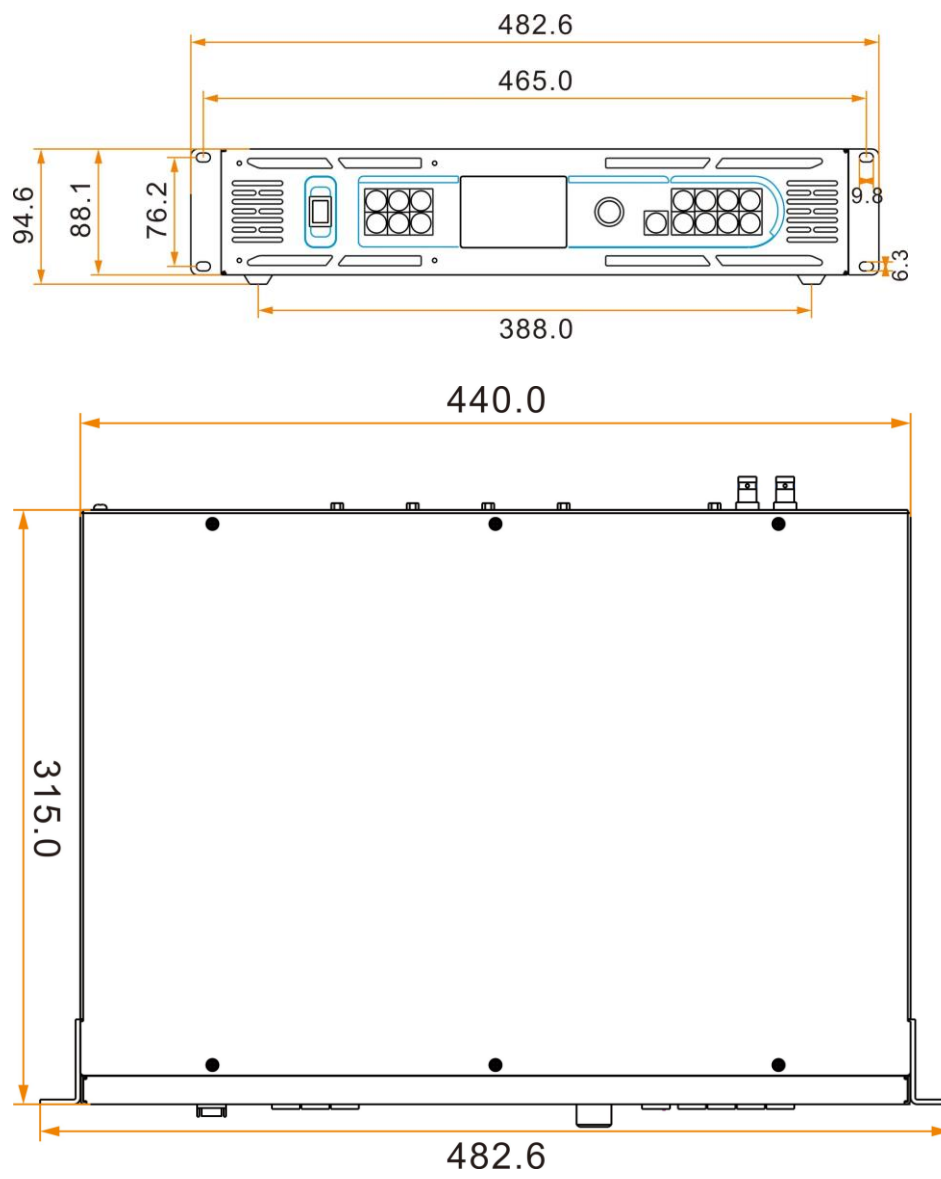


		<ul style="list-style-type: none"> <li>• The indicator light on the upper left corner of the network port is the current network port connection status indicator                         <ul style="list-style-type: none"> <li>– Steady on: The line connection is normal</li> <li>– Flashing: The line connection is unstable</li> <li>– Off: The line is not connected</li> </ul> </li> <li>• The indicator light in the upper right corner of the network port is the current network port communication status indicator                         <ul style="list-style-type: none"> <li>– Steady on: The network cable is short-circuited</li> <li>– Flashing: The signal is normal and communicating</li> <li>– Off: No data transmission</li> </ul> </li> </ul>
USB	1	Upgrading device firmware via USB flash drive
RS232	1	Connecting to the central control device

## Application Scenario



## size



Tolerance:  $\pm 0.3$  Unit : mm

## Product Specifications

Machine Specifications		
Electrical Specifications	Power interface	AC100V~240V 50/60Hz
	Power consumption	50W
working environment	temperature	0°C~50°C
	humidity	0%RH~80%RH
storage temperature	temperature	-20 °C~+60°C
	humidity	0%RH~95%RH
Physical specifications	size	482.6mm × 315.0mm × 94.6mm
	net weight	6.4 kg
	Total weight	8.9 kg
	Noise parameters	41 dB(A)
Packaging Information	Carton	535.0mm × 200.0mm × 430.0mm
	Accessory Box	1×power cable, 1×DP cable, 1×HDMI cable, 1×CAT5E network cable, 1× screwdriver , 1×quick guide, 1×certificate of conformity, 1×Phoenix terminal
	Large outer box	550.0mm × 215.0mm × 440.0mm

## Video source characteristics

input interface	Color Depth		Maximum input resolution
HDMI 2.0	8bit	RGB4:4:4	3840×2160@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
		YCbCr4:2:0	
10bit/12bit	10bit/12bit	RGB4:4:4	3840×2160@30Hz
		YCbCr4:4:4	

input interface	Color Depth		Maximum input resolution
DP 1.2		YCbCr4:2:2	3840×2160@60Hz
		YCbCr4:2:0	
	8bit	RGB4:4:4	3840×2160@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
	10bit/12bit	RGB4:4:4	3840×2160@30Hz
YCbCr4:4:4			
YCbCr4:2:2		3840×2160@60Hz	
HDMI 1.3	8bit	RGB4:4:4	1920×1080@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
	10bit	RGB4:4:4	1920×1080@60Hz
		YCbCr4:4:4	
		YCbCr4:2:2	
3G- SDI	<ul style="list-style-type: none"> <li>• Maximum input resolution: 1920×1080@60Hz</li> <li>• Does not support EDID settings</li> <li>• Supports ST-424 ( 3G), ST-292 (HD ) and ST-259 (SD ) standard video input</li> </ul>		

## Disclaimer and Warning

This is a Class A product. In a living environment, this product may cause radio interference. In this case, the user may be required to take practical measures to prevent the interference.

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