NOVASTAR

Specifications
LED Display Video Controller VX400s

Rev1.4.0   NS160100411

Overview

The VX400s is a NovaStar professional LED display video controller, featuring excellent display control and powerful front-end video processing capabilities. With outstanding image quality and flexible image control functions, the VX400s can greatly satisfy the user needs in media industry.
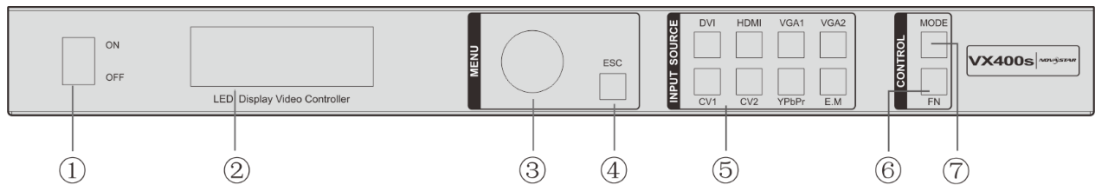
Features

1) Provides a variety of video input connectors, including 2 × CVBS, 2 × VGA, 1 × SDI, 1 × DVI, 1 × HDMI and 1 × YPbPr.
   Input resolutions of some connectors can be up to 1080p@60Hz.
   You can freely scale the image based on the screen resolution.
2) Computer software for system configuration is not necessary. The system can be configured using one knob and one button. All can be done just by fingers. That's what we called Touch Track.
3) Powerful image processing, professional image control and user-friendly UI design, allowing for an easy and convenient display control experience.
4) Adopts an innovative architecture to implement smart configuration, allowing for the screen debugging to be completed within several minutes, which greatly shorten the preparation time on the stage.
5) Provides seamless high-speed switch and fade-in/fade-out effect so as to strengthen and display picture demonstration of professional quality.
6) The position and size of PIP can both be adjusted, which can be controlled at will.
7) Visualized LCD screen and distinct button indicators simplifies system control operations.
8) Adopts NovaStar G4 engine to realize a perfect display image with no flickering or scanning lines, as well as fine quality and good sense of depth.
9) Adopts NovaStar new-generation calibration technology, allowing for a fast and efficient calibration process.
10) Implements white balance calibration and color gamut mapping based on different features of the LEDs used by different screens to ensure colors are faithfully reproduced.
11) Supports HDMI/DVI video input and HDMI audio input.

12) Supports high bit depth video input: 10bit/8bit.

13) Video output loading capacity is 2.3 million pixels and supported video formats are RGB, YCbCr4:2:2 and YCbCr4:4:4.
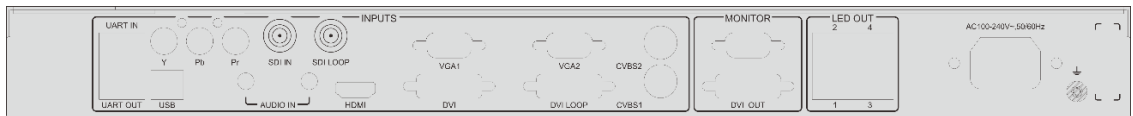
Appearance

Front Panel

①: Power button

②: Operation screen

1) Row 1: Main layer1, signal source and resolution
2) Row 2: PIP 2, signal source and resolution
3) Row 3: Screen width, height and brightness
4) Row 4: Status bar
   The icon descriptions are as below.

Primary: The device is set as primary.
Backup: The device is set as backup.

: Pixel to pixel
: Scale down
: Scale up

: PIP off
: PIP on

: Image mosaic off
: Image mosaic on

: Output port (Ethernet port 2 is used for output)

: All the buttons and knob are locked.

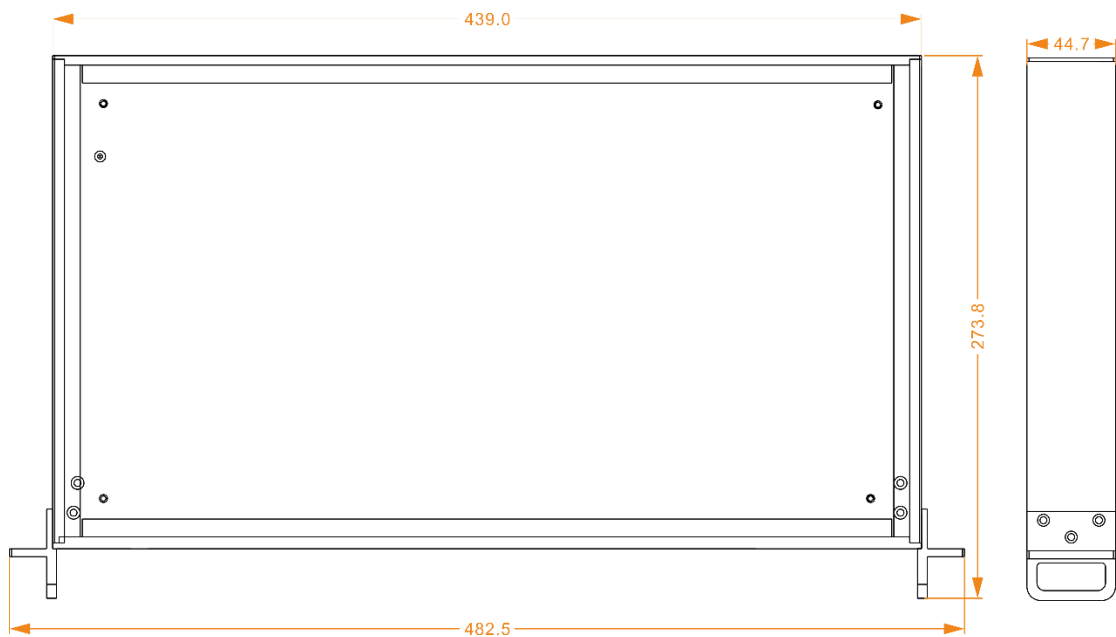| ③: Knob |
| --- |
| Press the knob to enter the operation menu screen.
Rotate the knob to select a menu item or adjust a parameter. |
| ④: ESC button |
| Press the button to exit the current menu or cancel the operation. |
| ⑤: 8 input source buttons |
| Press the button to set the input source of main layer. Hold down the button to set the input source of PIP. The setting result can be viewed on the operation screen.
In the above figure, the input source of main layer is VGA1 and the input source of PIP is HDMI. |
| ⑥: Fn button for entering the related menu screen |
| ⑦: Shortcut button for loading preset |

Rear Panel

Note: To improve user experience, the connector layout may be adjusted. Product images in this document are for reference only.

Input	
Audio In	1 × Audio input connector
HDMI	HDMI input connector
YPbPr	YPbPr input connector
SDI	3G-SDI input connector De-interlacing supported
DVI	DVI input connector
VGA1–VGA2	VGA input connector
CVBS1	PAL/NTSC-compliant composite video input
CVBS2	PAL/NTSC-compliant composite video input
Output	
SDI LOOP	SDI loop output connector
DVI LOOP	DVI loop output connector
Monitor -VGA OUT	VGA monitoring connector
Monitor -DVI OUT	DVI monitoring connector
LED Out 1, 2, 3, 4	4 Gigabit Ethernet output connectors. Only Ethernet port 1 supports audio output. When the multifunction card is connected for audio decoding, the multifunction card must be

	connected to the Ethernet port 1.
Control	
UART IN	Used as input for device cascading
UART OUT	Used as output for device cascading
USB	For communication with PC
Power	
AC 100-240V~50/60Hz	AC power connector

Dimensions

Specifications

Input		
Connector	**Qty**	**Description**
CVBS	2	PAL/NTSC
VGA	2	VESA standard Resolution up to 1080p@60Hz
SDI	1	480i, 576i, 720P, 1080i/P
DVI	1	VESA standard (1080i input supported） HDCP compliant
HDMI	1	EIA/CEA-861 standard, HDMI 1.3 standard compliant HDCP compliant
YPbPr	1	Resolution up to 1080p@60Hz

Overall	
Power connector	AC 100-240V–50/60Hz
Overall consumption	35 W
Operating temperature	-20°C–60°C
Dimensions	482.5 mm × 273.8 mm × 44.7 mm
Weight	2.55 kg

Appendix

Conflict List for PIP Input Source

		Input Source of Main Layer							
		HDMI	DVI	SDI	VGA1	VGA2	CVBS1	CVBS2	YPbPr
PIP Input Source	HDMI	-	×	√	√	√	√	√	√
	DVI	×	-	√	√	√	√	√	√
	SDI	√	√	-	√	√	√	√	√
	VGA1	√	√	√	-	×	√	√	√
	VGA2	√	√	√	×	-	√	√	√
	CVBS1	√	√	√	√	√	-	×	√
	CVBS2	√	√	√	√	√	×	-	√
	YPbPr	√	√	√	√	√	√	√	-

- √: Main layer and PIP can use the input source simultaneously.
- ×: Main layer and PIP cannot use the input source simultaneously.
- -: Main layer and PIP use the same input source.