

LED Video Controller

Specification v1.5



Overview

LED Video Controller is a professional LED display control device with powerful video signal source and processing capabilities. It can handle up to 1920×1080 HD digital signals, supports various types of HD digital interfaces, and supports arbitrary zooming and clipping of video sources. In addition, the controller supports USB flash drive content playback. The controller has 4 gigabit network port outputs and can support maximum 3840 pixels in width and maximum 2000 pixels in height. At the same time, the controller has a series of practical functions, providing flexible screen control and high-quality image display, which can be perfectly applied to small LED display.

Features

Input

- Input resolution: max 1920×1080@60Hz.
- Signal sources: 2×HDMI1.4, 1×DVI, 1×VGA, 1×CVBS.
- U-disk interface: 1×USB.

Output

- Loading capacity: 2.6 million pixels.
- Maximum width is 3840 pixels or maximum height is 2000 pixels.
- 4 Gigabit Ethernet output ports.
- Supports Ethernet port redundancy

Audio

- Input: 1×3.5mm.
- Output: 1×3.5mm, support HDMI and DP audio outputs.

Function

- Supports switching, clipping and zooming.
- Supports screen offset.
- Supports screen adjustment: contrast, saturation, chroma, brightness compensation and sharpness adjustment.
- Supports convert Limit Range to Full Range input color space.
- Supports send and read back screen correction factor, advanced stitching.
- Supports HDCP1.4.
- Supports Precise Color Management.

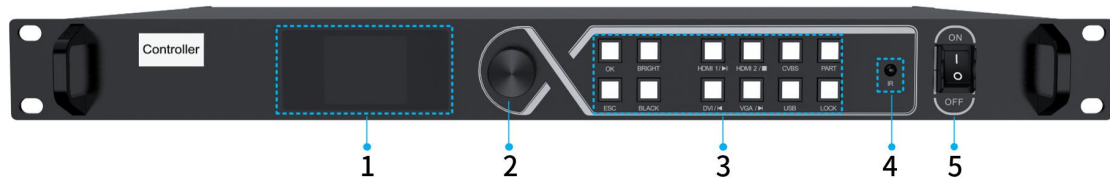
- Supports Better Gray Level at Low Brightness, can effectively maintain the complete display of grey scale under low brightness.
- 16 scene presets.
- Play back pictures and videos from U-disk.
- OSD for U-disk playback and screen adjustment (Remote controller optional).

Control

- USB port for control.
- RS232 protocol control.
- Infrared remote control (optional).

Appearance

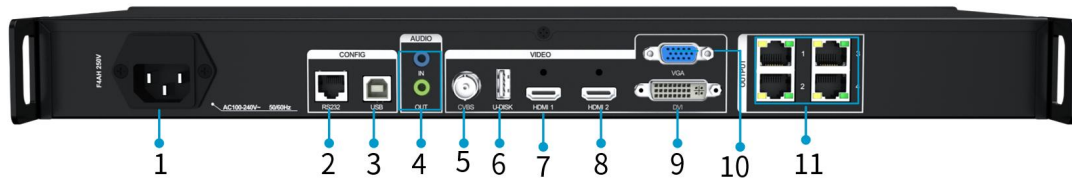
Front panel



| No. | Item | Function |
|-----|-----------------|--|
| 1 | LCD display | Display operation menu and system information. |
| 2 | Knob | <ul style="list-style-type: none"> • Press the knob to access the submenu or confirm. • Turn the knob to select menu items or adjust parameters. |
| 3 | Function button | <ul style="list-style-type: none"> • OK: Enter. • Bright: Adjust brightness. • ESC: Exit the current interface. • Black: Black the screen. • HDMI 1 / HDMI 2 / DVI 1 / VGA : <ul style="list-style-type: none"> - Switching to a signal source by clicking corresponding button. - In U-disk playback mode, these buttons serve respectively as play/pause, stop, previous and next. • CVBS: Switch to CVBS. • PART: Clip the picture. • USB: Click the USB button to enter the U-disk playback mode. Click again to enter the console interface. • LOCK: Lock the buttons on the front panel. |
| 4 | IR | IR receiver. |

| | | |
|---|--------|----------------|
| 5 | Switch | Switch on/off. |
|---|--------|----------------|

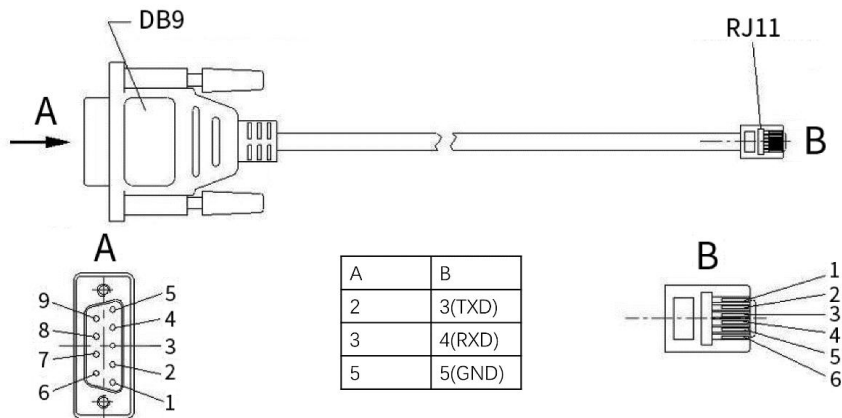
Rear panel



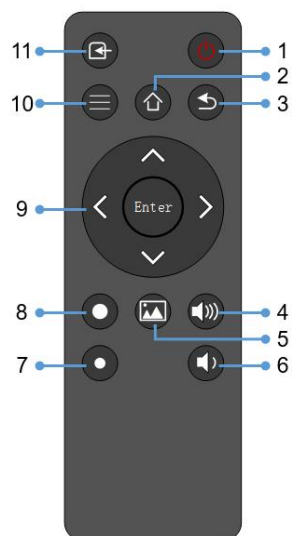
| Power supply | | |
|--------------|--------------|--|
| 1 | Power Socket | AC100-240V~, 50 / 60Hz, Connect to AC power supply. |
| Control | | |
| 2 | RS232 | RJ11 (6P6C) interface *, used to connect the central control. |
| 3 | USB | USB2.0 Type B interface, connect to PC for configuration. |
| Audio | | |
| 4 | AUDIO IN | <ul style="list-style-type: none"> Interface type: 3.5mm Receive audio signals from computer or other equipment. |
| | AUDIO OUT | <ul style="list-style-type: none"> Interface type: 3.5mm Output audio signals to active speaker and other devices. (Support HDMI audio decoding and output) |
| Input | | |
| 5 | CVBS | PAL/NTSC video input |
| 6 | U-DISK | <ul style="list-style-type: none"> USB flash drive interface. USB flash drive format supported: NTFS, FAT32, FAT16. Image file formats: jpeg, jpg, png, bmp. Video codec: MPEG1/2, MPEG4, Sorenson H.263, H.263, H.264(AVC1), H.265(HEVC), RV30/40, Xvid. Audio codec: MPEG1/2 Layer I, MPEG1/2 Layer II, MPEG1/2 Layer III, AACLC, VORBIS, PCM, and FLAC. Video resolution: maximum 1920×1080@30Hz. |
| 7 | HDMI 1 | <ul style="list-style-type: none"> 1 x HDMI1.4 input. Maximum resolution: 1920×1080@60Hz. Support EDID1.4. Support HDCP1.4. Support audio input. |
| 8 | HDMI 2 | <ul style="list-style-type: none"> 1 x HDMI1.4 input. Maximum resolution: 1920×1080@60Hz. Support EDID1.4. |

| | | |
|---------------|----------|--|
| | | <ul style="list-style-type: none"> • Support HDCP1.4. • Support audio input. |
| 9 | DVI | <ul style="list-style-type: none"> • Maximum resolution: 1920×1080@60Hz. • Support EDID1.4. • Support HDCP1.4. |
| 10 | VGA | <ul style="list-style-type: none"> • Maximum resolution: 1920×1080@60Hz. |
| Output | | |
| 11 | PORT 1-4 | <ul style="list-style-type: none"> • 4 Gigabit Ethernet ports. • One network port load capacity: 655360 pixels. • Total load capacity is 2.6 million pixels, maximum width is 3840 pixels and maximum height is 2000 pixels. • It is highly recommended that the cable (CAT5E) length should not exceed 100m. • Support redundant backup. |

* RJ11 (6P6C) to DB9 connecting diagram. The cable is optional.



* Remote controller is optional.



| No. | Item | Function |
|-----|----------------------|---|
| 1 | Sleep/Wake up | Hibernate/wake up the device (one-button black screen switch) |
| 2 | Main menu | Open the OSD menu. |
| 3 | Back | Exit the OSD menu or return to previous menu |
| 4 | Volume + | Volume up |
| 5 | U-disk playback | Playback content from U-disk |
| 6 | Volume - | Volume down |
| 7 | Bright - | Decrease the screen brightness |
| 8 | Bright + | Increase the screen brightness |
| 9 | Confirm + directions | Confirm and navigation buttons |
| 10 | Menu | Switch on/off the menu |
| 11 | Input signal sources | Switch input signal sources |

Application scenarios



Signal format

| Input | Color space | Sampling | Color depth | Max Resolution | Frame rate |
|----------|-------------|----------|-------------|----------------|---|
| DVI | RGB | 4:4:4 | 8bit | 1920×1080@60Hz | 23.98, 24, 25, 29.97, 30, 50, 59.94, 60, 100, 120 |
| HDMI 1.4 | YCbCr | 4:2:2 | 8bit | 1920×1080@60Hz | 23.98, 24, 25, 29.97, 30, 50, 59.94, 60, 100, 120 |
| | YCbCr | 4:4:4 | 8bit | | |
| | RGB | 4:4:4 | 8bit | | |

Other specification

| | |
|-----------------------------------|---|
| Chassis size (W×H×D) | |
| Host | 482.6mm (19.0") × 44.0mm (1.7") × 292.0mm (11.5") |
| Package | 523.0mm (20.6") × 95.0mm (3.7") × 340.0mm (13.4") |
| Weight | |
| Net weight | 3.13kg (6.90lbs) |
| Gross weight | 4.16kg (9.17lbs) |
| Electrical Characteristics | |
| Input power | AC100-240V, 50/60Hz |
| Power rating | 10W |
| Work condition | |
| Temperature | -20°C~65°C (-4°F~149°F) |
| Humidity | 0%RH~80%RH, no condensation |
| Storage condition | |
| Temperature | -30°C~80°C (-22°F~176°F) |
| Humidity | 0%RH~90%RH, no condensation |

Reference dimensions

Unit: mm

