

Video Playback Control Server

S4-FHD Lite



Specification Document

Revision History

Release version	Release date	Update Notes
V1.0	2021-08-31	• First release
V1.1	2022-06-15	• Updated power/graphics/VGA/COM interfaces
V1.2	2022-09-06	• Updated appearance parameters/system introduction
V1.3	2023-06-13	• Added HDMI display port • Broadcast control system changed to Windows version
V1.4	2024-05-22	• Processor upgraded to Intel Xeon E-2174G • GPU upgraded to NVIDIA T1000 4GB

Product Introduction

S4-FHD lite video server is a multimedia integrated broadcast control server for large-scale LED broadcast control scene applications such as multimedia exhibition halls, banquet halls, and live performances. It has the signal processing capabilities of traditional multi-screen splicing processors, and integrates the media editing and broadcasting functions and lighting choreography control functions of professional stage performances. It can not only complete high-quality ultra-large resolution point-to-point display, but also realize a variety of display ideas. The S4-FHD lite video server is equipped with professional LED broadcast control software, providing users with convenient scene management and professional LED human-computer interaction interface, which is suitable for performing arts, exhibitions, large-scale buildings and various creative display application scenarios.

Certification

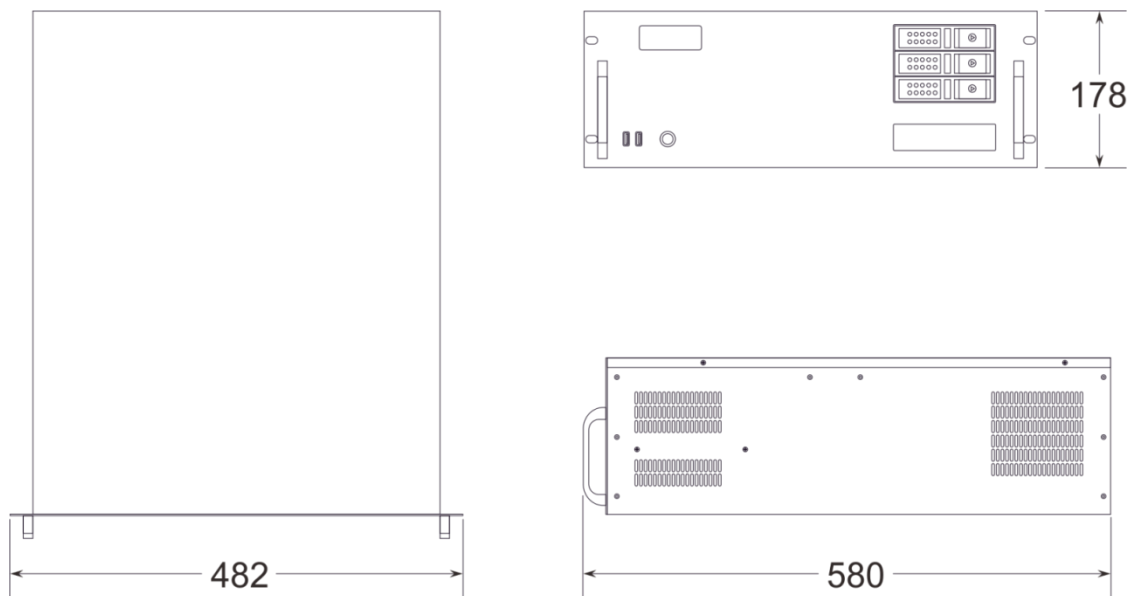
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If the product does not have the relevant certification of the country or region to which it is sold, please contact us for confirmation or processing as soon as possible, otherwise, if the relevant legal risks are caused, the customer shall bear it or we has the right to recover.

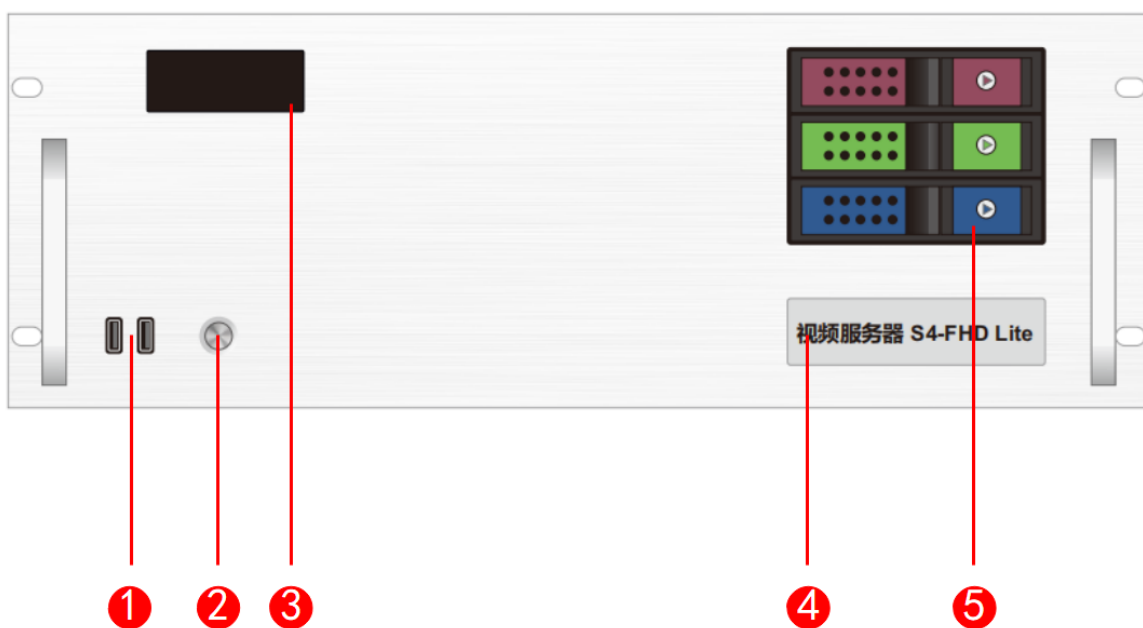
Product Features

- Single output port supports a maximum width of 4096Px and a maximum height of 2160Px, with customizable dimensions within 8.84 million pixels.
- Whole machine capacity: single screen maximum width of 16384Px, maximum height of 4320Px, customizable.
- Hardware decoding capability: 3 channels of 4K hardware decoding, supporting multiple channels of 2K hardware decoding.
- Video input: optional 4K/2K input.
- Number of input channels: 1-4 channels HDMI/DVI/SDI optional.
- Supports HDMI/DVI/SDI multiple signal inputs, 2K/4K custom capture card (optional).
- Supports tablet central control playback.
- Supports TCP/UDP protocol network commands.
- Supports arbitrary angle rotation of the screen, suitable for various creative display applications.
- LTC timecode synchronization.
- 650W server power supply.
- Supports 3D mapping.
- Built-in universal decoder, capable of decoding common and professional video formats such as HAP, DXV, and HEVC.

Product Dimensions

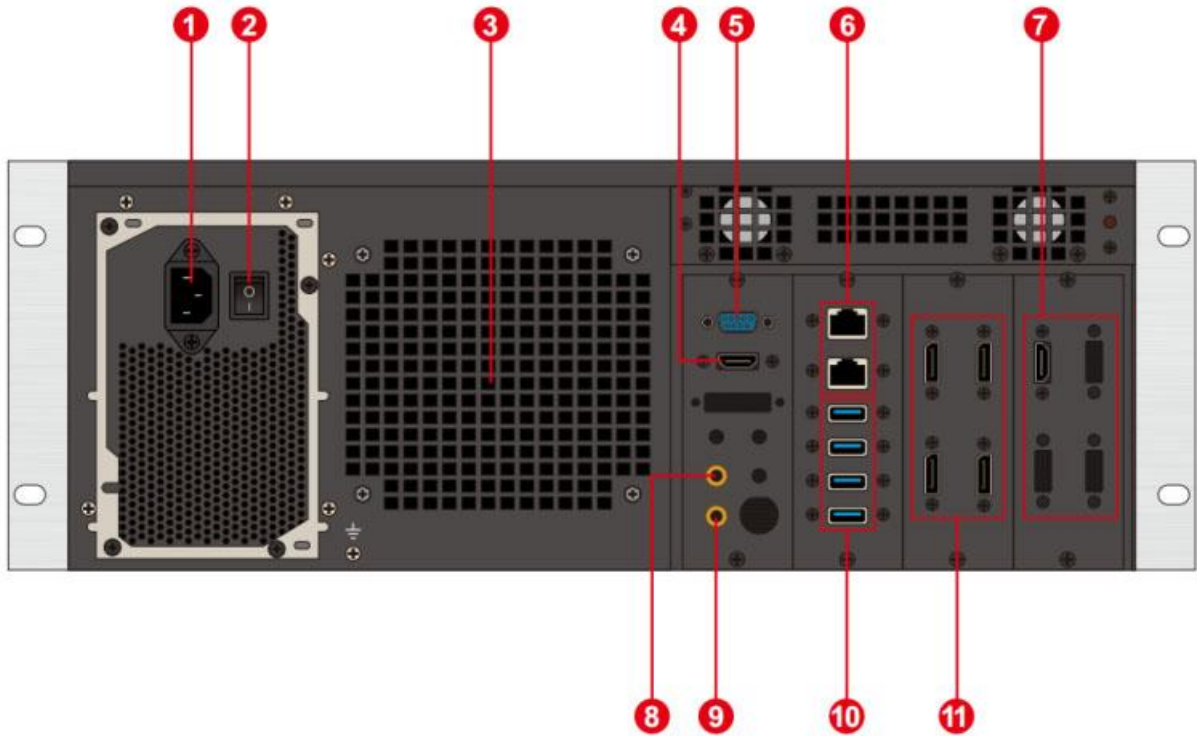


Product Appearance



Front Panel

Index	Interface	Quantity	Illustrate
1	USB	2	<ul style="list-style-type: none"> Type-A USB3.0 *2 Connectable to mouse, keyboard
2	Switch buttons	1	<ul style="list-style-type: none"> Switch button
3	Temperature control display screen	1	<ul style="list-style-type: none"> Displays server runtime, temperature, fan status, abnormal alarms
4	Identification	1	<ul style="list-style-type: none"> Server model and name identification
5	Front hard drive bay	3	<ul style="list-style-type: none"> Installable with 3.5-inch, 2.5-inch SATA interface hard drives



Back Panel

Index	Interface	Quantity	Illustrate
1	Power input	1	<ul style="list-style-type: none"> • Power input • 110V-240V 50/60Hz • AC power
2	AC switch	1	<ul style="list-style-type: none"> • Power master switch
3	Heat vents	1	<ul style="list-style-type: none"> • CPU liquid cooling radiator fan heat dissipation port
4	HDMI output	1	<ul style="list-style-type: none"> • Connect to HDMI monitor • Used for operating editing and control software
5	COM port	1	<ul style="list-style-type: none"> • COM interface • Connects to RS232/485 protocol serial port devices
6	Network ports	2	<ul style="list-style-type: none"> • 1GB RJ45 ports
7	HDMI input	1	<ul style="list-style-type: none"> • Connects to HDMI signal input • Maximum resolution 1920x1080
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 • Connects to microphone input audio • Accepts audio timecode
10	USB	4	<ul style="list-style-type: none"> • Type-A USB3.0 *4 • Connects to mouse, keyboard, USB drive, external hard drive, wireless network card, etc.
11	DP1.2	4	<ul style="list-style-type: none"> • Connects to monitor for displaying software editing interface • Connects to sending card or display screen for outputting images • Maximum output 4096*2160@60Hz

Device Hardware/Software

Hardware Parameters			
CPU:	Intel Xeon W-2150B@ 3.00GHz, 10 cores, 20 threads, Turbo Boost up to 4.5GHz		
Memory:	16GB DDR4		
Storage:	500GB SSD solid-state drive, supports additional hot-swappable hard drives		
Output Graphics Card:	NVIDIA T1000 4GB professional graphics card		
Control Graphics Card:	INTEL P630		
Power supply:	Great Wall 650W		
Chassis:	4U hot-swappable chassis		
Radiator:	Water-cooled (CPU), air-cooled (GPU)		
Software			
Operating system:	Windows 10 Enterprise	Broadcast Control System:	LED Broadcast Control System (Window Version)
Power supply			
Input Power:	110-220V AC ~ 50Hz		
Maximum Power:	650W		

Equipment specifications

Electrical Specifications	110-240V~ 6A 50/60Hz ; 650W maximum power
Installation Specifications:	4U rack-mounted installation (according to the site situation).
Dimensions	580mm (length) × 482mm (width) × 178mm (height)
Working environment	Temperature: 5-35°C (40°-95°F), Humidity: 5%-95% (non-condensing).
Storage environment	-10°C ~ +60°C ; 0%RH ~ 95%RH, non-condensing
Package size	678mm (length) × 548mm (width) × 265mm (height).
Fittings	Power cord *1, Ethernet cable *1, Inspection report *1, Test report *1, Certificate of conformity *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
Image	jpg、jpeg、bmp、png、gif、ico
Text	Txt
Streaming	Ndi、http、rtsp、rtp、rtcp、rtmp、mms、hls
Web page	Any web page that can be accessed
Office files	PPT (1080P)

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Video encoding format recommendation:

- If the video is between 4K and 8K in size, with a width of 8192 or less and a height of 4320, H.265 (HEVC) or VP9 encoding is recommended.
- When the video is 4K or smaller, H.264 (AVC) encoding is recommended.
- If the video is over 8K and the width is not more than 15,360 and the height is not more than 7,680, it is recommended that the video be encoded in HAP.

For the best performance and image quality, the recommended video source bitrate 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 bitrate for SDR sources

Function Support

Function	Illustrate
Media support	Supports playback of various media such as PPT, web pages, videos, images, and audio
3D WEB broadcast control system	Supports multi-terminal control
24-244 Frame Rate Selection (Frame Interpolation Playback)	Supports
Central Control System (Standard Version)	Supports
Preview Monitoring System	Supports
Interactive games	Supports
NDI Capture	Supports
Streaming Media Playback	Supports
LTC/NTC Timecode	Supports receiving and sending timecode
DMX512	Supports recording, playback, and control of DMX512 signals
TCP/UDP Protocol	Supports sending TCP/UDP control commands and receiving TCP/UDP control commands

Packing list

Item	Quantity	Specification	Unit
Host	1	S4-FHD lite	Unit
Power cord	1	1.8 meters	Strip
HDMI cable	1	2 meters	Strip
DP line	3	2 meters	Strip
Wireless network card	1	USB wireless network card	Piece
Keyboard and mouse	1	Dual delphinium USB keyboard mouse	Set
Certificate	1		Copy
Test report	1		Copy
Functional checklist	1		Copy
Packing list	1		Copy

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When using the device, place the device horizontally, do not flip or place it vertically.

The product can be installed in a standard 19-inch cabinet. The cabinet load requirement is at least four times the weight of all equipment in the cabinet. It needs to be installed with 4 M5 panel screws.

Affirmations and Warnings

This is a Class A product. In a residential environment, this product may cause radio interference. In such cases, users may need to take practical measures to address the interference.

Disclaimer

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