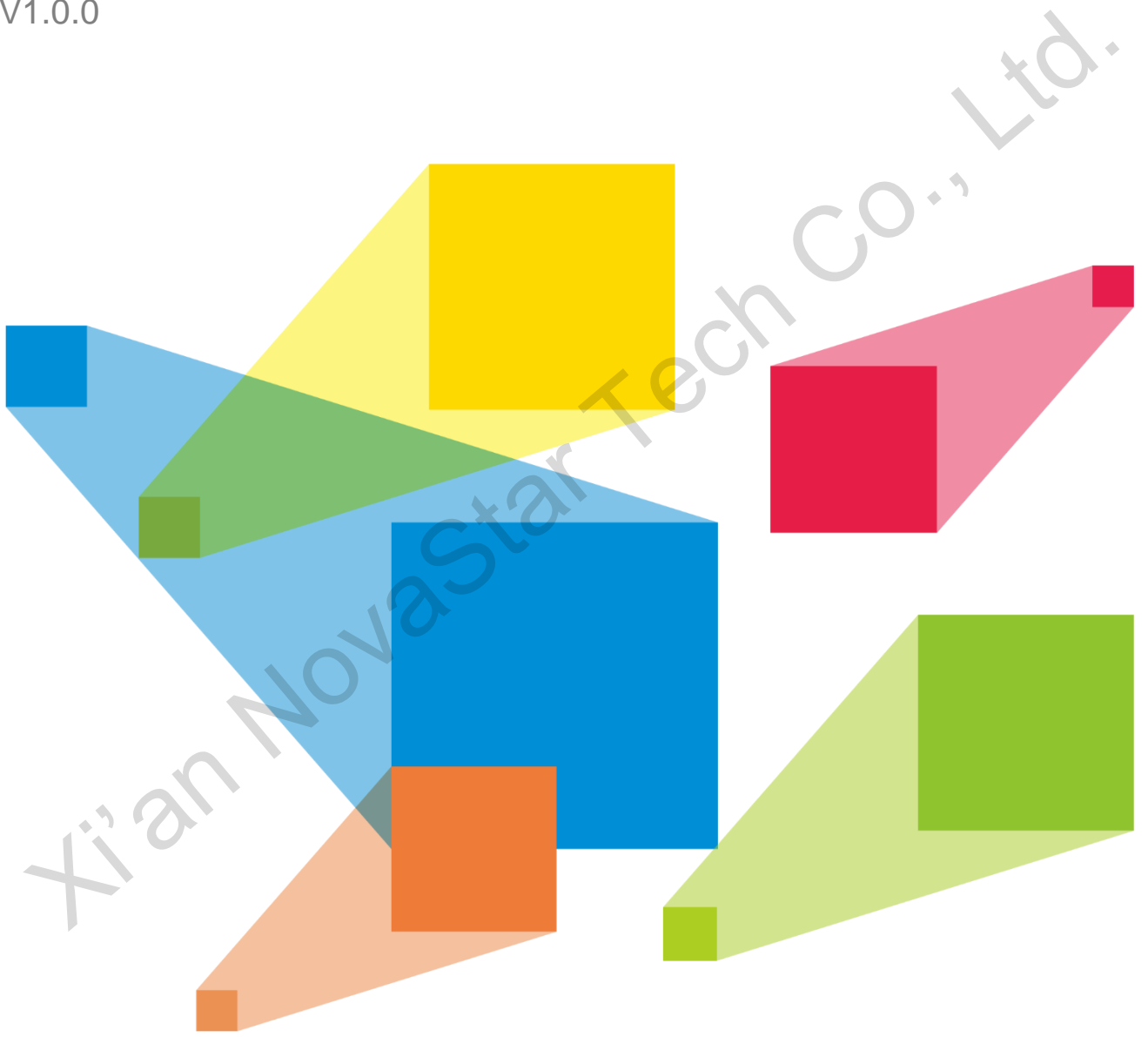


# VX4S-N

## All-in-One Controller

V1.0.0



Specifications

## Overview

The VX4S-N is a professional LED display controller developed by NovaStar. Besides the function of display control, it also features powerful image processing capabilities. With excellent image quality and flexible image control, the VX4S-N greatly meets the needs of the media industry.

## Features

- Industry-standard input connectors
  - 1x CVBS
  - 1x VGA
  - 1x DVI (IN+LOOP)
  - 1x HDMI 1.3
  - 1x DP 1.1
  - 1x 3G-SDI (IN+LOOP)
- 4x Gigabit Ethernet outputs, capable of loading up to 2,300,000 pixels
- Quick screen configuration supported  
Computer software for system configuration is not necessary.
- Seamless high-speed switching and fade effect supported, to present professional-quality images
- Adjustable PIP position and size, free control at will
- Nova G4 engine adopted, enabling exquisite image display with a good sense of depth, without flickering and scanning lines
- White balance calibration and color gamut mapping based on different features of LEDs used by screens, to ensure the reproduction of true colors
- Independent external audio output supported
- High bit-depth video input: 10-bit and 8-bit
- Multiple device units connected for image mosaic
- NovaStar's new-generation pixel level calibration technology adopted, ensuring a fast and efficient calibration process
- An innovative architecture adopted, allowing for smart screen configuration  
The screen debugging can be completed within several minutes, which greatly shortens the preparation time on the stage.

## Appearance

### Front Panel



Button	Description
Power switch	Power on or power off the device.
LCD screen	Display the device status, menus, submenus and messages.
Knob	<ul style="list-style-type: none"> <li>• Rotate the knob to select a menu item or adjust the parameter value.</li> <li>• Press the knob to confirm the setting or operation.</li> </ul>
ESC button	Exit the current menu or cancel the operation.
Control buttons	<ul style="list-style-type: none"> <li>• PIP: Enable or disable the PIP function.                             <ul style="list-style-type: none"> <li>– On: PIP enabled</li> <li>– Off: PIP disabled</li> </ul> </li> <li>• SCALE: Enable or disable the image scaling function.                             <ul style="list-style-type: none"> <li>– On: Image scaling function enabled</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Off: Image scaling function disabled</li> <li>• MODE: A shortcut button for loading or saving the preset</li> <li>• TEST: Open or close the test pattern.                             <ul style="list-style-type: none"> <li>- On: Open the test pattern.</li> <li>- Off: Close the test pattern.</li> </ul> </li> </ul>
Input source buttons	<p>Switch the layer input source and display the input source status.</p> <ul style="list-style-type: none"> <li>• On: The input source is connected and being used.</li> <li>• Flashing: The input source is not connected, but already used.</li> <li>• Off: The input source is not used.</li> </ul>
Function buttons	<ul style="list-style-type: none"> <li>• TAKE: When the PIP function is enabled, press this button to switch between the main layer and PIP.</li> <li>• FN: An assignable button</li> </ul>
USB (Type-B)	Connect to the control PC.

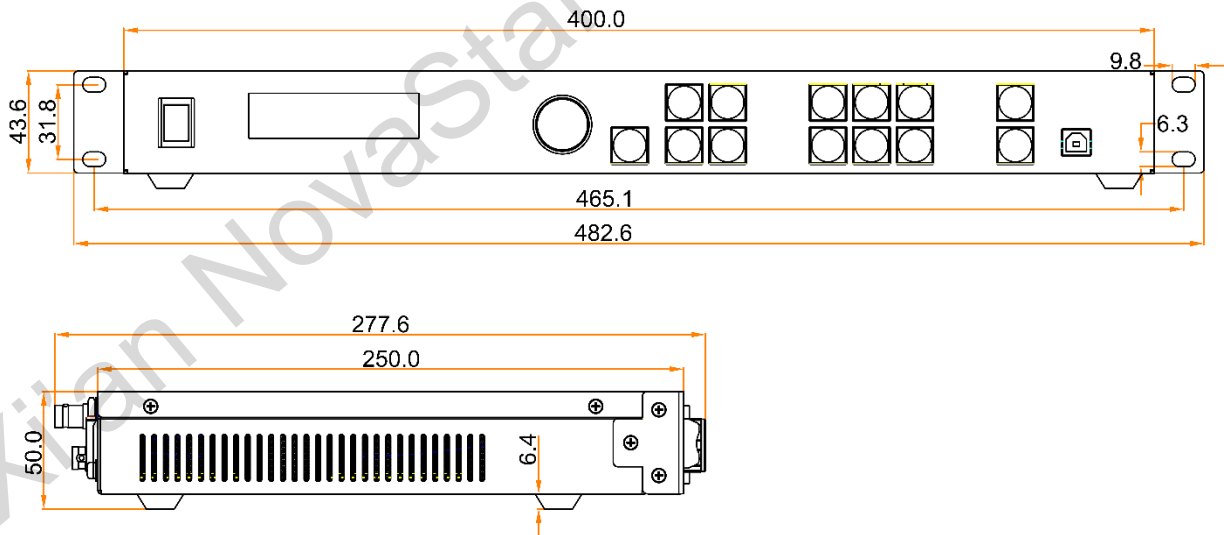
## Rear Panel



Input		
Connector	Qty	Description
3G-SDI	1	<ul style="list-style-type: none"> <li>• Up to 1920x1080@60Hz input resolution</li> <li>• Support for progressive and interlaced signal inputs</li> <li>• Support for deinterlacing processing</li> <li>• Support for loop through</li> </ul>
AUDIO	1	A connector for connecting the external audio
VGA	1	VESA standard, up to 1920x1200@60Hz input resolution
CVBS	1	A connector for accepting PAL/NTSC standard video inputs
DVI	1	<ul style="list-style-type: none"> <li>• VESA standard, up to 1920x1200@60Hz input resolution</li> <li>• Support for custom resolutions                             <ul style="list-style-type: none"> <li>- Max. width: 3840 pixels (3840x652@60Hz)</li> <li>- Max. height: 1920 pixels (1246x1920@60Hz)</li> </ul> </li> <li>• HDCP 1.4 compliant</li> <li>• Support for interlaced signal inputs</li> <li>• Support for loop through</li> </ul>
HDMI 1.3	1	<ul style="list-style-type: none"> <li>• Up to 1920x1200@60Hz input resolution</li> <li>• Support for custom resolutions                             <ul style="list-style-type: none"> <li>- Max. width: 3840 pixels (3840x652@60Hz)</li> <li>- Max. height: 1920 pixels (1246x1920@60Hz)</li> </ul> </li> <li>• HDCP 1.4 compliant</li> <li>• Support for interlaced signal inputs</li> </ul>
DP 1.1	1	<ul style="list-style-type: none"> <li>• Up to 1920x1200@60Hz input resolution</li> <li>• Support for custom resolutions</li> </ul>

		<ul style="list-style-type: none"> <li>- Max. width: 3840 pixels (3840x652@60Hz)</li> <li>- Max. height: 1920 pixels (1246x1920@60Hz)</li> <li>• HDCP 1.3 compliant</li> <li>• Support for interlaced signal inputs</li> </ul>
<b>Output</b>		
Ethernet port	4	<p>4 ports load up to 2,300,000 pixels.</p> <ul style="list-style-type: none"> <li>• Max. width: 3840 pixels</li> <li>• Max. height: 1920 pixels</li> </ul> <p>Only Ethernet port 1 can be used for audio output. When the multifunction card is used for audio decoding, the card must be connected to the Ethernet port 1.</p>
DVI OUT	1	A connector for monitoring the output images
<b>Control</b>		
ETHERNET	1	<ul style="list-style-type: none"> <li>• Connect to the control PC for communication.</li> <li>• Connect to the network.</li> </ul>
USB (Type-B)	1	<ul style="list-style-type: none"> <li>• Connect to the control PC for device control.</li> <li>• Input connector to link another device</li> </ul>
USB (Type-A)	1	Output connector to link another device

## Dimensions



Tolerance:  $\pm 0.3$

Unit: mm

## Specifications

Overall Specifications		
Electrical Specifications	Power connector	100-240V~, 50/60Hz. 1.5A
	Power consumption	25 W
Operating Environment	Temperature	-20°C ~ +60°C
	Humidity	20% RH to 90% RH, non-condensing
	Storage Humidity	10% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm × 277.6 mm × 50.0 mm
	Net weight	2.55 kg
	Gross weight	5.6 kg
Packing Information	Carrying case	530 mm × 140 mm × 370 mm
	Accessories	402 mm × 347 mm × 65 mm 1x Power cord 1x USB cable 1x DVI cable 1x HDMI cable 1x User Manual
	Packing box	550 mm × 400 mm × 175 mm
Certifications		CE, RoHS, FCC, UL, CMIM
Noise Level (typical at 25°C/77°F)		38 dB (A)

## Video Source Features

Input Connector	Color Depth		Recommended Max. Input Resolution
HDMI 1.3 DP 1.1	8-bit	RGB 4:4:4	1920×1080@60Hz
		YCbCr 4:4:4	
		YCbCr 4:2:2	
		YCbCr 4:2:0	Not supported
	10-bit	RGB 4:4:4	1920×1080@60Hz
		YCbCr 4:4:4	
		YCbCr 4:2:2	
		YCbCr 4:2:0	Not supported
	12-bit	RGB 4:4:4	Not supported
		YCbCr 4:4:4	
		YCbCr 4:2:2	
		YCbCr 4:2:0	
SL-DVI	8-bit	RGB 4:4:4	1920×1080@60Hz
3G-SDI	<ul style="list-style-type: none"> <li>• Max. input resolution: 1920×1080@60Hz</li> <li>• Supports ST-424 (3G) and ST-292 (HD) standard video inputs.</li> <li>• DOES NOT support input resolution and bit depth settings.</li> </ul>		

## Attachment

The Conflict List of PIP Signal Source.

		Main Layer Input Source					
		HDMI	DVI	VGA	CVBS	SDI	DP
PIP Input Source	HDMI	-	x	√	√	√	√
	DVI	x	-	√	√	√	√
	VGA	√	√	-	√	√	√
	CVBS	√	√	√	-	√	√
	SDI	√	√	√	√	-	√
	DP	√	√	√	√	√	-

- √ denotes the input sources can be used by both the main layer and PIP at the same time.
- x denotes the input sources cannot be used by both the main layer and PIP at the same time.
- - denotes the main layer and PIP use the same input source.

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