VX400s-N

All-in-One Controller
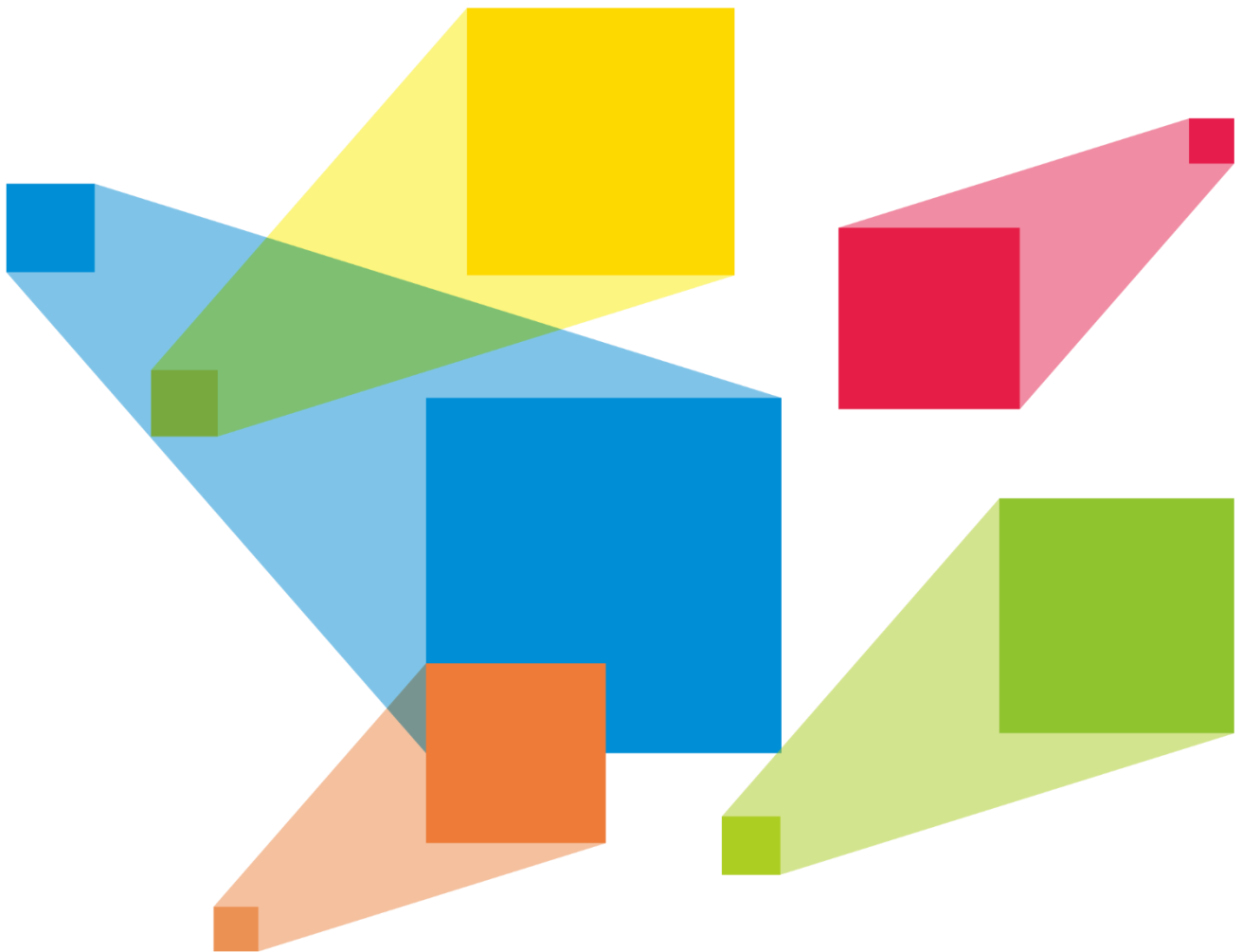
Specifications

Change History

Document Version	Release Date	Description
V1.0.0	2023-05-30	First release

Introduction

The VX400s-N is NovaStar's new all-in-one controller that integrates video processing and video control into one box. It features 4 Ethernet ports. A VX400s-N unit can drive up to 2.3 million pixels, with the maximum output width and height both up to 3840 pixels.

The VX400s-N is capable of receiving a variety of video signals and processing high-resolution images. In addition, the device features stepless output scaling and chroma calibration and more, to present you with an excellent image display experience.

Thanks to its powerful video processing and sending capabilities and other outstanding features, the VX400s-N can be widely used applications such as rental, stage control systems and fin-pitch LED screens.

Certifications

None

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact NovaStar to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or NovaStar has the right to claim compensation

Features

- Input connectors
    - 1x HDMI 1.3 (IN & LOOP)
    - 1x HDMI 1.3
    - 1x 3G-SDI (IN & LOOP)
- Output connectors
    - 4x Gigabit Ethernet ports

        A single device unit drives up to 2.3 million pixels, with a maximum width of 3840 pixels and a maximum height of 3840 pixels.
- Audio input and output
    - Audio input accompanied with an HDMI input source
    - Audio output via a multifunction card
    - Output volume adjustment supported
- 2x layers
    - Adjustable layer size and position
    - Adjustable layer priority
- Output synchronization

    An internal input source can be used as the sync source to ensure the output images of all cascaded units in sync.
- Powerful video processing

    - Based on SuperView III image quality processing technologies to provide stepless output scaling
    - One-click full screen display
    - Free input cropping
- Easy preset saving and loading

    Up to 10 user-defined presets supported
- Multiple kinds of hot backup
    - Backup between devices
    - Backup between Ethernet ports
- Up to 4 units cascaded for image mosaic
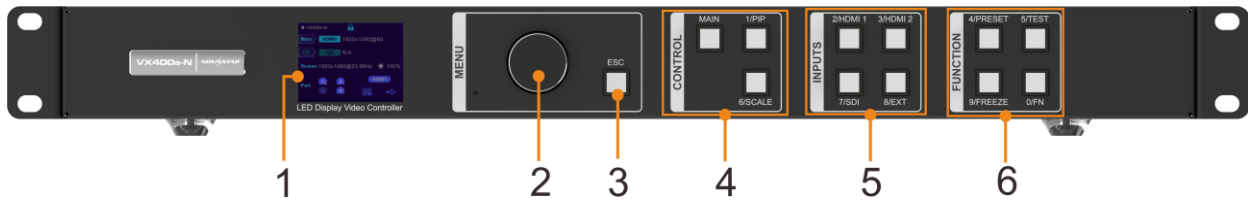- Output image quality management

    Brightness, saturation, contrast and hue adjustment
- Pixel level brightness and chroma calibration

    Working with NovaLCT and NovaStar calibration software to support brightness and chroma calibration on each LED, effectively removing color discrepancies and greatly improving LED display brightness and chroma consistency, allowing for better image quality.
- Multiple operation modes

    Control your device as you wish via NovaLCT or device front panel knob and buttons.

Appearance

Front Panel

No.	Area	Function
1	LCD screen	Display the device status, menus, submenus and messages.
2	Knob	• Rotate the knob to select a menu item or adjust the parameter value. • Press the knob to confirm the setting or operation.
3	ESC button	Exit the current menu or cancel an operation.
4	Control area	• MAIN/PIP: Open or close a layer, and show the layer status. – On (blue): The layer is opened. – Flashing (blue): The layer is being edited. – On (white): The layer is closed. • SCALE: A shortcut button for the full screen function. Press the button to make the layer of the lowest priority fill the entire screen. – On (blue): Full screen scaling is turned on. – On (white): Full screen scaling is turned off.
5	Input source buttons	Show the input source status and switch the layer input source. Status LEDs: • On (blue): An input source is accessed. • Flashing (blue): The input source is not accessed but used by the layer. • On (white): The input source is not accessed or the input source is abnormal.
6	Shortcut function buttons	• PRESET: Access the preset settings menu. • TEST: Access the test pattern menu. • FREEZE: Freeze the output image. • FN: A customizable button

Note:

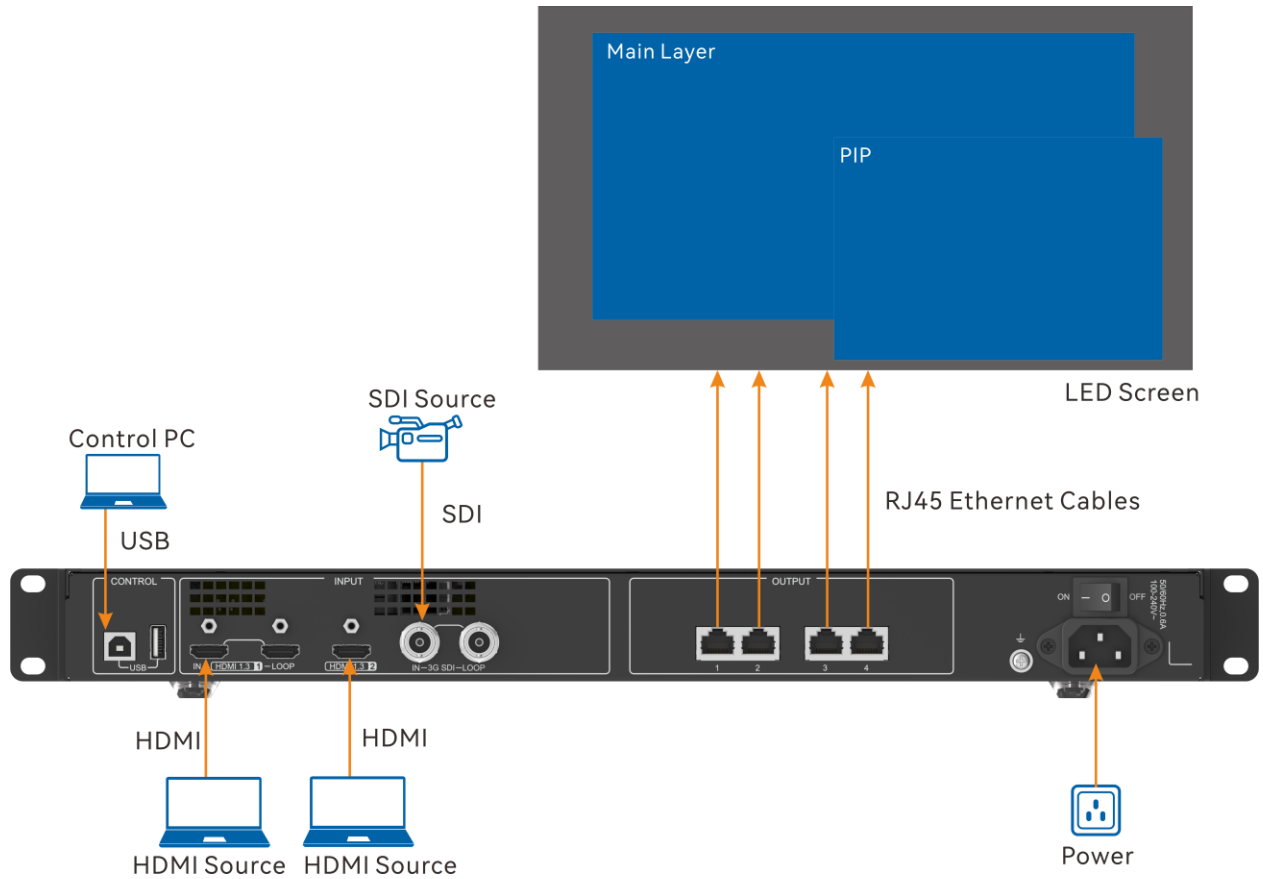Hold on the knob and **ESC** button simultaneously for 3s or longer to lock or unlock the front panel buttons.

Rear Panel
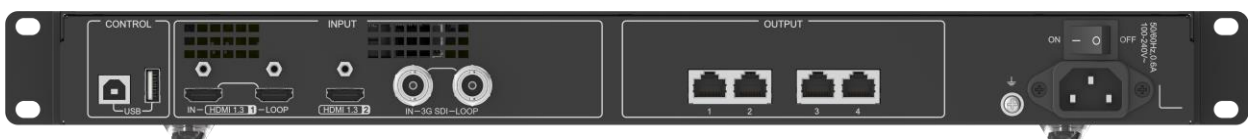
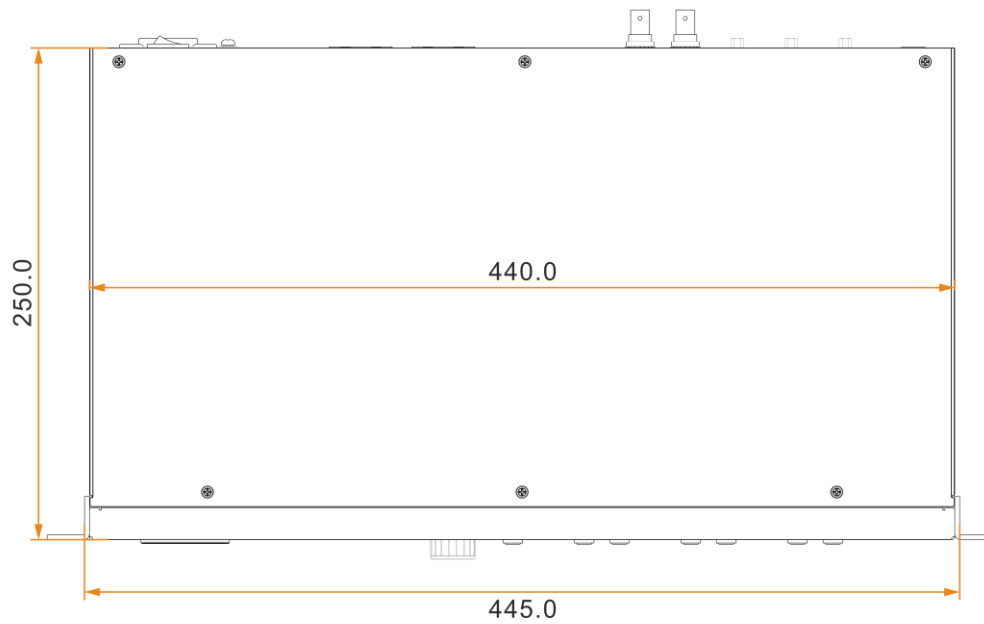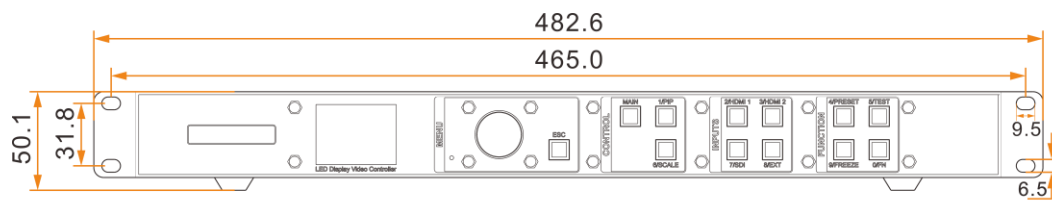| Input Connectors		
Connector	**Qty**	**Description**

3G-SDI	1	• ST-424 (3G), ST-292 (HD) and ST-259 (SD) standard video inputs supported • Max. input resolution: 1920×1080@60Hz • Deinterlacing processing supported • 3G-SDI loop output supported • Does Not support input resolution and bit depth settings. • Does Not support the signal source in Level B format.

HDMI 1.3	2	• Max. input resolution: 2K×1K@60Hz
		• HDCP 1.4 compliant
		• Does Not support deinterlacing processing.
		• Does Not support interlaced signal inputs.
		• Custom resolutions supported
		   − Max. width: 3840 (3840×600@60Hz)
		   − Max. height: 1920 (800×1920@60Hz)
		   − Force inputs supported: 800×3840@60Hz
		• Accompanied audio input supported
		• Loop output supported on HDMI 1.3-1

Output Connectors

Connector	Qty	Description

Ethernet ports	4	Gigabit Ethernet port
		• Max. loading capacity: 2.3 million pixels
		• Max. width: 3840 pixels
		• Max. height: 3840 pixels
		Only Ethernet port 1 supports audio output. When you use a multifunction card to parse the audio, be sure to connect the card to Ethernet port 1.
		Status LEDs:
		• The top left one (green) indicates the connection status.
		   − On: The port is well connected.
		   − Flashing: The port is not well connected, such as loose connection.
		   − Off: The port is not connected.
		• The top right one (yellow) indicates the communication status.
		   − On: The Ethernet cable is short-circuited.
		   − Flashing: The communication is good and data is being transmitted.
		   − Off: No data transmission

Control Connectors

Connector	Qty	Description

USB	2	• USB (Type-B):
		   − Connect to the control PC.
		   − Input connector for device cascading
		• USB (Type-A): Output connector for device cascading

Applications

Dimensions

Device

Tolerance: ±0.3   Unit: mm

Carton

Tolerance: ±5   Unit: mm

Specifications

Electrical Parameters	Power connector	100-240V~, 0.6A, 50/60Hz
	Rated power consumption	【TBD】
Operating Environment	Temperature	-20℃ to +60℃
	Humidity	0% RH to 80% RH, non-condensing
Storage Environment	Temperature	-20℃ to +70℃
	Humidity	0% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm × 250 mm × 50.1 mm
	Net weight	【TBD】
Packing Information	Accessories	1x Power cord 1x USB cable 1x HDMI cable 1x Certificate of Approval 1x Safety Manual
	Packing size	【TBD】
	Gross weight	【TBD】
Noise Level (typical at 25°C/77°F)		45 dB (A)

Video Source Features

Input Connectors	Bit Depth		Max. Input Resolution
• HDMI 1.3	8bit	RGB4:4:4	1920×1200@60Hz (Standard) 3840×600@60Hz (Custom) 800×3840@60Hz (Forced)
		YCbCr4:4:4	
		YCbCr4:2:2	
		YCbCr4:2:0	Not supported
	10bit / 12bit		Not su[pported
3G-SDI	• Max. input resolution: 1920×1080@60Hz • Does Not support input resolution and bit depth settings. • Supports ST-424 (3G), ST-292 (HD) and ST-259 (SD) standard video inputs.		

Statement

Thank you for choosing NovaStar's product. This document is intended to help you understand and use the product. For accuracy and reliability, NovaStar may make improvements and/or changes to this document at any time and without notice. If you experience any problems in use or have any suggestions, please contact us via the contact information given in this document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

Official website
www.novastar.tech

Technical support
support@novastar.tech