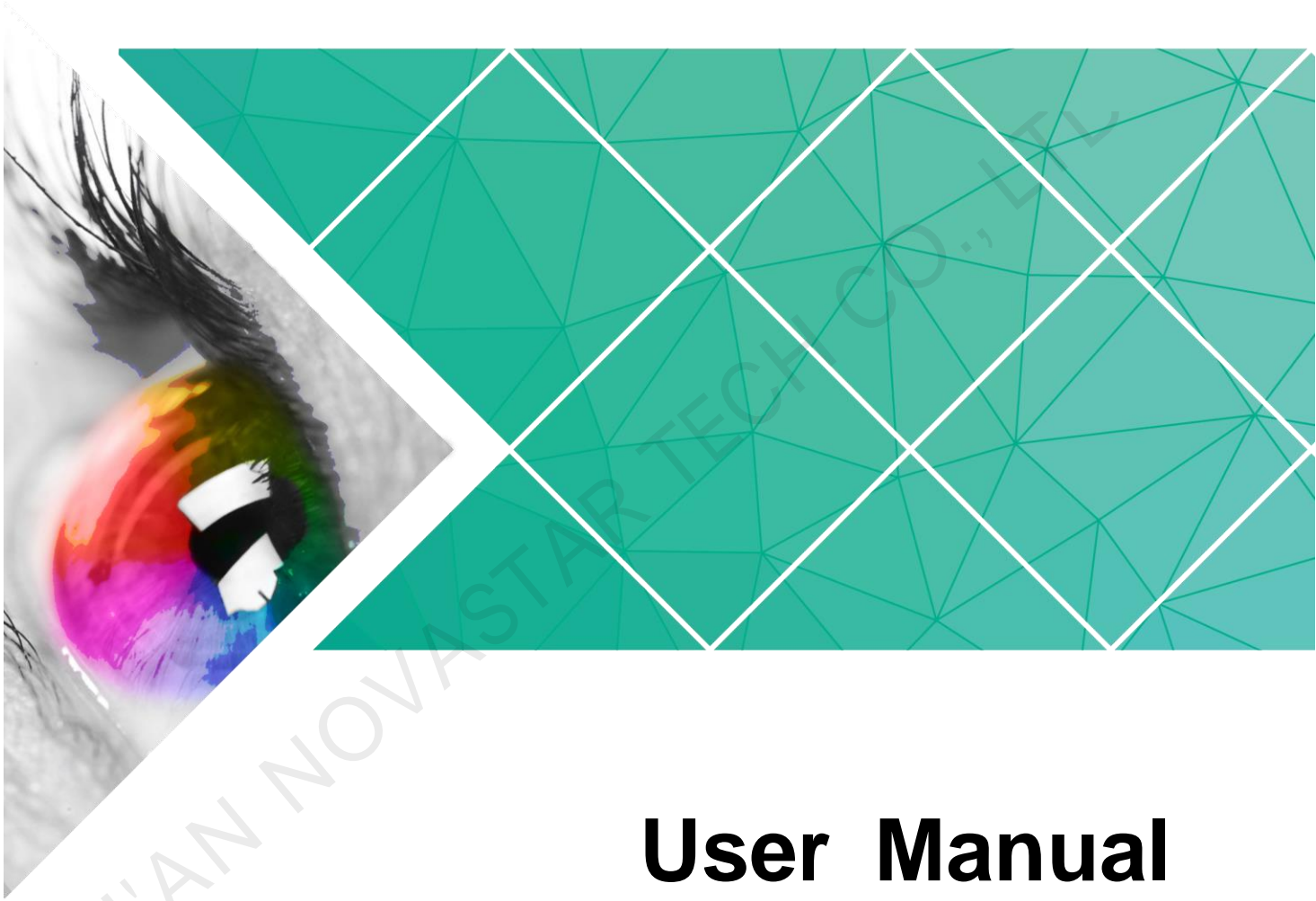


4K UHD 1×4

Video Distributor



User Manual

Document Version: V1.0.0

Document Number: NS110100697

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XI'AN NOVASTAR TECH CO., LTD.

Change History

Version	Release Date	Description
V1.0.0	2019-01-15	First release

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1 Overview

The 4K UHD 1x4 is a 4K video distributor with outstanding performance, excellent stability and high definition.

This distributor supports 1 × HDMI 2.0 input and 4 × HDMI 2.0 real-time outputs. The resolutions of both its input and outputs can be up to 4096×2160@60Hz. The input and output resolutions are the same.

This distributor is easy to use and supports plug and play. It is applicable to any devices with HDMI connectors and supports various set top boxes, DVD players, player boxes and so on.



2 Features

- Supports input and output resolutions up to 4096x2160@60Hz and downward compatibility.
- Input and output of ultra HD 4K signals are in sync.
- Supports 3D video source input.
- Supports input of RGB 4:4:4/YCbCr 4:4:4 10-bit video sources.
- OLED display can display the input and output statuses in real time.
- Supports three EDID setting methods: standard, custom and EDID learning.
- Supports encrypted video transmission.
- Supports plug and play of both input and output, with no drivers required.
- Adopts metal heatsink design.
- Supports program update using a USB drive.
- Passed RoHS certification.

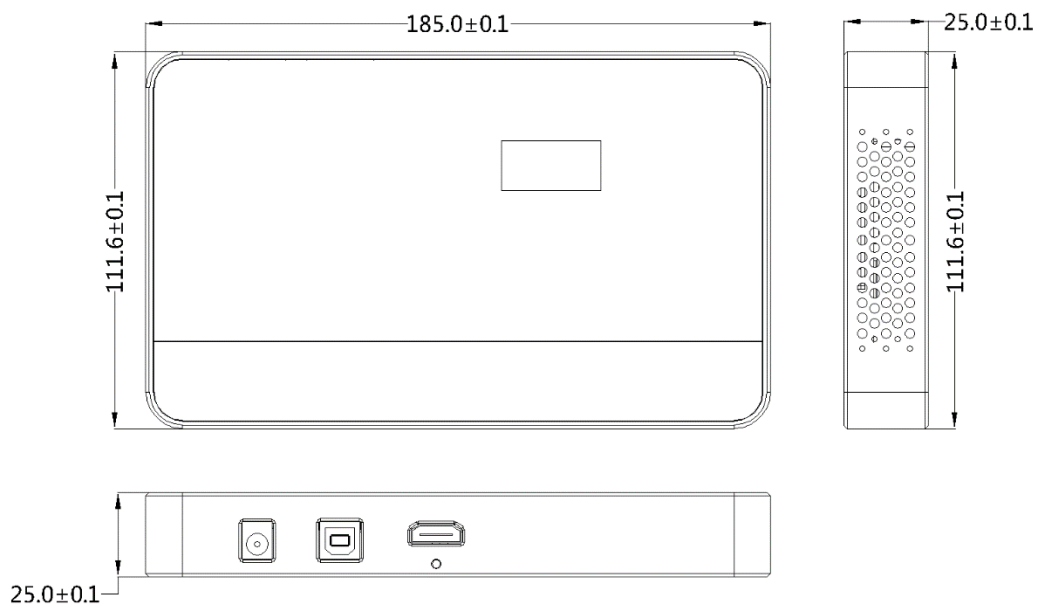
3 Appearance



Type	Name	Description
Input	HDMI INPUT	<ul style="list-style-type: none">• HDMI 2.0 connector supports HDCP 2.2 and HDCP 1.4.• Supported standard resolutions: 1024x768@(30/48/50/56/60/72/75/85)Hz 1280x720@(24/25/30/48/50/56/60/72/75/85)Hz 1280x1024@(24/25/30/48/50/56/60/72/75/85)Hz 1366x768@(24/25/30/48/50/56/60/72/75/85)Hz 1440x900@(24/25/30/48/50/56/60/72/75/85)Hz 1536x768@(24/25/30/48/50/56/60/72/75/85)Hz 1600x1200@(24/25/30/48/50/56/60/72/75/85)Hz 1920x1080@(24/25/30/48/50/56/60/72/75/85)Hz 1920x1200@(24/25/30/48/50/56/60/72/75/85)Hz 2048x1080@(24/25/30/48/50/56/60/72/75/85)Hz 2560x1080@(24/25/30/48/50/56/60/72/75/85)Hz 2560x1600@(24/25/30/48/50/56/60/72/75/85)Hz 3840x1080@(24/25/30/48/50/56/60/72/75/85)Hz 3840x2160@(24/25/30/48/50/56/60)Hz

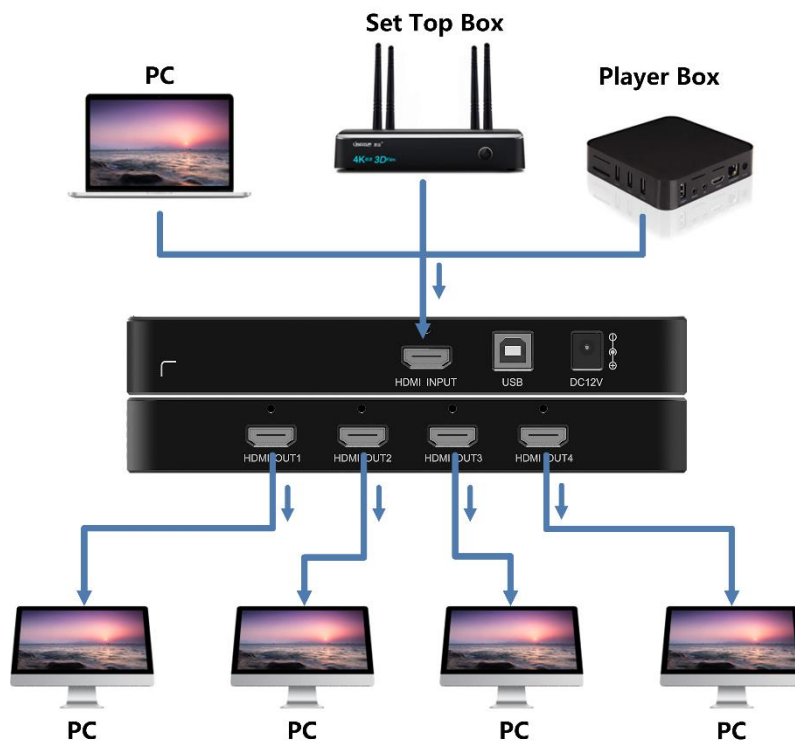
Output	HDMI OUT1 HDMI OUT2 HDMI OUT3 HDMI OUT4	<ul style="list-style-type: none"> • HDMI 2.0 connector supports HDCP 2.2 and HDCP 1.4. • Supported standard resolutions: 1024x768@(30/48/50/56/60/72/75/85)Hz 1280x720@(24/25/30/48/50/56/60/72/75/85)Hz 1280x1024@(24/25/30/48/50/56/60/72/75/85)Hz 1366x768@(24/25/30/48/50/56/60/72/75/85)Hz 1440x900@(24/25/30/48/50/56/60/72/75/85)Hz 1536x768@(24/25/30/48/50/56/60/72/75/85)Hz 1600x1200@(24/25/30/48/50/56/60/72/75/85)Hz 1920x1080@(24/25/30/48/50/56/60/72/75/85)Hz 1920x1200@(24/25/30/48/50/56/60/72/75/85)Hz 2048x1080@(24/25/30/48/50/56/60/72/75/85)Hz 2560x1080@(24/25/30/48/50/56/60/72/75/85)Hz 2560x1600@(24/25/30/48/50/56/60/72/75/85)Hz 3840x1080@(24/25/30/48/50/56/60/72/75/85)Hz 3840x2160@(24/25/30/48/50/56/60)Hz
Button	OLED display	Display the current device status and menu items.
	ENTER	Enter the menu or confirm the operation.
	BACK	Exit the current operation.
		Move the cursor up.
		Move the cursor down.
Control	USB	Connect to the control computer for program update.
Power	DC12V	DC 12 V

4 Dimensions





Unit: mm

5 Applications

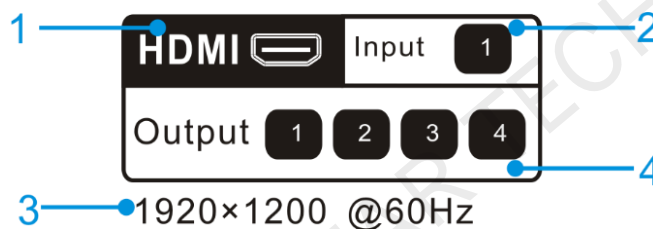


6 Operations

6.1 Button Descriptions

- Enter: Enter the menu and confirms the operation
- Back: Exit the current operation
- : Move the cursor up
- : Move the cursor down

6.2 Home Screen



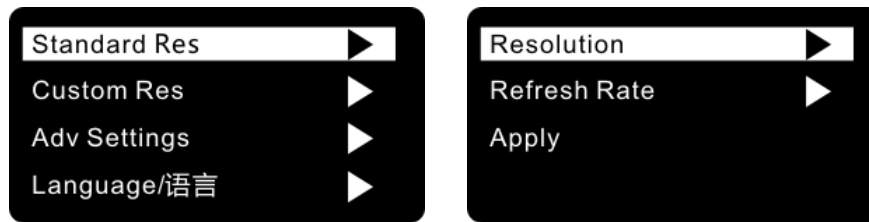
No.	Description
1	Connector type
2	Indicate the status of the input connector.
3	Display the input resolution.
4	Indicate the statuses of the four output connectors.

6.3 Menu Operations

You can change the input source resolution using the standard and custom resolution menus. When you have completed all the settings, move the cursor to **Apply** and press **ENTER** to apply the settings.

Standard Resolution

Select a standard resolution and refresh rate to set the input resolution.



Step 1 Press **ENTER** to enter the main menu.

Step 2 Select **Standard Res** and press **ENTER** to enter the submenu.

Step 3 Select a resolution and refresh rate. Select **Apply** and press **ENTER**.

Supported standard resolutions:

1024x768@(30/48/50/56/60/72/75/85)Hz

1280x720@(24/25/30/48/50/56/60/72/75/85)Hz

1280x1024@(24/25/30/48/50/56/60/72/75/85)Hz

1366x768@(24/25/30/48/50/56/60/72/75/85)Hz

1440x900@(24/25/30/48/50/56/60/72/75/85)Hz

1536x768@(24/25/30/48/50/56/60/72/75/85)Hz

1600x1200@(24/25/30/48/50/56/60/72/75/85)Hz

1920x1080@(24/25/30/48/50/56/60/72/75/85)Hz

1920x1200@(24/25/30/48/50/56/60/72/75/85)Hz

2048x1080@(24/25/30/48/50/56/60/72/75/85)Hz

2560x1080@(24/25/30/48/50/56/60/72/75/85)Hz

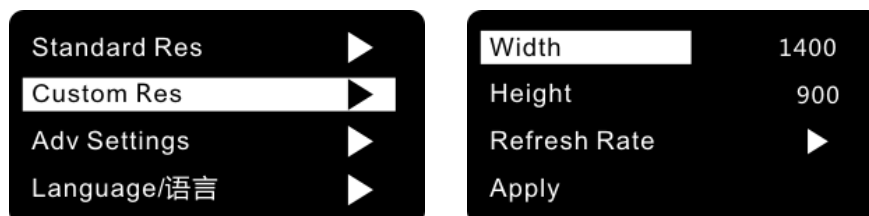
2560x1600@(24/25/30/48/50/56/60/72/75/85)Hz

3840x1080@(24/25/30/48/50/56/60/72/75/85)Hz

3840x2160@(24/25/30/48/50/56/60)Hz

Custom Resolution

Set a custom width, height and refresh rate for the LED screen. The maximum supported custom resolution is 3840x2160@60Hz.



Step 1 Press **ENTER** to enter the main menu.

Step 2 Select **Custom Res** and press **ENTER** to enter the submenu.

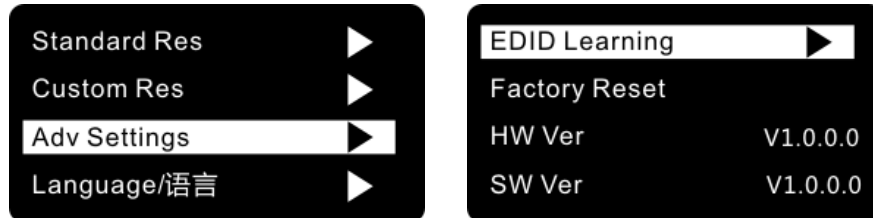
Step 3 Set the width, height and refresh rate. Select **Apply** and press **ENTER**.

Note:

The stepping of width is 2 and the stepping of height is 1.

Advanced Settings

Advanced settings include **EDID Learning**, **Factory Reset**, **HW Ver** and **SW Ver**.



- **EDID Learning:** Automatically obtain resolution of the output device and send the resolution to the input device. Process the input resolution for self-adaptation.
- **Factory Reset:** Reset the device parameters to factory settings and reset the UI language to English.
- **HW Ver:** Check the version of the PCB board.
- **SW Ver:** Check the version of the software.

Language/语言

The supported languages are English and Chinese. You can change either language as required.



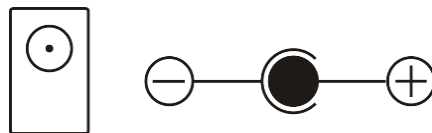
7 Specifications

Electrical Parameters	Input voltage	DC 12 V
	Rated power consumption	8.4 W
Operating Environment	Temperature	0°C–50°C
	Humidity	10% RH–90% RH non-condensing
Storage Environment	Temperature	-10°C–60°C
Dimensions	185.0 mm × 111.6 mm × 25.0 mm	
Material	Metal	
Net Weight	461.8 g	

Note:

- The data is tested by NovaStar lab. The test data may differ due to the influence of environment and cable material, and the actual working environment shall prevail.
- Video cable used in lab test: 28AWG core
- The positive and negative terminals of the power supply are as follows.

Figure 7-1 Positive and negative terminals of power supply



8 Troubleshooting

Problem	Solution
No image output	<ol style="list-style-type: none">1. Check whether the hardware devices are properly connected.<ul style="list-style-type: none">• No: Connect the hardware devices.• Yes: Go to 2.2. Check whether there are HDMI video input and output.<ul style="list-style-type: none">• No: Connect HDMI cable again.• Yes: Go to 3.3. Check whether the resolution of HDMI video source is within the supported resolution range.<ul style="list-style-type: none">• No: Set the resolution of the HDMI video source again.• Yes: Go to 4.4. Check whether there is power input.<ul style="list-style-type: none">• No: Disconnect and then reconnect the power cord.• Yes: No further actions required.
No HDR effect on output image	<ol style="list-style-type: none">1. Check whether the input source supports HDR.<ul style="list-style-type: none">• No: Connect an input source that supports HDR.• Yes: Go to 2.2. Check whether the HDR function of input source is enabled.<ul style="list-style-type: none">• No: Enable HDR.• Yes: No further actions required.