

Video broadcast control server

S12-FHD



Specification Documents

Revision History

Release version	Release date	Update notes
V1.0	2021-08-31	• First release
V1.1	2022-06-15	• Update the power/graphics /VGA/COM port
V1.2	2022-09-06	• Updated appearance parameters/System description
V1.3	2023-05-22	• Add a T1000 graphics card as a display • Change the broadcast control system to window version

Product Introduction

S12-FHD video server is a multimedia integrated broadcast control server for large-scale LED broadcast control scenarios such as multimedia exhibition halls, banquet halls, and live performances. It has the signal processing capability of traditional multi-picture splicing processor, and integrates the media editing function of professional stage performance and the lighting arrangement control function. It can not only achieve high quality and ultra-high resolution point-to-point display, but also achieve a variety of display creativity. S12-FHD video server with professional LED broadcast control software, to provide users with convenient scene management and professional LED human-computer interaction interface, suitable for performing arts, exhibitions, large buildings and a variety of creative display application scenarios.

Certification

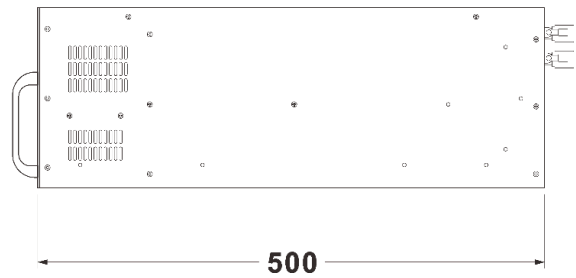
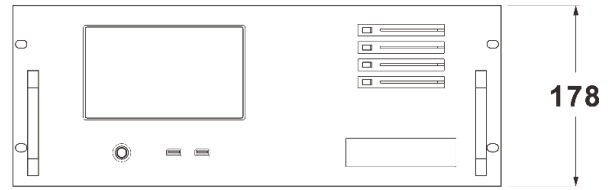
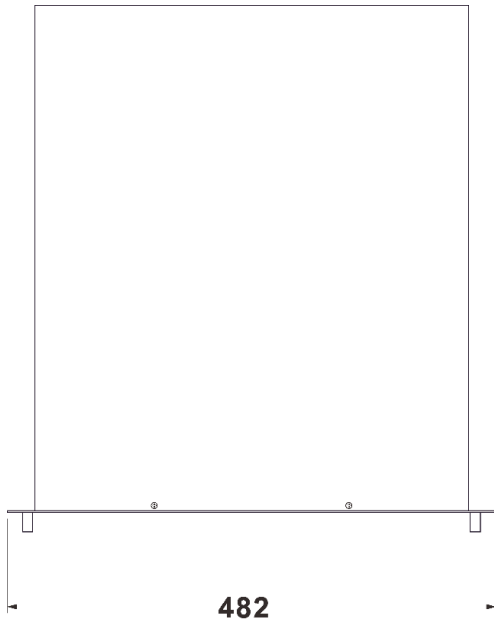
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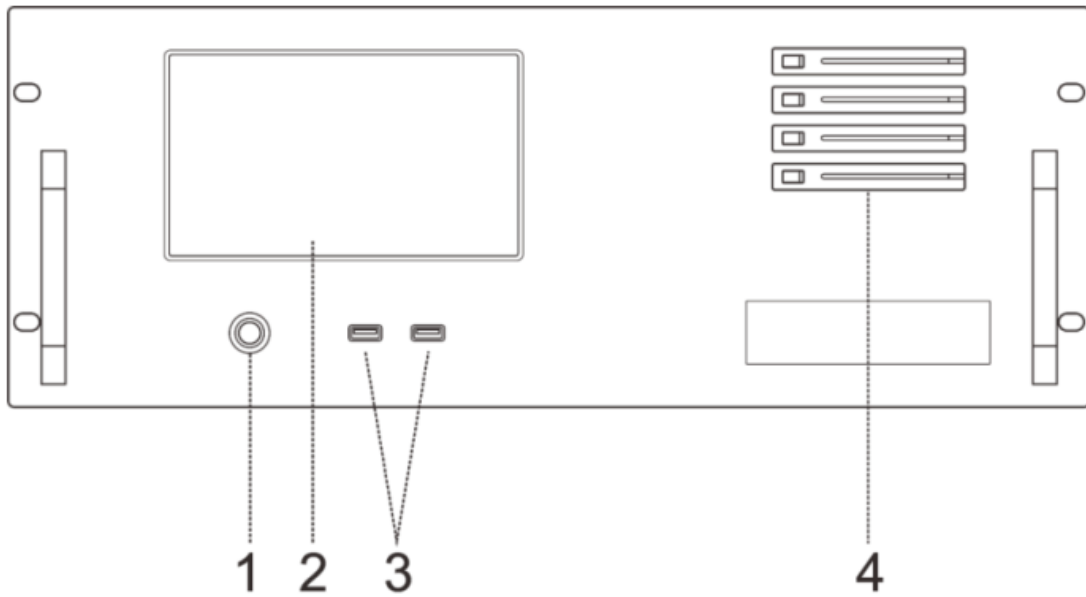
Product Features

- Single outlet with maximum load width 4096Px, maximum height 2160Px, in the range of 8.84 million Px user-defined.
- The machine carries up to 99 million pixels and supports customization.
- Supports multi-channel 8K/4K/2K hardware decoding capabilities.
- Video input: 4K/2K input is optional.
- Number of input channels: 1-4 HDMI/DVI/SDI Optional.
- Supports multiple HDMI/DVI/SDI signal input 2K/4K custom acquisition card (optional).
- support tablet central control playback;
- Supports TCP/UDP network commands.
- supports screen rotation at any Angle, suitable for a variety of creative display applications;
- LTC Time code synchronization;
- 1000W server power supply.
- 3D mapping;
- Built-in universal decoder, can decode HAP, DXV, HEVC and other common and professional video formats.

Product Dimensions

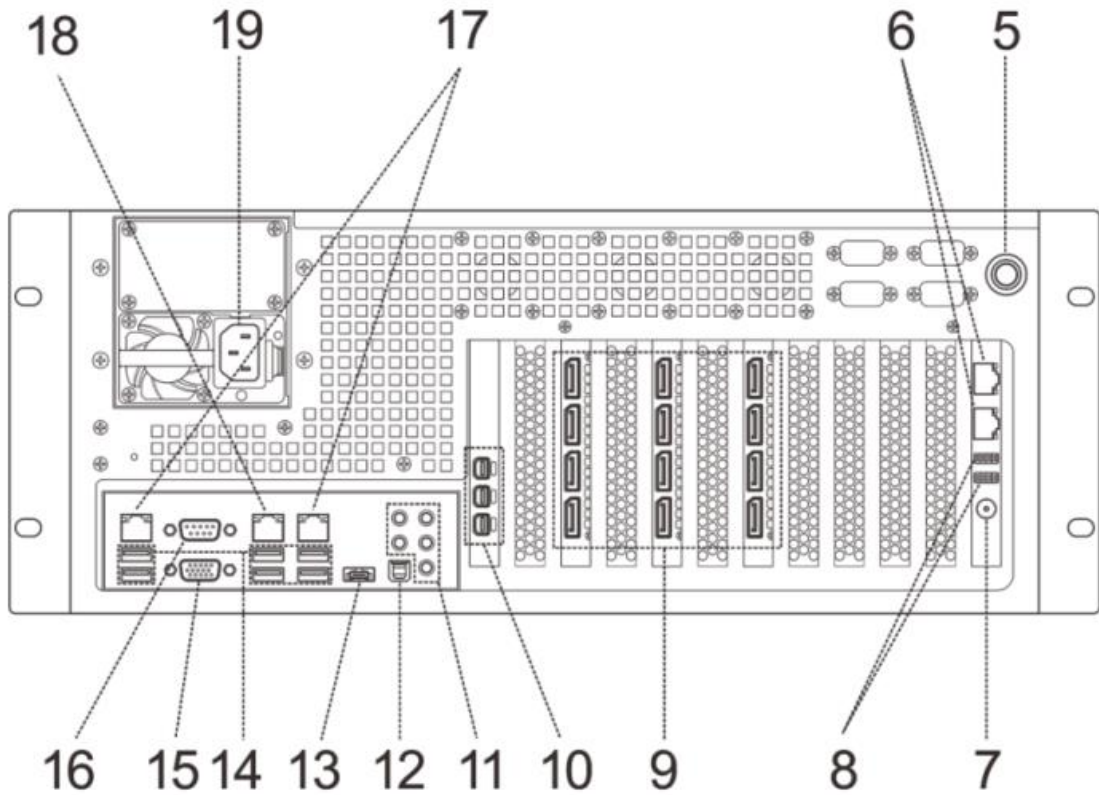


Product Appearance



Front panel

Serial No.	Interface	Quantity	Description
1	Switch on/off button	1	• Turn on or off
2	7 inch touch screen	1	• Display server information, status
3	USB	2	• Front-facing USB3.0 interface
4	Front Hard Drive	1	• Supports 2.5-inch SATA interface HDD or SSD



Back panel

Serial No.	Interface	Quantity	Description
5	Reset key	1	• BIOS Settings reset/reset (do not use in power-on or power-on state)
6	Synchronization card FL port	2	• Used for synchronization between card cascade
7	Synchronous signal interface	1	• Frame synchronization signal input
8	Sync card indicator light	2	• Synchronization card status indicator
9	DP output	12	• DP1.4 output *12
10	Mini output	3	• Mini DP*4
11	Audio frequency	5	• 3.5 mm Audio and microphone
12	Audio output	1	• Audio fiber output
13	Type-C Port number	1	• Type-C port
14	USB	6	• USB ports *6
15	VGA	1	• Debug port
16	COM port	4	• COM port
17	RJ45 port	2	• Network port *2
18	IPIM port	1	• IPIM management port
19	Power supply input	1	• AC 220-240 AC 50/60Hz

Device hardware/software

Hardware parameter			
CPU:	INTEL XEON W3335 processor /16 core 32 threads/main frequency 3.4GHz/ Rui frequency 4.0GHz		
Memory:	64GB DDR4 RECC		
Storage:	2TB Nvme M.2 SSD with a 2.5-inch hot-swappable hard drive.		
Control graphics card:	NVIDIA T1000		
Output graphics card:	3 x NVIDIA RTX A4000 16GB professional graphics card		
Synchronization card	NVIDIA SYNC II Sync card		
Collection card:	Support HDMI/DVI/SDI multiple signal input 2K/4K custom acquisition card (optional)		
Power Supply:	1250W server power supply		
Software			
Operating system:	Windows 10 Enterprise Edition	Broadcast control system:	LED broadcast control system (window version)
Power source			
Input power supply:	220-240V AC ~ 50/60hz		
Maximum power:	1250W		

Equipment specification

Electrical specification	220-240V~ 6A 50/60Hz; 1250W maximum power
Installation specification	4U rack mounting (based on site conditions)
Size specification	580 mm(length)×482 mm(width)×178 mm(height)
Working environment	Temperature: 5-35°C (40°-95°F), humidity: 5%-95% (non-condensing)
Storage environment	-10°C ~ +60°C; 0%RH to 95%RH, non-condensing
Package size	678 mm(length)×548 mm(width)×265 mm(height)
Accessories	Power cable *1, Network cable *1, test report *1, test report *1, Certificate *1, packing list *1, mouse and keyboard set *1, wireless network card *1, DP cable *12, miniDP to HDMI cable *1, HDMI cable *1, Activation label *1 (attached to the front panel of the chassis)

Media Type

Media type	Media format
Video	mp4、avi、mkv、flv、mov、wmv、mpeg、mpg、m4v、webm、HAP
Audio frequency	mp3、aac、flac、amr、ape、wav、wma
Picture	jpg、jpeg、bmp、png、gif、ico
Text	Txt
Streaming media	Ndi、http、rtsp、rtp、rtcp、rtmp、mms、hls
WEB	Supports access to any web page
Office file	PPT (1080P)

i Notes

Video encoding format recommended:

- When the video size is above 4K, 8K or below, and the width does not exceed 8192 and the height does not exceed 4320, it is recommended to use H.265 (HEVC) encoding or VP9 encoding.
- When the video is 4K or below, H.264 (AVC) encoding is recommended.
- HAP encoding is recommended when the video is larger than 8K and the width is less than 15360 and the height is less than 7680.

For the best performance and picture quality, the recommended video source rate is as follows:

Video resolution	24-30 FPS (standard video)	48-60 FPS (high frame video)
4320P (8K)	70-100Mbps	100-140Mbps
2160P (4K)	35-45Mbps	55-70Mbps
1080P (2K)	10Mbps	16Mbps

The above is the recommended video bit-rate for SDR source

Functional support

Feature	Description
Mutual active and standby	Supports automatic active/standby switchover
Media support	Support PPT, web pages, videos, pictures, audio and other media playback
Slice mask	Supports the import of slice data and mask function
Matting function	Support chroma matting, support custom color matting
cascade	Support multi-machine cascade control
Frame synchronization	Support (upgrade required)
3D WEB broadcast control system	Supports multi-terminal control
24-244 Frame rate selection (Insert frame playback)	support
Central control System (Standard Edition)	support
The monitoring system is displayed	support
Interactive game	support
NDI acquisition	support
Streaming media	support
LTC/NTC time code	Supports receiving and sending time codes
DMX512	Support recording playback and broadcast control by DMX512 signal control
TCP/UDP protocol	You can send and receive TCP/UDP control commands

Packing List

Item	Quantity	Quantity	Unit
Mainframe	1	S12-FHD	Unit
Power cord	1	1.8m	Strip
HDMI cable	1	2m	Strip
Mini DP to HDMI cable	1	0.3m	Strip
DP line	12	2m	Strip
Wireless network card	1	USB wireless card	Piece
Keyboard and mouse	1	Dual Swift USB keyboard and mouse	Set
Certificate	1		Copy
Test report	1		Copy
Functional checklist	1		Copy
Packing list	1		Copy

i Notes

When using the device, place it horizontally. Do not turn it over or place it vertically.

The product can be installed in a 19-inch standard cabinet. The cabinet must bear at least four times the weight of all the devices in the cabinet. Use four M5 panel screws to secure the installation.

Statement and warning

This is A Class A product, which may cause radio interference in a domestic environment. In such cases, users may be required to take practical measures against their interference.

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