



KLS24c Specification

2-in-1 Video Processor



Version: v2.0

Release Date: June 2025

Revision History

| Serial Number | Brief description of the revised content | Revision Date | Revisionist |
|------------------|---|---------------|-------------|
| 1 | Initial issuance | 2025/04/17 | |
| 2 | Organize and update document format | 2025/06/13 | |

Safety Instructions

This chapter provides safety instructions for the 2-in-1 controller KLS24c to ensure product safety during storage, transportation, installation, and use.

Safety instructions apply to all persons who come into contact with and use the product.

First, please note the following points

- Please read all instructions.
- Please retain all instructions.
- Please follow all instructions.

Storage and transportation safety

- Please pay attention to dust and water protection.
- Please avoid prolonged direct sunlight.
- Keep away from heat and fire sources.
- Do not place in an explosive gas environment.
- Do not place it in a strong electromagnetic environment.
- Please place the product in a stable location to prevent it from falling and causing damage to the product or personal injury.
- Please save the box and packaging materials. They can be used when storing and transporting the product. For maximum protection of the device,
- Please repack the product in its original factory packaging.

Safe installation and use

- Only trained professionals can install the product.
- Do not plug or unplug while power is on.
- Please ensure that the box is safely grounded.
- Please wear an anti-static wrist guard and insulating gloves.
- Do not install the product in an environment with frequent or strong vibrations.
- Please dust regularly.
- Please do not repair the product without authorization. You can contact after-sales at any time.
- Please use the same product for spare parts replacement

Overview

Kystar KLS24c 2-in-1 controller supports 6- channel digital signal input, has 24 network port outputs, and a maximum load capacity of 15.6 million pixels. It adopts a pure hardware FPGA architecture and can run continuously 365×24 hours a day, meeting the configuration requirements of large-screen control systems for small-pitch applications.

Certification Information

CQC

Our company as soon as possible to confirm or handle it. Otherwise, if it causes relevant legal risks, the customer shall bear them by himself or our company shall have the right to claim compensation

Features

- The single machine has 24 network ports, each port can load 650,000 pixels, and the maximum load of the whole machine is 15.6 million pixels. The width can reach 24,540 points and the height can reach 15,360 points.
- Supports multiple digital signal interfaces, including 4 -way HDMI1.3 , 1- way HDMI2.0 and 1-way DP1.2 input sources.
- When the load height does not exceed 7680, it supports 8 -screen display ; when the load height exceeds 7680, it supports dual-screen display .
- Supports arbitrary stringing of cables, and the empty areas are not counted into the network cable load, thus improving the utilization rate of network ports.
- Supports 3D function, which can be achieved by using a 3D transmitter and 3D glasses. After enabling 3D function, the device load is halved.
- It supports self-output of test images such as solid color, gradient, scan line, etc., which is convenient for on-site debugging and testing.
- Supports optical port and network port switching to meet on-site wiring debugging needs.
- Supports full-link audio accompanying input, as well as external audio input; and supports audio output.

- EDID configuration management: supports reading, modifying, and customizing EDID (Extended Display Identification Data).
- Supports one-click black screen/freeze function.
- Black edge removal/cropping function: solve the black edge problem generated by the front-end signal, and perform arbitrary cropping for any signal source (still keeping the full screen state)
- Support key lock to prevent accidental operation.
- The brightness and contrast of the overall output image can be adjusted in real time and quickly.
- Support adding one OSD layer for displaying slogans and other text information;

Front and rear panel diagram



*The product images in this article are for reference only. Please refer to the actual product purchased.

| Name | Illustrate |
|-------------------|--|
| Switch | The power switch of the device |
| LCD screen | Displays the current status and menu of the device. |
| Knob | <ul style="list-style-type: none"> • Press the knob to confirm the selection or enter the menu interface • Rotate the knob to select menu options or adjust parameters |
| ESC key | <ul style="list-style-type: none"> • ESC: Return button, used to return to the previous menu |
| Function keys | <ul style="list-style-type: none"> • MODE: Click to enter the mode switching interface • FUNC: Click to enter the common function interface • WIN: Click to enter the signal switching interface • OUT: Click to turn on the black screen, click again to return to normal |
| Signal switch key | <ul style="list-style-type: none"> • HDMI1: Click to switch HDMI1 signal |

- HDMI2: Click to switch HDMI2 signal
- HDMI3: Click to switch HDMI3 signal
- HDMI4: Click to switch HDMI4 signal
- DP(4K): Click to switch DP signal
- HDMI5(4K): Click to switch HDMI5 signal

Input source status light:

- Steady on: The input source signal is normal
- Flashing: No signal source is connected or the connected signal source is abnormal



*The product images in this article are for reference only. Please refer to the actual product purchased.

| Video input interface | | |
|-----------------------|-----|--|
| Interface | QTY | Illustrate |
| DP 1.2 | 1 | <ul style="list-style-type: none"> • Maximum support 3840*2160@60Hz or 7680*1080@60Hz • Support custom resolution: <ul style="list-style-type: none"> – Custom maximum width: 7680 – Custom maximum height: 7680 – Custom maximum frame rate: 120Hz • Support 8-bit video input • Supported color spaces/sampling rates: RGB 4:4:4/YCbCr 4:4:4/YCbCr 4:2:2 • Supports HDCP 1.4 • Supports accompanying audio • Does not support interlaced signal input |

| | | |
|----------|---|---|
| HDMI2.0 | 1 | <ul style="list-style-type: none"> • Maximum support 3840*2160@60Hz or 7680*1080@60Hz • Compatible with HDMI1.4 and HDMI1.3 video input • Support custom resolution: <ul style="list-style-type: none"> – Custom maximum width: 7680 – Custom maximum height: 7680 – Custom maximum frame rate: 120Hz • Support 8-bit video input • Supported color spaces/sampling rates: RGB 4:4:4/YCbCr 4:4:4/YCbCr 4:2:2 • Supports HDCP 1.4 • Supports accompanying audio • Does not support interlaced signal input |
| HDMI 1.3 | 4 | <ul style="list-style-type: none"> • Supported maximum input resolution : 2048*1152 @60Hz • Support custom resolution : <ul style="list-style-type: none"> – Custom maximum width: 2048 (2048 × 1152 @ 60Hz) – Custom maximum height: 4000 (462 × 4000 @60Hz) • Supports 8-bit video input. • Supports HDCP 1.4. • Supported color spaces/sampling rates: RGB 4:4:4/YCbCr 4:4:4/YCbCr 4:2:2. • Supports accompanying audio input. • Interlaced signal input is not supported. |

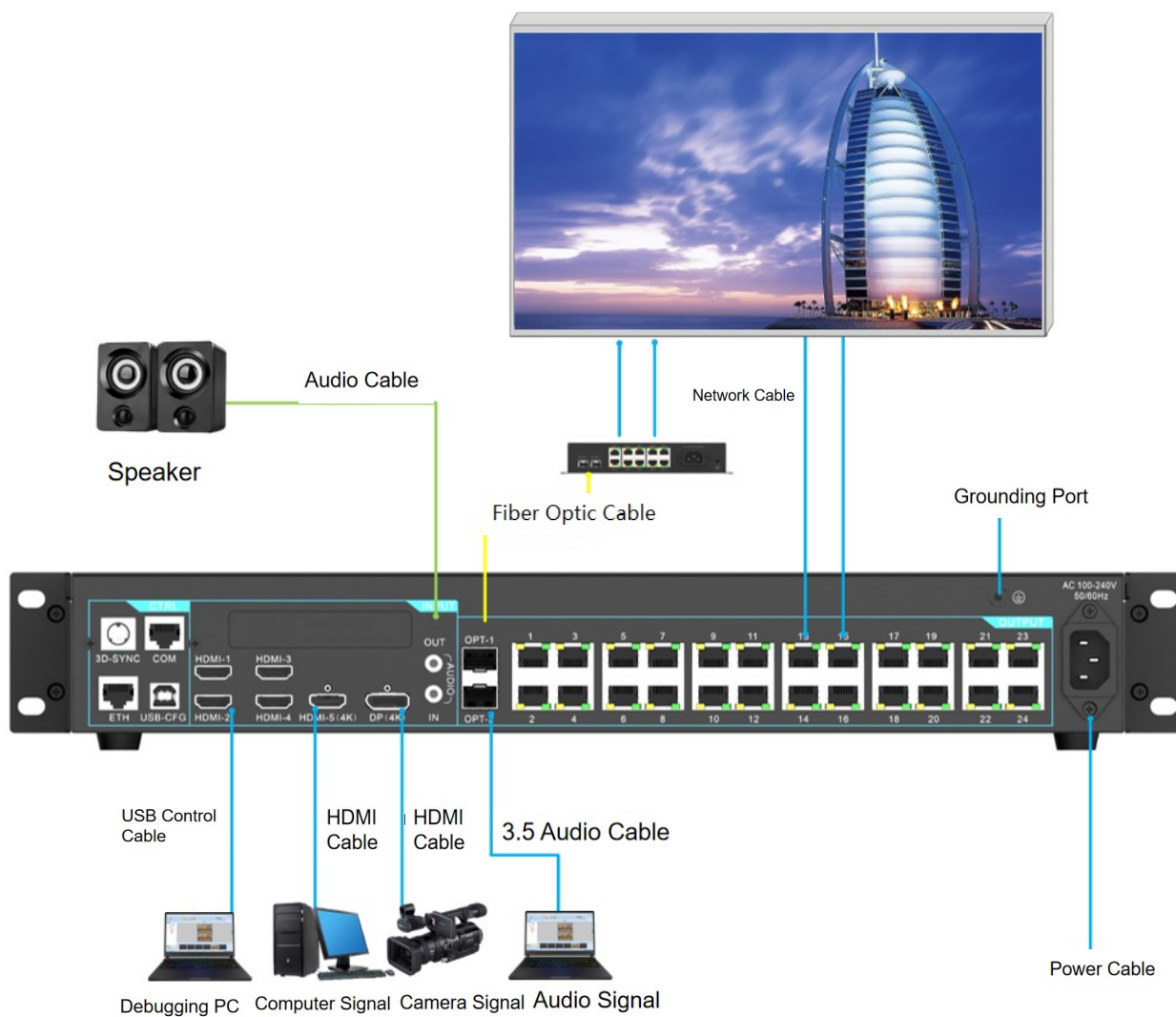
Video output interface

| Interface | QTY | Illustrate |
|--------------|-------------|---|
| Network port | Twenty four | <ul style="list-style-type: none"> • 24- channel Gigabit Ethernet output, capable of loading up to 15.6 million pixels. • Maximum width: 24540 , Maximum height: 15360 • The maximum load of a single network port is: When the output bit depth is 8 bits, 650,000 pixels |
| OPT | 2 | <ul style="list-style-type: none"> • 2 -way 10G optical port output, capable of carrying 13 million pixels. • OPT1 outputs the data of network ports 1-10, and OPT2 outputs the data of network ports 11-20 |

Audio Interface

| Interface | QTY | Illustrate |
|--------------------------|-----|--|
| Audio | 2 | 1 × audio input interface, 1 × audio output interface <ul style="list-style-type: none"> • 3.5mm standard audio input and output interface. • The audio sampling rate supports 48kHz. |
| Control interface | | |
| Interface | QTY | Illustrate |
| COM | 1 | <ul style="list-style-type: none"> • RJ-45 interface, used to connect to the central control equipment |
| USB -CFG | 1 | <ul style="list-style-type: none"> • USB-CFG interface, used to connect to a PC and control the device using the host computer software |
| NET | 1 | <ul style="list-style-type: none"> • RJ45 interface, used to connect to central control equipment • The device can be controlled by connecting to the host computer software via a network cable |
| 3D | 1 | <ul style="list-style-type: none"> • Connect 3D transmitter to realize 3D function |

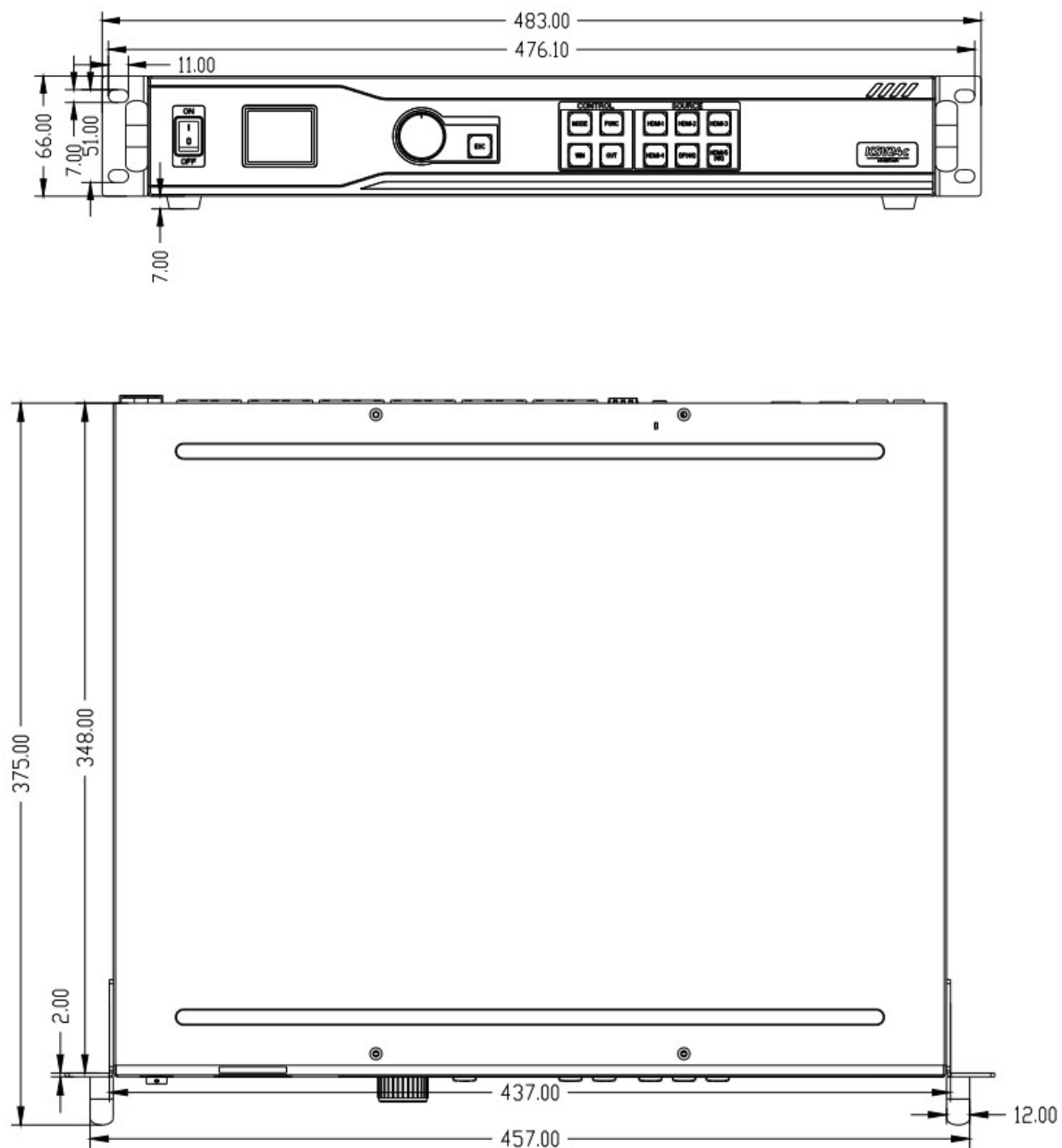
Application Scenario



Product Specifications

| Machine specifications | | |
|---------------------------|---------------------------|--|
| Model | | KLS24c |
| Electrical specifications | Power interface | 100-240V~, 50/60Hz |
| | Maximum power consumption | 102W |
| Work Environment | Temperature | 0°C ~ 50 °C |
| | Humidity | 0 %RH ~ 80 % RH, no condensation |
| Storage Environment | Temperature | -20 °C ~ +60 °C |
| | Humidity | 0 %RH ~ 95%RH, no condensation |
| Physical specifications | Product size | 482.6mm × 375mm × 66mm |
| Packaging Information | Accessories | 1×power cord, 1×HDMI cable, 1×USB cable, 1×certificate of conformity, 1×warranty card, 1× instruction manual |
| | Net weight | 5.1kg |
| | Gross weight | 6.2 kg |
| | Outer box size | 550 mm × 115 mm × 445 mm |

Product size




Unit: mm. Unmarked linear and angular dimension tolerances comply with GB/T1804-M.

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