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AOTO APP

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LED Application Expert

# 8K

## LED Video Controller



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AOTO

With years of video controller developing experience, AOTO designed and developed the brand new ATLVC-8K video controller using multiple patented technology. ATLVC-8K, mainly used in rental industry, stage industry, monitoring room and studio, has the following features. off-line working, quick screen building, high color depth display, high processing depth, wide color range display, 3D technology, multiple video interface, super big loading area and flexible configuration.

## ATLVC-8K

### Video Controller



## Product Features

### Strong loading capacity

- ※Maximum load is 20,640,000 pixels
- ※It can drive maximum 65,535 pcs receiving cards

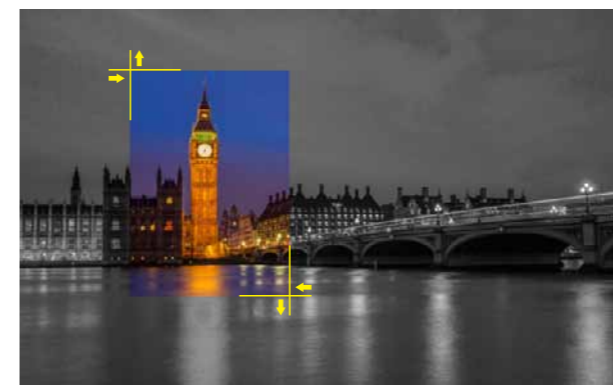
### Excellent Displaying Technology as follows

- ※High color depth: It supports 8 bit, 10 bit, 12bit
- ※Seamless splicing: Eliminating bright and dark line
- ※Perfect low-gray display: No grainy or color-cast problem when in low gray
- ※Strengthened image stability: The image is stable and not shaking seeing from video camera
- ※Wide color range display: Realizing the swap among AOTO color space, PAL and NTSC color space.
- ※Supporting 3D display



### Video interfaces and processing technology as follows

- ※Video Interface: HDMI, DVI, 3G/HD-SDI
- ※Resolution: Maximum resolution is 8Kx2K@60Hz
- ※Automatic identification of input signal
- ※Seamless swap among different video sources
- ※With video scaling and splitting function
- ※Supports multiple splicing modes and fast switching

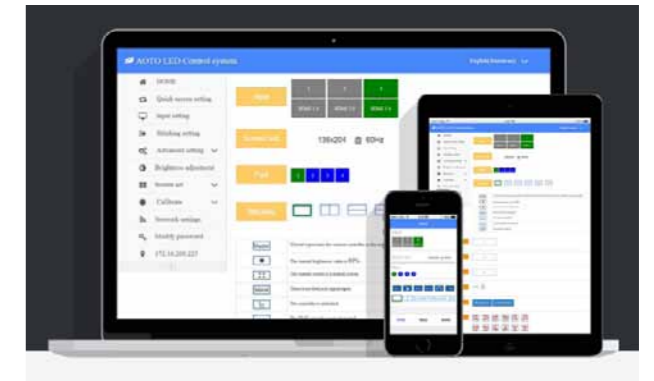


### Off-line Working

- ※Supporting USB system upgrade.
- ※Visual menu setup and Off-line quick screen building.
- ※Supporting the import of configuration file and system parameters by USB connection when off line.

### Flexible Operation

- ※System setup can be done via front panel, button, control software, remote network.
- ※Supporting customized EDID
- ※Insert-card operation, flexible configuration of system loading capacity, with video input port and screen output port.
- ※Supporting screen multicast upgrade
- ※Supporting quick screen building



### System running guarantee

- ※Supporting power supply hot backup to guarantee stable system running.
- ※Supporting 32G optical fiber transmission, long distance, high reliability and simplified cabling from video controller to screen.



## FRONT



## ① Power on/off: Soft switching

Press once: it indicates power off and the panel displays 'Yes' and 'Cancel' with three-second countdown. If still not confirmed after countdown, system will automatically cancel the power-off action

Long press to power off the device mandatorily

## ② Quick buttons: Preset mode for quick switching.

## ③ USB port: Supporting importing system parameters.

## ④ Rotary knob: Fast option switch. Pressing once means confirming action

## ⑤ Functional buttons: BACK, TEST, PICT, CTRL

BACK: Press once—go back or exit the current panel;

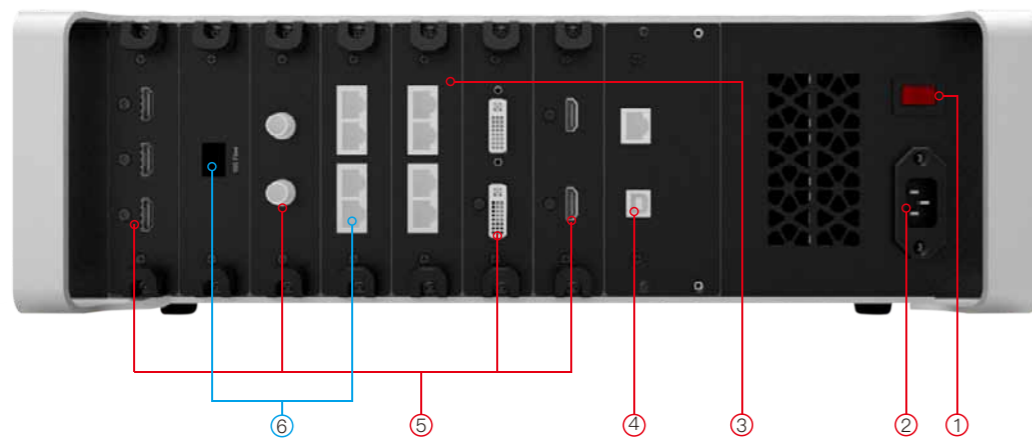
TEST: Press once—press once to enter 'Test mode' menu, options available among Black, Red, Green, Blue, White, Diagonal, Grid and color stripes

PICT: Press one—quickly cut off the screen video signal

CTRL: Press one—quick access to the control mode interface

## ⑥ 7-inch touch panel: Resolution 1280x800, supporting touch input

## BACK



## ① Rocker switch: System AC power on/off

## ② AC power supply input socket

## ③ ATLVC cabinet slot: The current video controller supports 8pcs slot, seven of them can be freely configured by user.

## ④ System card: Responsible for the configuration of other cards, fixed location and unique configuration

## ⑤ 3H collection card(optional): Responsible for receiving video from HDMI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

## ⑥ 4S collection card(optional): Responsible for receiving video from SDI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

## 2D collection card(optional): Responsible for receiving video from DVI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

## ⑥ Gigabyte network sending card(optional): Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

## Optical fiber sending card(optional): Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

## Product Specification

Video input interface	
Interface	TypeResolution
DVI	1920 x 1080 @60Hz
3G-SDI	1920 x 1080 @60Hz
HDMI 2.0	4096 x 2160 @60Hz

Video output interface	
Interface Type	Single port resolution
Gigabyte network output	1000Mb/S, loading 640,000 pixels
Optical fiber output	8 Gb/S, loading 5,120,000 pixels

Control Interface	
LAN	Used to connect to Internet to realize the remote control of this device
USB-A	Used to connect portable USB device
Panel Display	7-inch capacitive touch screen, 1280x800
USB-B	Used as control platform port

Cabinet		
Front Panel	Display dimension	7-inch capacitive touch screen
	Display Resolution	1280x800
	Display Texture	Capacitive touch screen
	Functional buttons	4pcs ( BACK, TEST, PICT, CTRL)
	Quick buttons	8pcs (S1 ~ S8), preset mode quick switch
	Fine-tune rotary knob	1 pcs, with Confirm button
	Indicator LED	2 pcs( power supply and system running)
Back Panel	Power on/off	1pcs
	Power supply port	1pcs
	USB port	1pcs
	LAN port	1pcs
	Card slot quantity	8pcs(flexible sending card configuration and combination), system requires at least 1pcs system card, 1pcs sending card and supports maximum 7pcs sending cards.
	HDMI port	3xn pcs( 1 for 4K@60Hz port, and 2 for 2K@60Hz ports), optional
	DVI port	2xn pcs, optional
	SDI port	4xn pcs, optional
	Optical fiber output port	1xn pcs, optional
	Gigabyte network output port	8pcs, optional
Dimension(mm)	483x400x133 (H*W*D, 3U)	
Weight(Kg)	9.2Kg	
Working environment	Work Temp: -10~40°C/90%RH	Storage Temp: -30~60°C/90%RH
Input Voltage(V)	AC 100 - 240, 50/60Hz	
Input Current(A)	0.9A	
Power supply backup	Yes, double backup	

Other Features	
3D Display	Supporting 1080P@60Hz, Up, Down, Left and Right video format
Video Scaling	Yes
Video Splicing	Yes
Customize EDID	Yes

With years of video controller developing experience, AOTO designed and developed the brand new ATLVC-4K video controller using multiple patented technology which can be used in majority of applications. It is the upgrade of current ATLVC-XS video controller and has the following features. Quick screen building, high color depth display, high processing depth, wide color range display, 3D technology, super HD loading area, web server log-in and flexible configuration.

## ATLVC-4K

### Video Controller



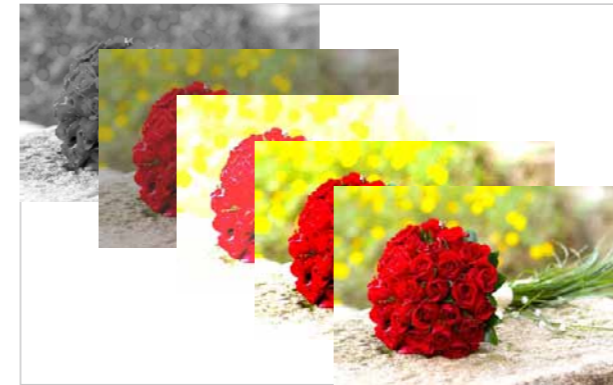
## Product Features

### Strong loading capacity

- ※Maximum load is 10,320,000 pixels
- ※It can drive maximum 65,535 pcs receiving cards

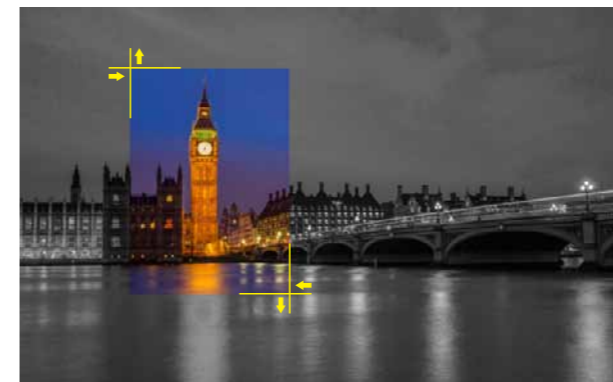
### Excellent Displaying Technology as follows

- ※High color depth: it supports 8 bit、10 bit、12bit
- ※Seamless splicing: Eliminating bright and dark line
- ※Perfect low-gray display: No grainy or color-cast problem when in low gray
- ※Strengthened image stability: The image is stable and not shaking seeing from video camera
- ※Color space conversion: Realizing the swap PAL, NTSC and custom color space.
- ※Supporting 3D display



### Video interfaces and processing technology as follows

- ※Video Interface: HDMI, DVI, 3G/HD-SDI
- ※Resolution: Maximum resolution is 4Kx2K@60Hz
- ※Automatic identification of input signal
- ※Seamless swap among different video sources
- ※With video scaling and splitting function
- ※Supports multiple splicing modes and fast switching
- ※Supporting DMX512 control protocol
- ※Supporting GenLock sync and loop-out

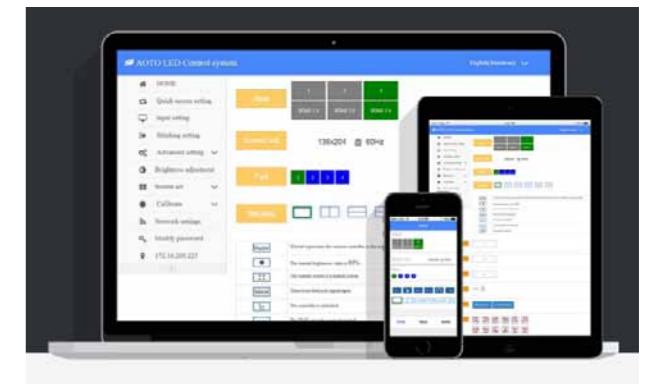


### Off-line Working

- ※Supporting USB system upgrade.
- ※Visual menu setup and Off-line quick screen building.
- ※Supporting the import of configuration file and system parameters by USB connection when off line.

### Flexible Operation

- ※Can be set directly through the front panel. Also through the phone, PAD, computer network login WEB server for system settings.
- ※Supporting DMX512 control platform
- ※Supporting customized EDID
- ※Insert-card operation, video input interface and screen output interface can be configured as required.
- ※Supporting screen multicast upgrade
- ※Supporting quick screen building



### System running guarantee

- ※Supporting 16G optical fiber transmission, long distance, high reliability and simplified cabling from video controller to screen.



## FRONT



① **USB port:** Importing configuration file and system parameters and so on

② **Power on/off:** Soft switching

Press once: it indicates power off and the panel displays 'Yes' and 'Cancel' with three-second countdown. If still not confirmed after countdown, system will automatically cancel the power-off action

Long press to power off the device mandatorily

③ **Power indicator and System running indicator**

④ **Quick buttons:** Swap among different splicing mode

⑤ **Rotary knob:** Fast option switch. Pressing once means confirming action

⑥ **Functional buttons:** BACK, TEST, PICT, CTRL

BACK: Press once—go back or exit the current panel; Long press—go back to main panel

CTRL+BACK—Lock/unlock the LCD display. When lock/unlock is done, the system indicator light flashes once, meaning operation successful

TEST: Press once—TEST: Press once to enter 'Test mode' menu, options available among Black, Red, Green, Blue, White, Diagonal, Grid and color stripes  
Long press to exit 'Test mode'

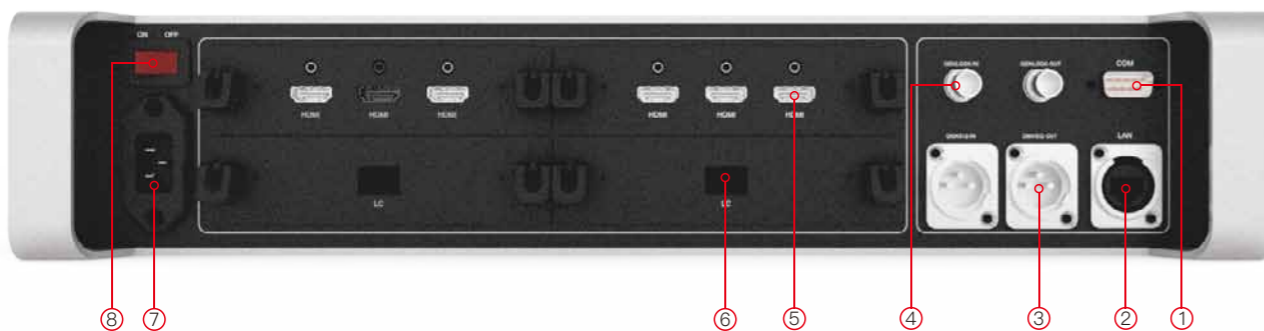
PICT: Press once to Enter off-line picture control menu, options available among Black, Random picture, prestored pictures

Long press to exit the currently shown picture of LED screen and return to normal display status

CTRL: Mixed control button, see descriptions above.

⑦ **4.3-inch touch panel:** Resolution 480x272

## BACK



① **COM port:** Connecting RS232 port to configure system parameters

② **LAN port:** Network port used to connect PC or router to get an access to Internet

③ **DMX512 port:** Separate port for input and output, realizing the brightness control of various digital lighting systems

④ **GenLock port:** Separate port for input and output, digital phase-locked, realizing the source synch of multi systems

⑤ **2D collection card(optional):** Responsible for receiving video from DVI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

**3H collection card(standard):** Responsible for receiving video from HDMI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

**4S collection card(optional):** Responsible for receiving video from SDI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

⑥ **Gigabyte network sending card(optional):** Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

**Optical fiber sending card(standard):** Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

⑦ **AC power supply input socket**

⑧ **System AC power on/off**

## Product Specification

Video input interface	
Interface	TypeResolution
DVI	1920 x 1080 @60Hz
3G-SDI	1920 x 1080 @60Hz
HDMI 2.0	4096 x 2160 @60Hz

Video output interface	
Interface Type	Single port resolution
Gigabyte network output	1000Mb/s, loading 640,000 pixels
Optical fiber network output	8 Gb/s, loading 5,120,000 pixels

Control Interface	
COM	To connect RS232 port to configure system parameters
LAN	To connect with Internet, realizing the remote control of this device
USB	To connect with portable USB device
Panel Display	4.3-inch LCD display, 480x272
DMX512	To connect with DMX512 device to control the stage lighting device system
GenLock	To connect with GenLock Synch input, realizing the source synch of multi systems

Cabinet		
Front Panel	Display size	4.3-inch LCD display
	Display Resolution	480x272
	Functional buttons	4 pcs (BACK, TEST, PICT, CTRL)
	Quick buttons	6pcs, swap among splicing modes
	Fine-tune rotary knob	1pcs, with Confirm button
	Indicator LED	2pcs( power supply and system running)
	USB port	1pcs
Back Panel	Power on/off	1pcs
	Power supply port	1pcs
	HDMI port	3pcs( 1 for 4K@60Hz port, and 2 for 2K@60Hz ports), standard
	DVI port	4pcs, optional
	SDI port	8pcs, optional
	Optical fiber output port	2pcs, optional
	Gigabyte network output port	8pcs, optional
	DMX512 port	2pcs
	GenLock port	2pcs
	COM port	1pcs
LAN port	1pcs	
<b>Dimension(mm)</b>	483x400x88 (W*D*H, 2U)	
<b>Weight(Kg)</b>	7Kg	
<b>Working environment</b>	Work Temp: -10~40°C/90%RH	Storage Temp: -30~60°C/90%RH
<b>Input Voltage(V)</b>	AC 100 - 240, 50/60Hz	
<b>Input Current(A)</b>	0.9A /50Hz-60Hz	

Other Features	
<b>3D Display</b>	Supporting 1080P@60Hz, Up, Down, Left and Right video format
<b>Video Scaling</b>	Yes
<b>Video Splicing</b>	Yes
<b>Customize EDID</b>	Yes

With years of video controller developing experience, AOTO designed and developed the brand new ATLVC-2K video controller using multiple patented technology which can be used in majority of applications. It is the upgrade of current ATLVC-HS video controller and has the following features. Quick screen building, high color depth display, high processing depth, wide color range display, 3D technology, super HD loading area, web server log-in control and flexible configuration.

## ATLVC-2K

### Video Controller



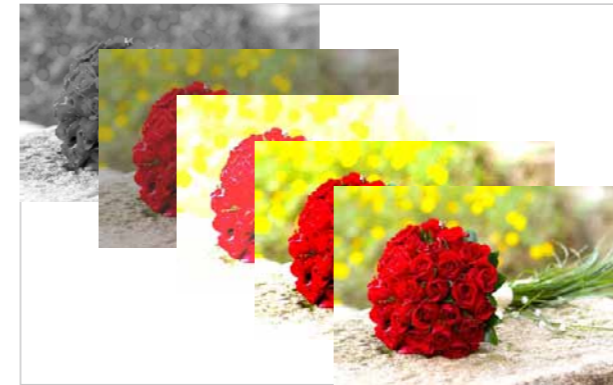
## Product Features

### Strong loading capacity

- ※Maximum load is 5,160,000 pixels
- ※It can drive maximum 65,535 pcs receiving cards

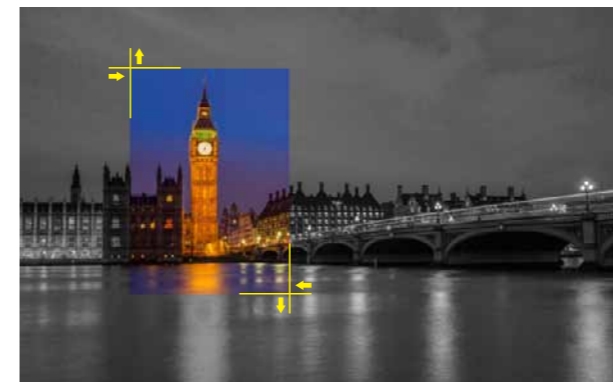
### Excellent Displaying Technology as follows

- ※High color depth: it supports 8 bit、10 bit、12bit
- ※Seamless splitting: Eliminating bright and dark line
- ※Perfect low-gray display: No grainy or color-cast problem when in low gray
- ※Strengthened image stability: The image is stable and not shaking seeing from video camera
- ※Color space conversion: Realizing the swap PAL, NTSC and custom color space
- ※Supporting 3D display



### Video interfaces and processing technology as follows

- ※Video Interface: HDMI, DVI, 3G/HD-SDI
- ※Resolution: Maximum resolution is or 2048x2160@60Hz or 4Kx2K@30Hz
- ※Automatic identification of input signal
- ※Seamless swap among different video sources
- ※With video scaling and splitting function

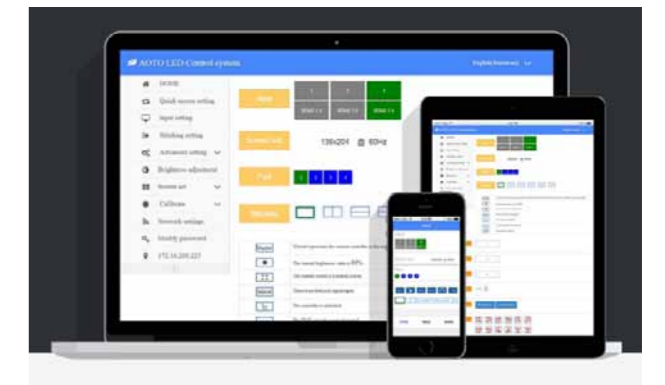


### Off-line Working

- ※Supporting USB system upgrade.
- ※Visual menu setup and Off-line quick screen building.
- ※Supporting the import of configuration file and system parameters by USB connection when off line.

### Flexible Operation

- ※Can be set directly through the front panel. Also through the phone, PAD, computer network login WEB server for system settings.
- ※Supporting DMX512 control platform
- ※Supporting customized EDID
- ※Insert-card operation, video input interface and screen output interface can be configured as required.
- ※Supporting screen multicast upgrade
- ※Supporting quick screen building



### System running guarantee

- ※Supporting 8G optical fiber transmission, long distance, high reliability and simplified cabling from video controller to screen.



## FRONT



## ① Power on/off: Soft switching

Press once: It indicates power off and the panel displays 'Yes' and 'Cancel' with three-second countdown. If still not confirmed after countdown, system will automatically cancel the power-off action

Long press to power off the device mandatorily.

## ② USB port: Importing configuration file and system parameters and so on

## ③ Power indicator and System running indicator

## ④ Functional button: BACK

BACK: Press once to go back or exit the current panel; Long press to go back to main panel

## ⑤ Rotary knob: Fast option switch. Pressing once means confirming action

## ⑥ 3.12-inch LCD display: Resolution 256x64

## BACK



## ① Gigabyte network sending card(optional): Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

**Optical fiber sending card(optional):** Receiving video from upper level card and transmitting to next level card, then sending the video within the loading area to the LED screen or may be to the other video sending cards through network port depending on the system configuration

## ② 2H sending card(optional): Responsible for receiving video from HDMI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

**2D sending card(optional):** Responsible for receiving video from DVII video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

**2S sending card(optional):** Responsible for receiving video from SDI video interface or other cards, and then sending the video through output interface to the next level card which may be other sending card, depending on the system configuration

## ③ COM port: Connecting RS232 port to configure system parameters

## ④ LAN port: Network port used to connect PC or routeur to get an access to Internet

## ⑤ Rocker switch: System AC power on/off

## ⑥ AC power supply input socket.

## Product Specification

Video input interface	
Interface	TypeResolution
DVI	1920 x 1080 @60Hz
3G-SDI	1920 x 1080 @60Hz
HDMI 1.4	3840 x 2160 @30Hz

Video output interface	
Interface Type	Single port resolution
Gigabyte network output	1000Mb/S, loading 640,000 pixels
Optical fiber output	8 Gb/S, loading 5,120,000 pixels.

Control Interface	
COM	To connect RS232 port to configure system parameters
LAN	To connect with Internet, realizing the remote control of this device
USB	To connect with portable USB device
Panel Display	3.12 inches OLED display, 256x64

Cabinet		
Front Panel	Display size	3.12-inch OLED display
	Display Resolution	256x64
	Functional buttons	1pcs(BACK)
	Fine-tune rotary knob	1pcs, with Confirm button
	Indicator LED	2pcs( power supply and system running)
	USB port	1pcs
Back Panel	Power on/off	1pcs
	Power supply port	1pcs
	HDMI port	2pcs, standard
	DVI port	2pcs, optional
	SDI port	4pcs(2pcs input, 2pcs output), optional
	Gigabyte network ouput port	4pcs, standard
	Optical fiber output port	1pcs, optional
	COM port	1pcs
	LAN port	1pcs
Dimension(mm)	483x400x44 (W*D*H, 1U)	
Weight(Kg)	6.15Kg	
Working environment	Work Temp: -10~40°C/90%RH	Storage Temp: -30~60°C/90%RH
Input Voltage(V)	AC 100 - 240, 50/60Hz	
Input Current(A)	0.4A /50Hz-60Hz	

Other Features	
3D Display	Supporting 1080P@60Hz, Up, Down,Left and Right video format
Video Scaling	Yes
Video Splicing	Yes
Customize EDID	Yes



## Easy to manipulate

Web page login — No need to install setup software  
Quick connecting to screen, easy to use and control

The screenshot displays the AOTO LED Control system web interface. The interface is organized into several sections:

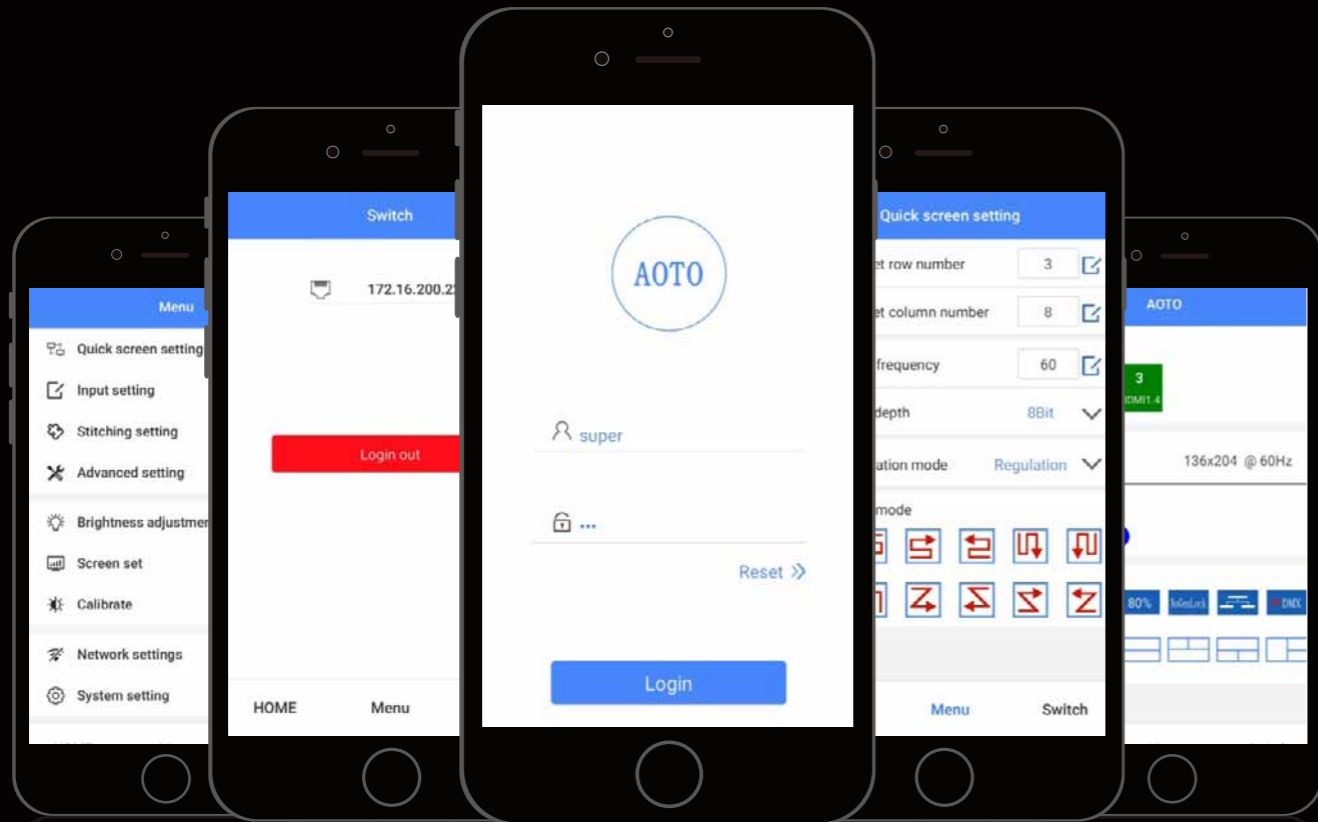
- Navigation Menu:** Includes HOME, Quick screen setting, Input setting, Stitching setting, Advanced setting, Brightness adjustment, Screen set, Calibrate, Network settings, Modify password, and the IP address 172.16.200.225.
- Input Section:** Features an 'Input' button and a grid of input options: 1 (HDMI 1.4), 2 (HDMI 2.0), and 3 (HDMI 1.4).
- Screen set Section:** Shows 'Screen set' with a resolution of 136x204 @ 60Hz.
- Port Section:** Includes a 'Port' button and four numbered port indicators (1, 2, 3, 4).
- Stitching Section:** Features a 'Stitching' button and six different stitching pattern icons.
- Status Table:**

Master	'Master' represents the current controller as the main controller and 'Backup' represents the current controller as a backup controller.
Brightness	The current brightness value is 80% .
Screen	The current screen is a normal screen.
NoGenLock	There is no GenLock signal input.

Being possessed of all the screens' setting function



Mobile terminal login — convenience and flexibility



Front panel control — optimization design, simple and easy to use

