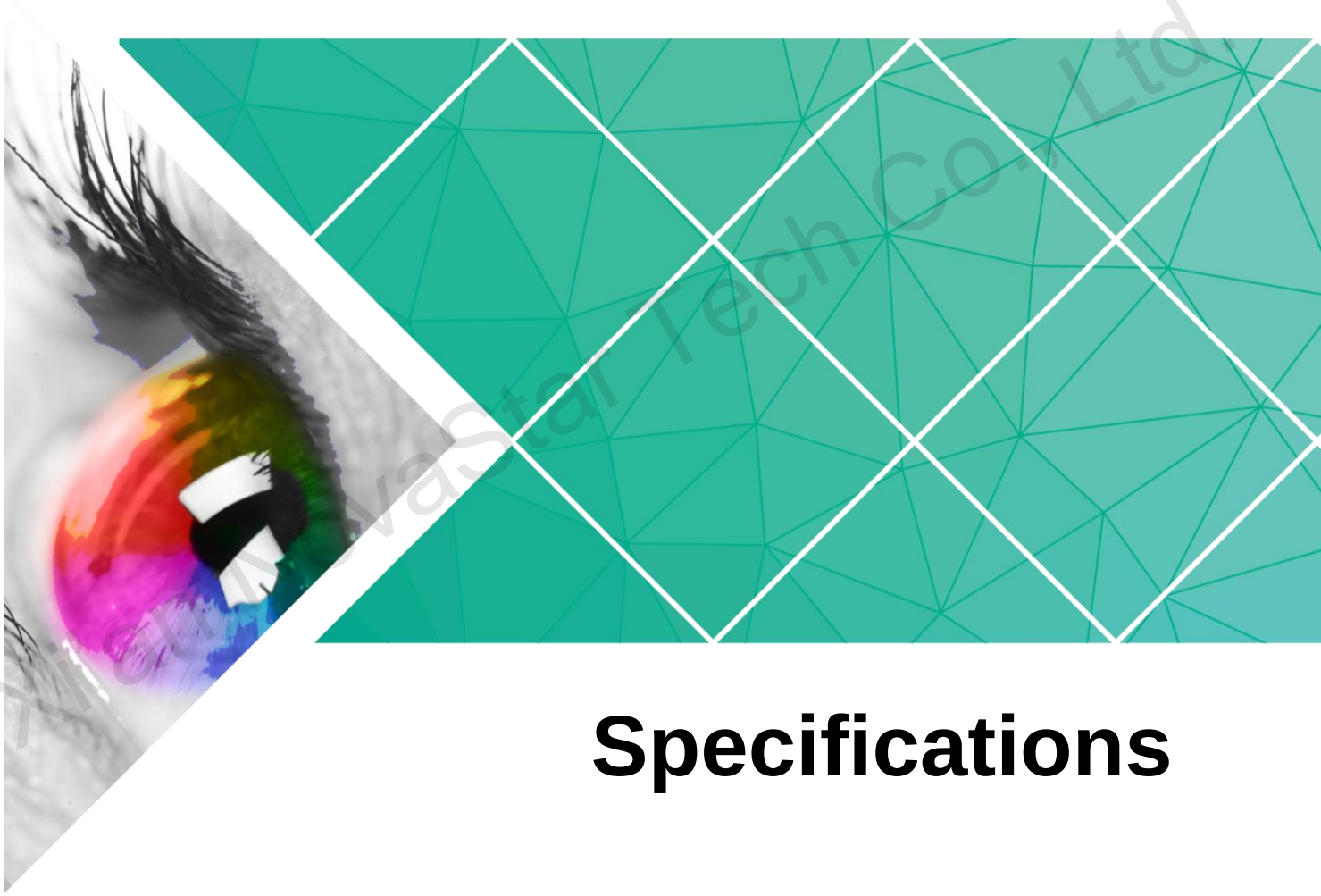
N9

Multi-Screen Splicing Video Processor



Specifications

Xi'an NovaStar Tech Co., Ltd

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Website: www.novastar.tech

1 Overview

The N9 is a high-performance multi-screen splicing video processor independently developed by NovaStar. Using high-performance video processing technologies, it is capable of processing and outputting ultra-high quality images. The N9 also provides powerful video signal receiving capability. It can support 9 inputs and 4 DVI outputs at the same time. A single N9 can load up to an 8KK screen, and multiple N9 units can be cascaded for output.

The N9 can work with NovaStar's desktop console C1 and make the operation of N9 on stage more convenient. It is also equipped with brand-new smart management software V-Can from NovaStar to provide richer image mosaic effects.

Thanks to the powerful capabilities of receiving and processing a variety of video signals, the N9 can be widely used in various scenarios, such as intermediate and high-end rental, stage control, media centers, big conference sites, exhibition sites and concert control centers.

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2 Features

- Up to 9 inputs, including 1 × dual-link DP 1.1 (can be replaced by HDMI 1.4, DP 1.1 or dual-link DVI), 2 × HDMI 1.3 (can be replaced by DVI/VGA/CVBS), 4 × DVI, 1 × DP 1.2 and 1 × 3G-SDI.
- Up to 7 layers supported at the same time. Max. resolution of each layer: 3840×2160, 7680×1080 or 1920×4320.
- Customized BKG settings
  You can load an image file from the control computer or capture an input source image displayed on the screen as the BKG image.
- Shaped layer, layer mask and color keying supported
- Layer cloning and Z-order layer sorting supported
- Input source image cropping supported
- Quick mosaic and custom mosaic
- EDID management supported
  Supports custom EDID and standard EDID.
- 4 × DVI mosaic output, 4 × DVI backup output, 1 × HDMI preview output, and 2 × Aux output
- Output resolution settable. The mosaic width of 4 outputs can be up to 15360x600.
- 4 × single-link mosaic output, or 2 × dual-link mosaic output
- Input, PVW, PGM and prompter monitoring supported by MVR connector
- Layer position and size adjustable

  Layers can be added with borders of custom widths and colors.
- 32 presets

  A total of 32 user presets can be created and saved as templates which can be used directly and conveniently.
- Intuitive color LCD screen and clear button indicator prompt on the front panel, simplifying system control and operation.
- Genlock synchronization and synchronization with any input source supported, achieving output vertical synchronization.

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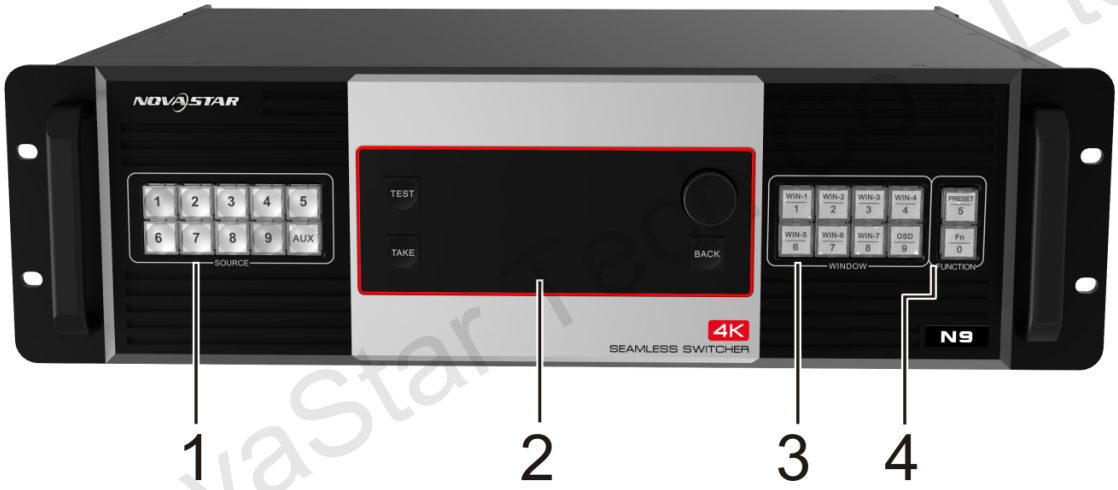
3 Appearance

Front Panel



No.	Button	Function
1	Input source buttons	Indicate input source status. • On, dark: Signal source is accessed but not in use. • On, bright: Signal source is accessed and in use. • Off: No signal source is accessed or the accessed source is abnormal.
2	LCD screen	Display the current device status and settings menu.
	Knob	• On the home screen, press the knob to enter the operation menu screen. • On the operation menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu. • When a menu item with parameters is selected, you can rotate the knob to adjust the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment.
	BACK	Press the button to exit the current menu or operation.

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No.	Button	Function
	button	
	TAKE button	Switch PVW to PGM.
	TEST button	Enter the test patterns menu.
3	Layer shortcut buttons	Press a button to enter the corresponding layer property menu for quick settings. • On: Layer is open. • Flashing: Property menu of the corresponding layer is opened and being edited. • Off: Layer is closed. • On the home screen, hold down a layer button to close the layer. • BKG: Open or close the BKG.
4	Preset button	Press it to enter the preset menu. A total of 32 presets can be loaded, saved and deleted, etc.
	Fn button	A custom function button

Rear Panel

Input	
INPUT-1	Dual-link DP 1.1 input, 3840×1080@60Hz and downward compatible This connector can be replaced by an HDMI 1.4, DP 1.1 or dual link DVI connector based on user requirement.
INPUT-2	HDMI 1.3, 1920x1080@60Hz and downward compatible This connector can be replaced by DVI, VGA or CVBS connector based on user requirement to accept different video sources.
INPUT-3	
INPUT-4	DVI1–DVI4, VESA standard compliant, 1920x1080@60Hz and downward compatible
INPUT-5	
INPUT-6	
INPUT-7	

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INPUT-8	DP 1.2, 3840x2160@60Hz and downward compatible
	DP1.2 LOOP
INPUT-9	3G-SDI, 1920x1080@60Hz and downward compatible
	SDI LOOP
Output	
HDMI	HDMI output connector, capable of monitoring 9 input sources, PVW and PGM.
DVI1-DL/PGM1	DVI1 output If the output mode is set to dual link, this connector is DuallinkOut1.
DVI2/PGM2	DVI2 output If the output mode is set to dual link, this connector is invalid.
DVI3-DL/PVW1	DVI3 output If the output mode is set to dual link, this connector is DuallinkOut2.
DVI4/PVW2	DVI4 output If the output mode is set to dual link, this connector is invalid.
HDMI1/HDMI2	2 Aux output connectors
Control	
ETHERNET (RJ45)	A control connector
USB USB (Type-B)	For the connection with control computer
USB USB (Type-A)	For cascading N9 units
IN–Genlock–LOOP	For synchronizing cascaded devices

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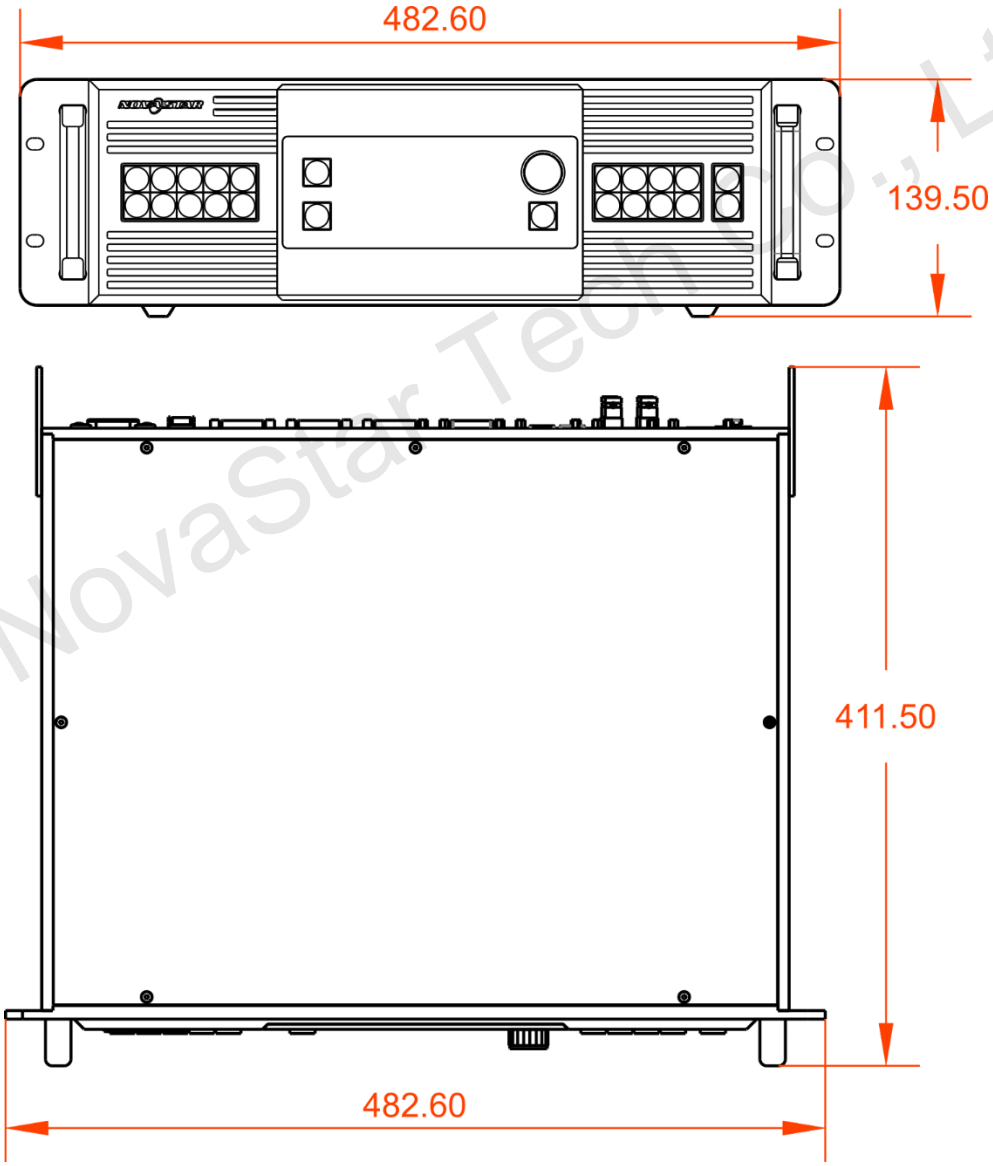
4 Dimensions



Unit: mm

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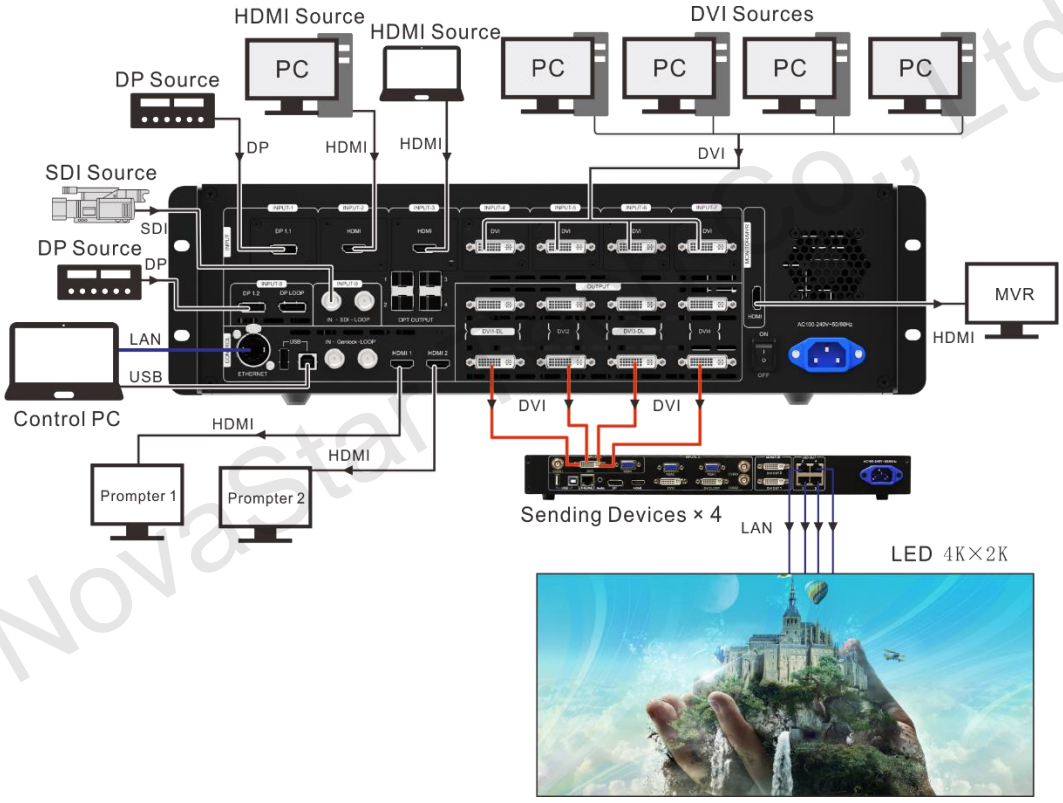
5 Applications



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6 Specifications

Connector Specifications	
Connector	**Resolution**
DP 1.1	800x600@24/25/30/48/50/60/72/85/100/120Hz 1024X768@24/25/30/48/50/60/72/85/100/120Hz 1280X720@24/25/30/48/50/60/72/85/100/120Hz 1280x768@24/25/30/48/50/60/72/85/100/120Hz 1280X800@24/25/30/48/50/60/72/85/100/120Hz 1280X1024@24/25/30/48/50/60/72/85/100/120Hz 1366X768@24/25/30/48/50/60/72/85/100/120Hz 1440X900@24/25/30/48/50/60/72/85/100/120Hz 1600X1200@24/25/30/48/50/60/72/85/100/120Hz 1680X1050@24/25/30/48/50/60/72/85/100/120Hz 1920X1080@24/25/30/48/50/60/72/85/100/120Hz 1920x1200@24/25/30/48/50/60/72/85/100Hz 1920×2160@24/25/30/48/50/60Hz 2048×640@24/25/30/48/50/60/72/85/100/120Hz 2048×1152@24/25/30/48/50/60/72/85/100Hz 2048×1536@24/25/30/48/50/60/72/85Hz 2304×1125@24/25/30/48/50/60/72/85/100Hz 2560×816@24/25/30/48/50/60/72/85/100/120Hz 2560×960@24/25/30/48/50/60/72/85/100Hz 2560×1600@24/25/30/48/50/60Hz 3840x1080@24/25/30/48/50/60Hz 3840x2160@24/25/30Hz
DP 1.2	800x600@24/25/30/48/50/60/72/85/100/120Hz 1024X768@24/25/30/48/50/60/72/85/100/120Hz 1280X720@24/25/30/48/50/60/72/85/100/120Hz 1280x768@24/25/30/48/50/60/72/85/100/120Hz 1280X800@24/25/30/48/50/60/72/85/100/120Hz

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	1280X1024@24/25/30/48/50/60/72/85/100/120Hz 1440X900@24/25/30/48/50/60/72/85/100/120Hz 1600X1200@24/25/30/48/50/60/72/85/100/120Hz 1680X1050@24/25/30/48/50/60/72/85/100/120Hz 1920X1080@24/25/30/48/50/60/72/85/100/120Hz 1920x1200@24/25/30/48/50/60/72/85/100/120Hz 1920×2160@24/25/30/48/50/60/72/85/100/120Hz 2048×640@24/25/30/48/50/60/72/85/100/120Hz 2048×1152@24/25/30/48/50/60/72/85/100/120Hz 2048×1536@24/25/30/48/50/60/72/85/100/120Hz 2304×1152@24/25/30/48/50/60/72/85/100/120Hz 2560×816@24/25/30/48/50/60/72/85/100/120Hz 2560×960@24/25/30/48/50/60/72/85/100/120Hz 2560×1600@24/25/30/48/50/60/72/85/100/120Hz 3840×1080@24/25/30/48/50/60/72/85/100/120Hz 3840×2160@24/25/30/48/50/60Hz
HDMI	800x600@24/25/30/48/50/60/72/85/100/120Hz 1024X768@24/25/30/48/50/60/72/85/100/120Hz 1280X720@24/25/30/48/50/60/72/85/100/120Hz 1280x768@24/25/30/48/50/60/72/85/100/120Hz 1280X800@24/25/30/48/50/60/72/85/100/120Hz 1280X1024@24/25/30/48/50/60/72/85Hz 1366X768@24/25/30/48/50/60/72/85/100/120Hz 1440X900@24/25/30/48/50/60/72/85/100Hz 1600X1200@24/25/30/48/50/60Hz 1680X1050@24/25/30/48/50/60/72Hz 1920X1080@24/25/30/48/50/60Hz
DVI	800x600@24/25/30/48/50/60/72/85/100/120Hz 1024X768@24/25/30/48/50/60/72/85/100/120Hz 1280X720@24/25/30/48/50/60/72/85/100/120Hz 1280x768@24/25/30/48/50/60/72/85/100/120Hz 1280X800@24/25/30/48/50/60/72/85/100/120Hz 1280X1024@24/25/30/48/50/60/72/85Hz 1366X768@24/25/30/48/50/60/72/85/100/120Hz 1440X900@24/25/30/48/50/60/72/85/100Hz 1600X1200@24/25/30/48/50/60Hz 1680X1050@24/25/30/48/50/60/72Hz 1920X1080@24/25/30/48/50/60Hz
SDI	3G-SDI 800×600@60Hz, 1024×768@60Hz, 1280×720@60Hz, 1280×768@60Hz, 1280×800@60Hz, 1280×1024@60Hz,

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	1366×768@60Hz, 1440×900@60Hz, 1600×900@60Hz, 1680×1050@60Hz, 1600×1200@60Hz, 1680×1050@60Hz, 1920×1080@60Hz
Overall Specifications	
Connector	**Description**
Power connector	AC 100 V–240 V 50/60 Hz
Operating temperature	0°C–60°C
Dimensions	3U standard chassis 482.6 mm × 139.5 mm × 411.5 mm
Power consumption	
Weight	

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