

Video broadcast control server

S4-FHD



Specification Documents



Revision History

Release version	Release date	Update notes
V1.0	2021-08-31	<ul style="list-style-type: none">• First release
V1.1	2022-06-15	<ul style="list-style-type: none">• Update the power/graphics /VGA/COM port
V1.2	2022-09-06	<ul style="list-style-type: none">• Update appearance parameters/system description
V1.3	2023-06-13	<ul style="list-style-type: none">• Added HDMI monitor ports• Added DIV display port• Add a T400 graphics card as a display• Change the broadcast control system to window version
V1.4	2023-07-25	<ul style="list-style-type: none">• Graphics card upgraded to NVIDIA RTX A2000 12GB
V1.5	2024-02-20	<ul style="list-style-type: none">• Graphics card upgraded to NVIDIA RTX4000 8GB stand-alone graphics card• Supports the master-slave mode, with one master and multiple slaves• Supports the active/standby mode• Extensible frame sync card

Product Introduction

S4-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. S4-FHD video server with professional LED broadcast control software, to provide users with convenient scene management and professional LED human-computer interface, suitable for performing arts, exhibitions, large buildings and a variety of creative display application scenarios.

Certification

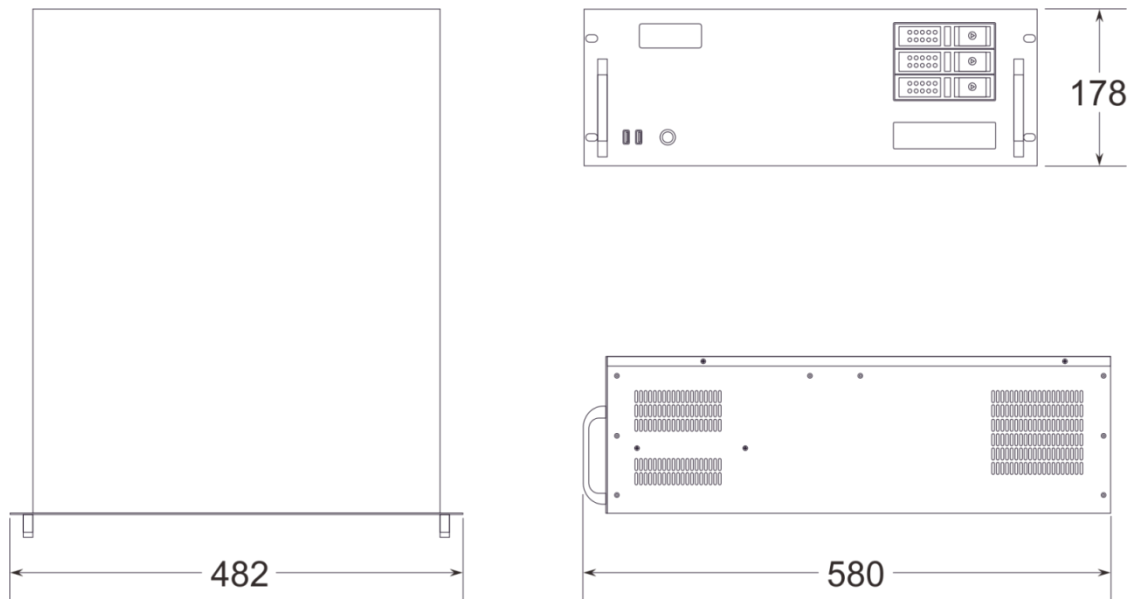
CCC、CE、Rohs

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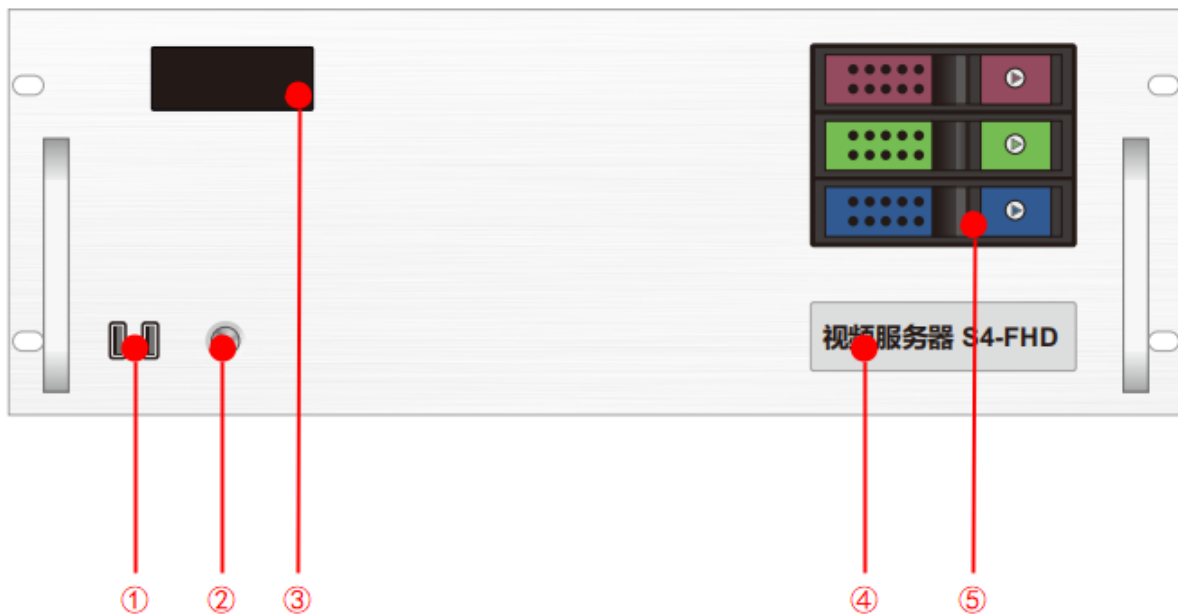
Product Features

- Single outlet with maximum load width 4096Px, maximum height 2160Px, in the range of 8.84 million Px user-defined.
- Machine load: maximum width of single screen 16384Px, maximum 4320Px, can be customized.
- Hardware decoding capability: 1 channel 8K hard decoding or 4 channel 4K hard decoding, support multi-channel 2K hard decoding.
- 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;
- 650W Server power supply.
- 3D mapping;
- Built-in universal decoder, can decode HAP, DXV, HEVC and other common and professional video formats.

Product Dimensions

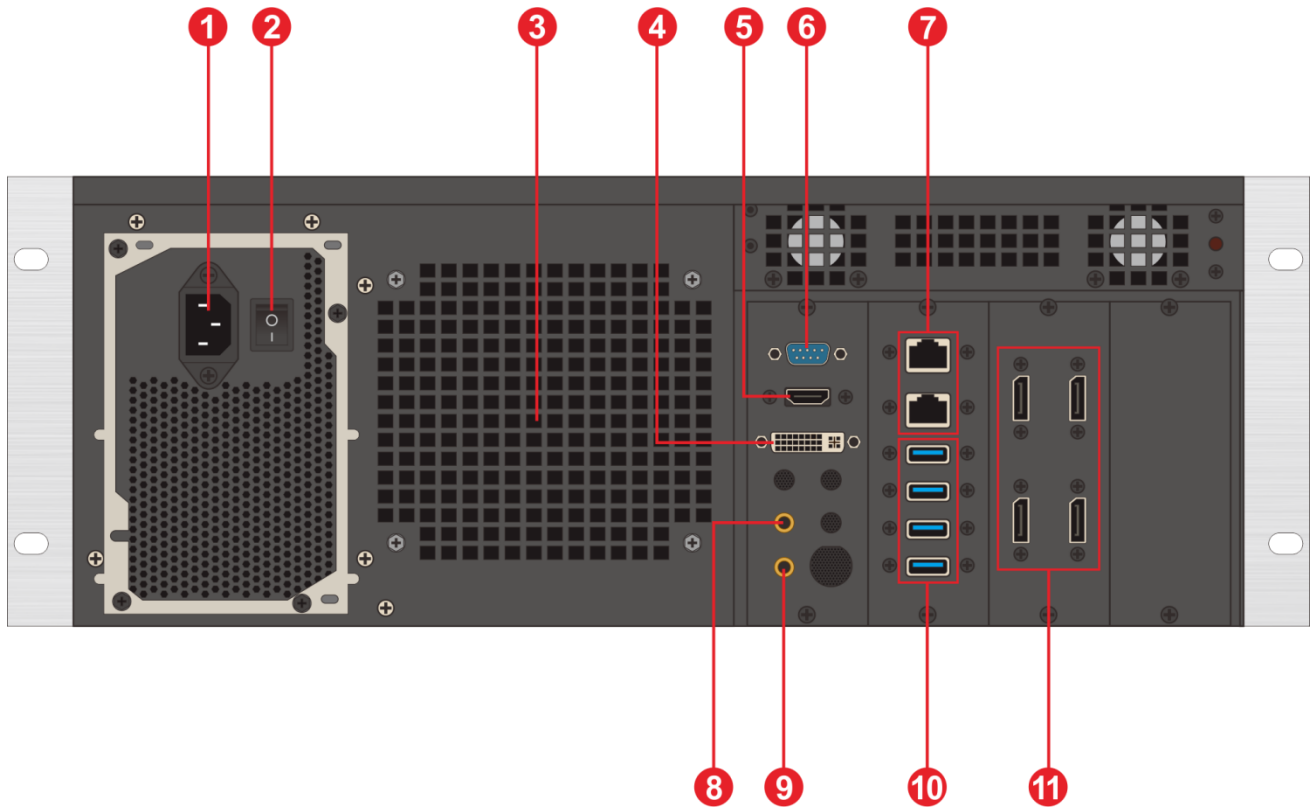


Product Appearance



Front panel

Serial No.	Interface	Quantity	Description
1	USB	1	<ul style="list-style-type: none"> Type-A USB3.0 *2 Connectable to mouse, keyboard
2	Switch button	1	<ul style="list-style-type: none"> Switch button
3	Temperature control display	1	<ul style="list-style-type: none"> Displays the server running time, temperature, cooling fan status, and abnormal alarm.
4	Identification	1	<ul style="list-style-type: none"> Identify the server model and name
5	Front hard disk box	3	<ul style="list-style-type: none"> Can install 3.5 inch, 2.5 inch SATA interface hard disk



Back panel

Serial No.	Interface	Quantity	Description
1	Power supply input	1	<ul style="list-style-type: none"> • Power input • 110V-240V 50/60Hz • Alternating current
2	AC Switch	1	<ul style="list-style-type: none"> • Main power switch
3	Heat vent	1	<ul style="list-style-type: none"> • Heat dissipation port of the CPU water-cooled radiator fan
4	DVI output	1	<ul style="list-style-type: none"> • Connect DVI monitor • Used to operate and edit broadcast control software
5	HDMI output	1	<ul style="list-style-type: none"> • Connect to HDMI display • Used to operate and edit broadcast control software
6	COM port	1	<ul style="list-style-type: none"> • COM interface • Connect to RS232/485 serial port devices
7	Network port	2	<ul style="list-style-type: none"> • 1GB RJ45 port *1 • 5GB RJ45 port *1
8	Audio output	1	<ul style="list-style-type: none"> • 3.5mm standard audio output
9	Microphone	1	<ul style="list-style-type: none"> • 3.5mm standard audio output • Microphone can be connected to input audio • Acceptable audio time code
10	USB	4	<ul style="list-style-type: none"> • Type-A USB3.0 x 4 • Can connect mouse, keyboard, U disk, mobile hard disk, wireless network card, etc
11	DP1.2	4	<ul style="list-style-type: none"> • Connect the monitor to display the software editing interface • Connect the sending card or display for output screen • Maximum output 4096*2160@60Hz

Device hardware/software

Hardware parameters				
CPU:	Intel ® Xeon ® W-2150B processor, base frequency 3.0GHz Rui frequency 4.50GHz 10 core 20 threads			
Memory:	32GB DDR4 RECC			
Storage:	M.2 512G Nvme, Hot-swappable hard drives can be added.			
Output graphics card:	NVIDIA RTX4000 8GB discrete graphics card			
Control graphics card:	NVIDIA T400 4GB professional graphics card			
Power Supply:	Great Wall 650W			
Chassis:	4U hot-swap chassis			
Radiator:	Water cooling (CPU), Air cooling (GPU)			
Software				
Operating System:	Windows 10 Enterprise Edition	Broadcast control system:	LED broadcast control system (window version)	
Power supply				
Input power supply:	110-220V AC ~ 50hz			
Maximum power:	650W			

Equipment specification

Electrical specification	110-240V~ 6A 50/60Hz; 650W maximum power
Installation specification	4U rack type installation (based on site conditions)
Dimensions	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
Packing 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 *4, 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	mp3、aac、flac、amr、ape、wav、wma
Picture	jpg、jpeg、bmp、png、gif、ico
Text	Txt
Streaming	Ndi、http、rtsp、rtp、rtcp、rtmp、mms、hls
Web page	Supports access to any web page
Office Files	PPT (1080P)

i Notes

Recommended video encoding formats:

- 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 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

Function support

Feature	Description
Mutual primary backup	Support automatic one master multiple backup
Master-slave mode	Support automatic one master multi slave
Media support	Support PPT, web pages, videos, pictures, audio and other media playback
Slice Mask	Supports the import of slice data and mask function
Image 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
Echo monitoring system	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	It supports sending TCP/UDP control commands and receiving TCP/UDP control commands.

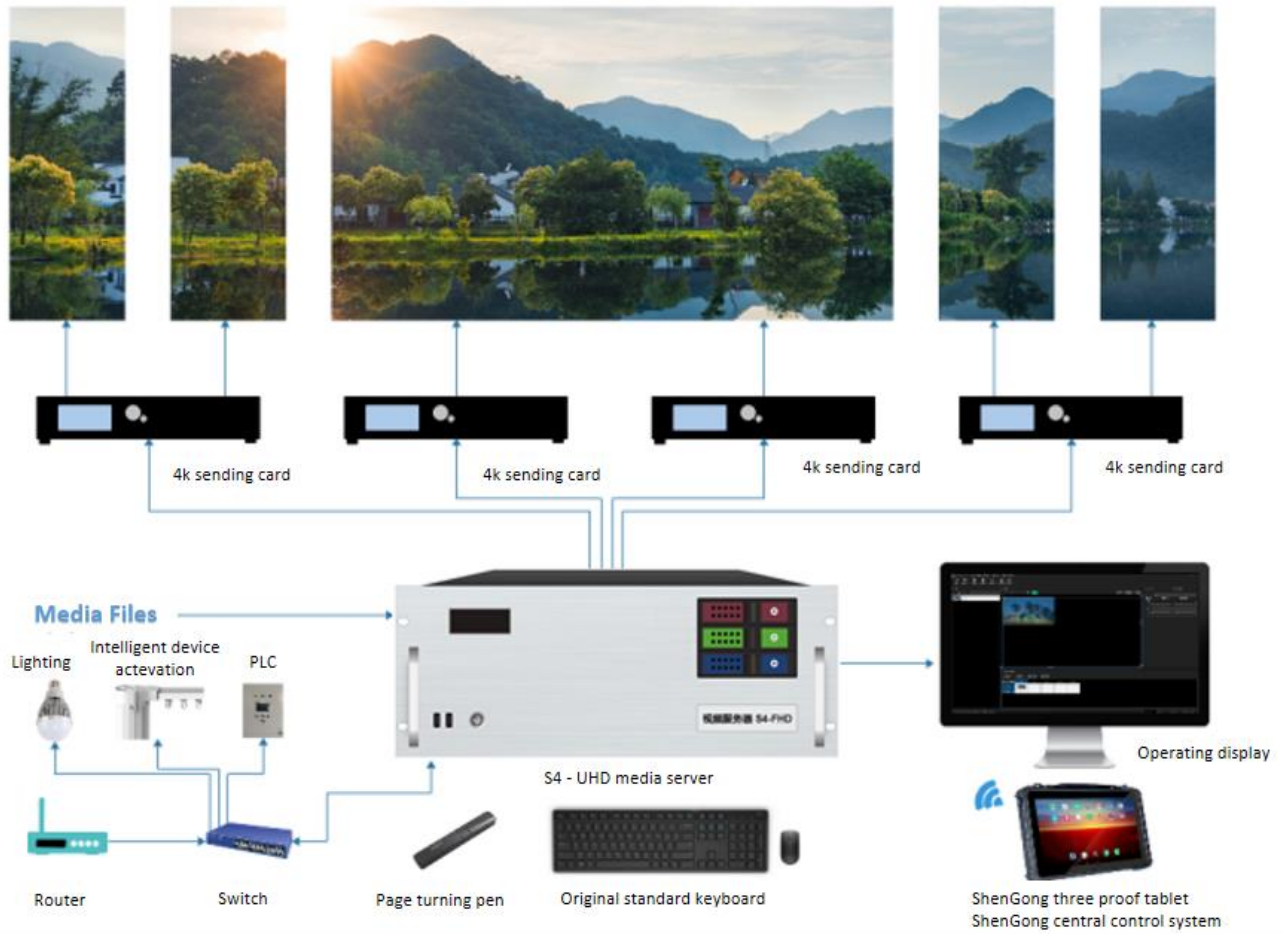


Packing list

Item	Quantity	Specifications	Unit
Mainframe	1	S4-FHD	Unit
Power supply cable	1	1.8m	Strip
HDMI cable	1	2m	Strip
DP cable	4	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



Application Scenario



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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