



KLS2c Specification

3-in-1 Video Controller



Version: v3.0

Release Date: June 2025

Revision History

Serial Number	Summary of the revisions	Revision Date	Revised by
1	Initial release	2024/09/14	
2	Modify related functions and descriptions	2024/09/26	
3	Organize and update document format	2025/06/13	

Safety Instructions

This chapter introduces the safety instructions of the two-in-one controller KLS2c to ensure the safety of product 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 explosive gas environment.
- Do not place in a strong electromagnetic environment.
- Please place the product in a stable location to prevent it from falling and causing product damage 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.
- It is forbidden to plug or unplug while the power is on.
- Please ensure that the box is safely grounded.
- Please wear 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 KLS2c three-in-one controller is a two-network-port three-in-one controller that integrates professional video processor, LED sending card and offline player for LED display solutions. One device can easily handle large screens, greatly simplifying LED solution configuration and on-site debugging.

Certification Information

CQC

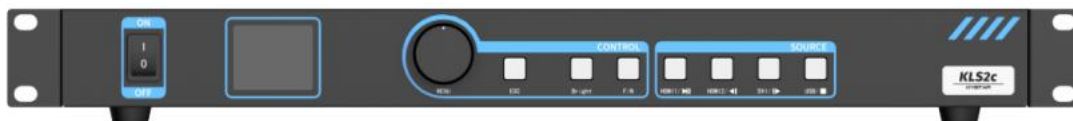
If the product has no relevant certification in any country or region, please contact us immediately for confirmation or processing. Otherwise, if any legal risks are caused, the customer shall bear them by himself or our company shall have the right to seek compensation.

Features





- The single machine has 2 network ports, and the maximum load capacity of the whole machine is 1.31 million pixels, the width can reach 4096 points, and the height can reach 2048 points.
- Supports multiple digital signal interfaces, including 2*HDMI1.3, 1*DVI-D and 1*USB.
- Supports arbitrary stringing, the network port load is not restricted by rectangle, and the utilization rate of the network port is improved .
- Supports USB playback and perfectly supports multiple video and picture formats.
- EDID configuration management: supports reading, modifying and customizing EDID (Extended Display Identification Data).
- Supports one-key freeze function.
- Supports output of various test screens such as pure color, gradient, scan line , etc.
- Black edge removal/cropping function: solve the black edge problem generated by the front-end signal and perform arbitrary cropping on 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.

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	Power switch of the device
LCD screen	Displays the current status and menu of the device.
Knobs	<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
Function shortcut keys	<ul style="list-style-type: none"> • ESC: Click to exit the current interface • Bright: Click to enter the brightness debugging interface • F/N: customizable function key, default is partial panorama switch button
Signal switch key	<ul style="list-style-type: none"> • HDMI1/ : Switch HDMI1 signal source; in USB playback mode, it is the pause/play button • HDMI2/ : Switch HDMI2 signal source; click to play the previous file in USB playback mode • DVI/ : Switch DVI signal source; click to play the next file in USB playback mode • USB/ : Switch USB signal source; click again to enter USB playback mode; click in USB playback mode to stop playback <p>Input source status light:</p> <ul style="list-style-type: none"> – Steady on: The input source signal is normal – Flashing: No signal source is connected or the connected signal source is abnormal

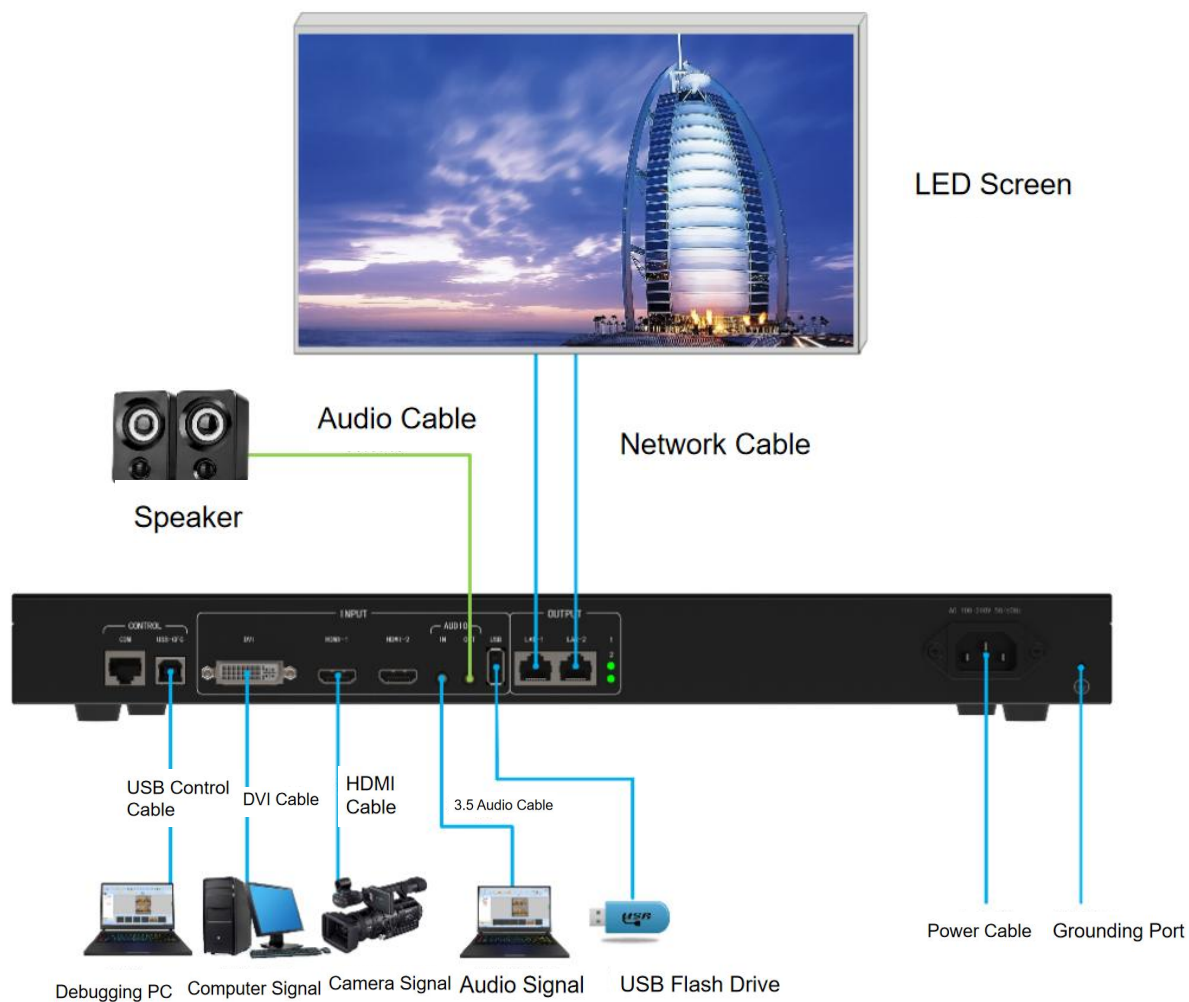


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Video input interface		
Interface	QTY	Illustrate
HDMI 1.3	2	<ul style="list-style-type: none"> • Support maximum input resolution : 2048*1152 @60Hz • Support custom resolution : <ul style="list-style-type: none"> – Custom maximum width: 2048 – Custom maximum height: 1200 • 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.
DVI	1	<ul style="list-style-type: none"> • Support maximum input resolution: 2048*1152@60Hz • Support custom resolution : <ul style="list-style-type: none"> – Custom maximum width: 2048 – Custom maximum height: 1200 • 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. • Accompanying audio input is not supported. • Interlaced signal input is not supported.
USB	1	<ul style="list-style-type: none"> • U disk input, support playing videos or pictures in U disk • Support maximum input resolution: 1920*1080@60Hz • Supported USB disk formats and sizes : <ul style="list-style-type: none"> – NTFS system supports up to 2T – FAT32 system supports up to 192G

		<ul style="list-style-type: none"> Support video accompanied by audio input.
Video output interface		
Interface	QTY	Illustrate
Network port	2	<ul style="list-style-type: none"> 2- way Gigabit Ethernet output, capable of loading up to 1.3 million pixels. Maximum width: 4096 , Maximum height: 2048 The maximum load of a single network port is: When the output bit depth is 8 bits, 650,000 pixels Network port indicator <ul style="list-style-type: none"> Flashing: Communication with the receiving card is normal, flashing frequency 1/2 second each time Steady on: Communication with the receiving card is abnormal Off: The network cable is not connected
Audio Interface		
Interface	QTY	Illustrate
Audio	2	<p>1 × audio input interface, 1 × audio output interface</p> <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 device
USB -CFG	1	<ul style="list-style-type: none"> USB-CFG interface, used to connect to PC and control the device using host computer software

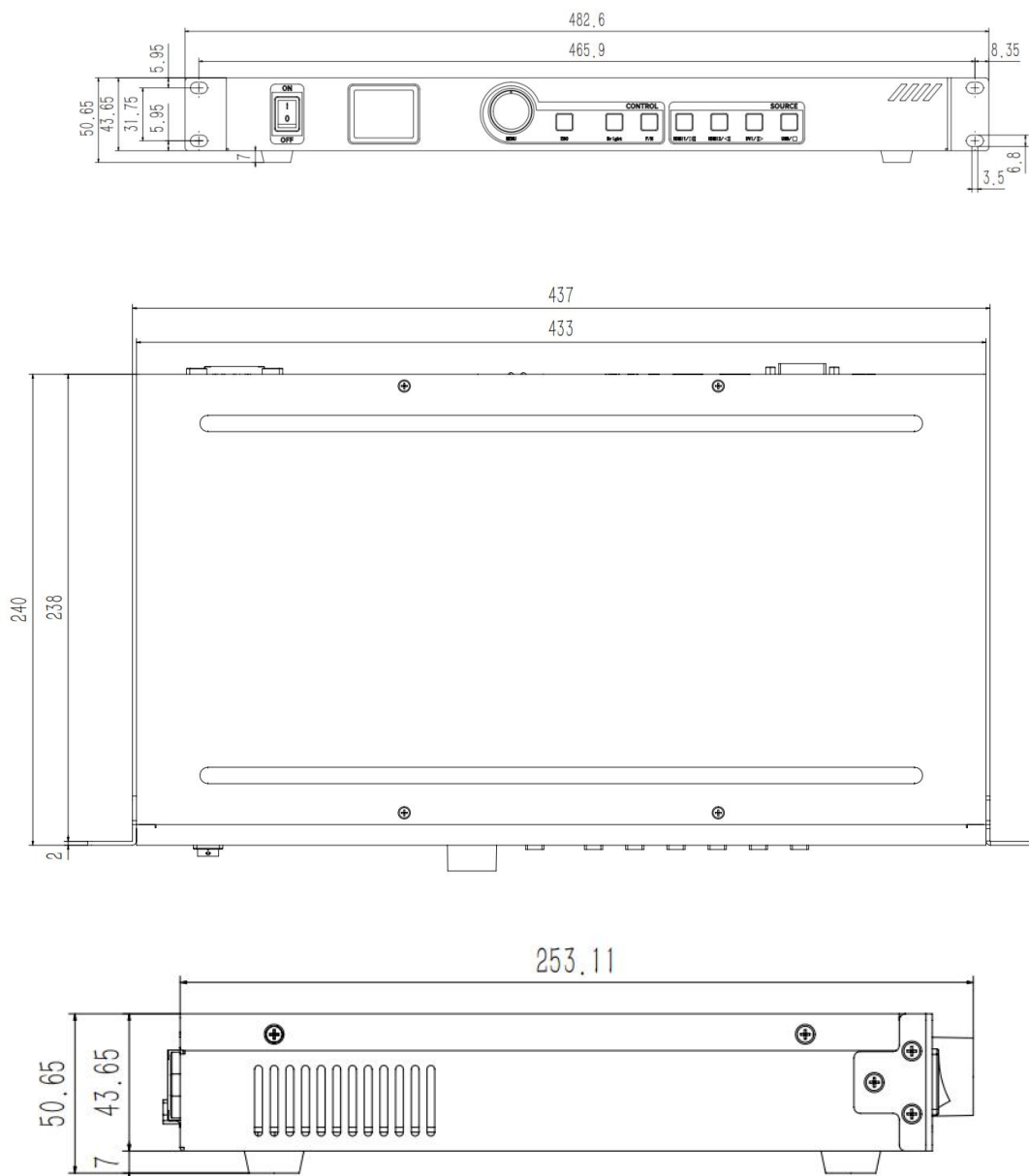
Application Scenario



Product Specifications

Machine Specifications		
Model		KLS2c
Electrical specifications	Power interface	100-240V~, 50/60Hz
	Maximum power consumption	25W
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	482.6×253.11×50.65mm (L×W×H)
Packaging Information	Accessories	1×power cable, 1×HDMI cable, 1×USB cable, 1×certificate of conformity, 1×warranty card, 1× instruction manual
	net weight	2.6 kg
	gross weight	3.6 kg
	Outer box size	550 mm × 90 mm × 335 mm

Product Size



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

Appendix

Attachment: USB audio and video playback type

It is recommended to use AVI files, video encoding AVC, and audio encoding MP3 (as shown in the yellow format below) .


O means support, × means no support

Video codec support list			
File extensions	File Encapsulation	Video Encoding	Support
*.avi	AVI	Divx	×
		XvD	O
		MPEG2	O
		H.264 (AVC)	O
		MPEG-4	×
		Motion JPEG	O
*.wmv, *.asf	ASF	WMV	×
*.mp4	MP4	H.264 (AVC)	O
		XvD	O
		DivX	O
		MPEG-4	O
		Motion JPEG	×
*.mkv	MKV	RealVedio	×
		AVC	O
		MPEG-4	O
		MPEG-2	O
		MPEG-1	O
*.mpg, *.mpeg	MPG, MPEG	MPEG-2	O
		MPEG-1	O
*.ts	MPEG2-TS	MPEG-2	O
		H.264 (AVC)	O
*.FLV	FLV	sorenson	O
		H.264 (AVC)	O
Audio codec support list			
/		Audio Coding	Support
		PCM	O
		MP3	O
		AAC	×
		HE-AAC	×
		MP2	O
		AC3	×
		WMA	×

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Beijing KystarTechnology Co., Ltd.

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