

DS-C30S Series

Multi-Screen Video Wall Controller

The DS-C30S video wall controller is a new-generation pure hardware image processing device based on FPGA. Compared with the traditional controller, the device has a brand-new system structure and adopts data dual exchange technology to support large-capacity data transmission and processing. With high image processing performance, the device supports the access and real-time processing of multi-channel high definition and ultra-high definition signals. Adopting the structure of main control board plus input and output board, which can be configured as required, the device supports multi-screen management and layout by schedules. This product is mainly used in large-screen splicing control system and considered the core control device of the system.



Features and Functions

- Adopting the structure of main control board plus input and output board, and supporting mixed insertion of input and output boards, supports displaying multiple dynamic images on multiple display terminals at the same time.
- A signal source can be displayed on the $M \times N$ ($M \geq 1$, $N \geq 1$) display units.
- Multiple signal sources are supported, including VGA, DVI, HDMI, DP and IP. Supports 4K@60 Hz input, transmission and output.
- Supports decoding national standard stream. The decoding board supports h.264/h.265 encoding format. Supports 16 channels 1080P@30 network signal decoding and displaying on the wall, and the local video file playback displaying on the wall.
- Supports 1/4/9/16 image division of a single output interface, and the full screen switching of sub windows.
- Up to 8+2 image layers can be displayed on one screen, including one caption layer and a background layer. The virtual LED font and the background color is adjustable. Supports the scrolling mode. The resolution of background layer is up to 16384 × 8192.
- Users have the permission to manage the signal sources and video wall.
- Built-in matrix feature for opening a signal source on several windows simultaneously.
- Supports crossing-window video roaming.
- Supports SADP searching active IP address and resetting the password of administrator.
- Supports the adjustment of display wall connection to match the virtual display wall window of client software with the output interface of controller.
- The client software supports the preview of the signal displaying on the wall. Users can conveniently call the signal.
- A single device supports 8 video wall management.
- Supports the front and rear ventilation of the chassis. Self-adaptive heat dissipation according to the temperature.
- Supports video wall echo and signal source list preview.
- Fluent video output without frame extraction to guarantee the lossless output of 60 frames.



Available Model

Host System (Standard)		
Name	Model	Description
Main Chassis	DS-C30S-S11	11, sub board slots, 1, switch board slot, 2, main control slots
Main Chassis	DS-C30S-S23	23, sub board slots, 1, switch board slot, 2, main control slots
Main Control Board	DS-C30S-MCU	1, RS232 interfaces, 1, USB, 1, UTP network interface, Supports dual main control hot backups.
Switch Board	DS-C30S-SW	2, RS232 serial interfaces, 1, RS485 serial interface, 1, USB, 2, UTP network interfaces, 1, 10 Gigabit optical port
Functional Sub Boards		
Name	Model	Description
HDMI Input Board	DS-C30S-04HI	4, HDMI input interfaces
VGA Input Board	DS-C30S-04VI	4, VGA input interfaces, 1, Mini-DP four-in-one Line-in video input interface, The external adapter is required to input audio.

DVI Input Board	DS-C30S-04DI	4, DVI-D input interfaces, 1, Mini-DP four-in-one Line-in audio input interface, The external adapter is required to input audio.
HDMI UHD Input Board	DS-C30S-02HI/4K	2, HDMI UHD input interfaces
DP Input Board	DS-C30S-02DPI/4K	2, DP input interfaces, Supports audio composite input.
DVI Output Board	DS-C30S-04DO	4, DVI-D input interfaces, 1, Mini-DP four-in-one Line-in audio input interfaces, The external adapter is required to input audio.
HDMI Output Board	DS-C30S-04HO	4, HDMI output interfaces
LED Sending Card Output Board	DS-C30S-L104	4, Mini SAS output interfaces, 20, 1G optical output interfaces, 1, 3.5 mm audio output interface
Decoding Board	DS-C30S-DEC	32, decoding channels, Supports up to 1600 w decoding (only one channel is available), 32, audio decoding

Specifications

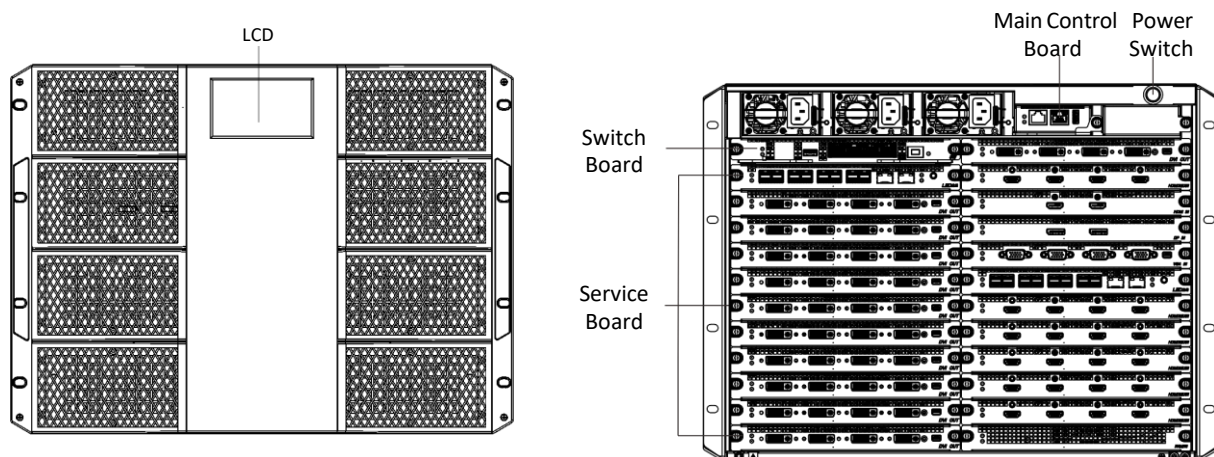
DS-C30S			
Model		DS-C30S-S11L	DS-C30S-S23L
Device Features	Screen Size	105.42 mm (length) × 67.07 mm (width)	105.42 mm (length) × 67.07 mm (width)
	Screen Resolution	480 × 272	480 × 272
Device Parameters	Power Interface	AC 100 ~ 240 V, 50/60 Hz	AC 100 ~ 240 V, 50/60 Hz
	Dimension	447 mm (depth) × 207.8 mm (height) × 442 mm (width)	447 mm (depth) × 354.8 mm (height) × 442 mm (width)
	Chassis Height	Rack 4.5U, Form factor	Rack 8U, Form factor
	Power Supply Number	100 to 240 VAC, 50 to 60Hz. 1+2 redundant power supplies	100 to 240 VAC, 50 to 60Hz 2+1 redundant power supplies
	Power Waste	≤600 W (full-loaded)	≤1000 W (full-loaded)
Chassis Parameters	Bus Type	10 Gigabit network switching	10 Gigabit network switching
	Slot Number	sub board slot × 11, switching board slot × 1, main control board slot × 2	sub board slot × 23, switching board slot × 1, main control board slot × 2
	Management Network Interface	2, 10 M/100 M/1000 M self-adaptive Ethernet interfaces 1, 10 Gigabit optical interface	2, 10 M/100 M/1000 M self-adaptive Ethernet interfaces 1, 10 Gigabit optical interface

	Weight (full-loaded)	≤40 KG (full-loaded)	≤60 KG (full-loaded)
Environment Parameters	Working Temperature	0 °C ~ 50 °C	0 °C ~ 50 °C
	Working Humidity	10 ~ 90% (non-condensing)	10 ~ 90% (non-condensing)
Main Control Board (DS-C30S-MCU)	Serial Interface	RS232	
	USB	USB c	
	Network Interface	UTP Network Interface x 1	
Switch Board (DS-C30S-SW)	Serial Interface Number	3	
	Serial Interface	RS232, RS232, RS485	
	USB	USB x 1	
	Network Interface	UTP x 2, 10 Gigabit optical interfaces	
	Exchange Capability	total broadband 1.2Tb	
HDMI Input Board (DS-C30S-04HI)	Input Resolution	1024 x 768@60 Hz, 1280 x 1024@60 Hz, 1366 x 768@60 Hz, 1440 x 900@60 Hz, 1680 x 1050@60 Hz, 1280 x 960@60 Hz, 1600 x 1200@60 Hz, 1280 x 720P@50 Hz, 1280 x 720P@60 Hz, 1920 x 1080P@50 Hz, 1920 x 1080P@60 Hz, 1920 x 1200@60 Hz	
	Video Input Interface Number	4	
	Video Input Interface Type	HDMI	
	Audio Input Interface Number	4	
	Audio Input Interface Type	miniDP to 4 x 3.5 mm	
VGA Input Board (DS-C30S-04VI)	Input Resolution	1024 x 768@60 Hz, 1280 x 1024@60 Hz, 1366 x 768@60 Hz, 1440 x 900@60 Hz, 1680 x 1050@60 Hz, 1280 x 960@60 Hz, 1600 x 1200@60 Hz, 1280 x 720P@50 Hz, 1280 x 720P@60 Hz, 1920 x 1080P@50 Hz, 1920 x 1080P@60 Hz, 1920 x 1200@60 Hz	
	Video Input Interface Number	4	
	Video Input Interface Type	VGA	
	Audio Input Interface Number	4	
	Audio Input Interface Type	miniDP to 4 x 3.5 mm	
DVI Input Board (DS-C30S-04DI)	Input Resolution	1024 x 768@60 Hz, 1280 x 1024@60 Hz, 1366 x 768@60 Hz, 1440 x 900@60 Hz, 1680 x 1050@60 Hz, 1280 x 960@60 Hz, 1600 x 1200@60 Hz, 1280 x 720P@50 Hz, 1280 x 720P@60 Hz, 1920x1080P@50 Hz, 1920 x 1080P@60 Hz, 1920 x 1200@60 Hz	
	Video Input Interface Number	4	
	Video Input Interface Type	DVI-D	

	Audio Input Interface Number	4
	Audio Input Interface Type	miniDP to 4 x 3.5 mm
HDMI UHD Input Board (DS-C30S-02HI/4K)	Input Resolution	1920 x 1080P@60 Hz, 1920 x 1200@60 Hz, 3840 x 2160@30 Hz, 4096 x 2160@30 Hz, 3840 x 2160@60 Hz (only supported by interface 1), 4096 x 2160@60 Hz (only supported by interface 1) Supports custom resolution: width 1920 ~ 4092, height 1080 ~ 2160, frame rate 30/60. Only supports frame rate of 60 when the width is less than 2560 or the height is less than 1940.
	Video Input Interface Number	2
	Video Input Interface Type	HDMI
DP Input Board (DS-C30S-02DPI/4K)	Input Resolution	1920 x 1080P@50 Hz, 1920 x 1080P@60 Hz, 1920 x 1200@60 Hz, 3840 x 2160@30 Hz, 3840 x 2160@60 Hz (only supported by interface 1), 4096 x 2160@30 Hz, 4096 x 2160@60 Hz (only supported by interface 1) Supports custom resolution: width 1920 ~ 4092, height 1080 ~ 2160, frame rate 30/60. Only supports frame rate of 60 when the width is less than 2560 or the height is less than 1940.
	Video Input Interface Number	2
	Video Input Interface Type	DP
DVI Output Board (DS-C30S-04DO)	Output Resolution	1920 x 1200@60 HZ, 1600 x 1200@60 Hz, 1920 x 1080@60 Hz, 1680 x 1050@60 Hz, 1280 x 720@60 Hz, 1280 x 1024@60 Hz, 1024 x 768@60 Hz Supports LED screen and custom resolution output. Can be configured with maximum area length x width less than 260 W.
	Video Output Interface Number	4
	Video Output Interface Type	DVI-D
	Audio Output Interface Number	4
	Audio Output Interface Number	miniDP to 4 x 3.5 mm
HDMI Output Board (DS-C30S-04HO)	Output Resolution	1920 x 1200@60 HZ, 1600 x 1200@60 Hz, 1920 x 1080@60 Hz, 1680 x 1050@60 Hz, 1280 x 720@60 Hz, 1280 x 1024@60 Hz, 1024 x 768@60 Hz Supports LED screen and custom resolution output. Can be configured with maximum area length x width less than 260 W.
	Video Output Interface Number	4
	Video Output Interface Type	HDMI
LED Sending Card	Output Resolution	width (144 ~ 8192), height (144 ~ 4320), the total pixel point should be less than 1040 W

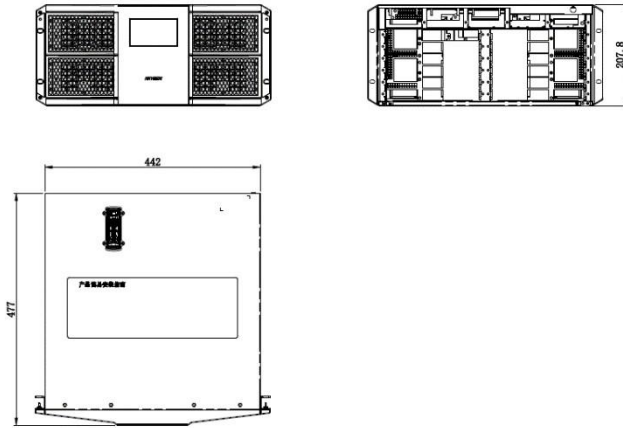
Output Board (DS-C30S-L104)	Video Output Interface Number	4 x miniSAS to 20 x 1G electrical interfaces, 2 x 10G optical interfaces
	Video Output Interface Type	miniSAS to 5 x RJ45, 10G optical port
	Audio Output Interface Number	1
	Audio Output Interface Type	3.5 mm audio terminal
Decoding Board (DS-C30S-DEC)	Audio Decoding Channel Number	32
	Audio Decoding Performance	audio encoding format G711-A, G711-U, G722.1, G726-16/U/A, MPEG, AAC-LC
	Audio Decoding Format	audio encoding format G711-A, G711-U, G722.1, G726-16/U/A, MPEG, AAC-LC
	Decoding Resolution	Supports decoding up to 1600W pixels (one channel)
	Decoding Channel	Supports Up to 32 decoding channels.
	Decoding Performance	A single board supports 16 x 1080P30, 32 x 720P@30. Supports decoding up to 1600W pixels.

Physical Interface



Dimension

DS-C30S-S11



DS-C30S-S23

