



SH3 SPECIFICATION

Splicing servers



Version: v2.0

Release date: April 2025

Revision History

VERSION	Summary of Revision Content	Revision date	Revised by
V2.0.0	Optimized the format of function description and specification Optical output boards are supported	2025-04-28	-
V1.1.2	Updated 4K board silk screen printing and the rear panel of the whole machine Optimized the description of echo display and monitoring	2024-11-11	-
V1.1.1	Update features	2024-01-26	-
V1.1.0	Updated the whole machine to support video output boards	2024-09-10	-
V1.0.0	Initial release	2023-12-12	-

Product Overview

SH3 splicing server is a professional video processing and control equipment, pure hardware FPGA design architecture, modular design, comprehensive input and output interfaces, can be flexibly configured according to different project application requirements. It can be widely used in TV stations, dispatch rooms, command centers, exhibition halls, conference rooms, stage performances, data centers, multi-function halls and other scenarios.

SH3 splicing server supports 8K ultra-high-definition video access, multi-screen and multi-layer management, input and output EDID management, input preview, 3D output, and Genlock genlock, meeting the needs of diverse and complex projects.

Product Certification

CCC、 ROHS

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

Features:

The 3U chassis is flexible and expandable, and it is super loaded

- The card supports 8 2K@60Hz inputs.
- The single board supports 2 4K@60Hz inputs and supports up to 8K ×2K@60Hz inputs.
- The single board supports 10 network port outputs, with a maximum load of 6.5 million pixels.
- The whole machine supports 40 2K@60Hz inputs and 56 network port outputs at the same time, with a maximum load of 36.8 million pixels

8K input, massive layers

- The single channel supports DP1.4 input, and the maximum resolution supports 8K ×4K@30Hz.

- A maximum of 32 2K@60Hz layers, 16 4K@30Hz layers, or 8 4K@60Hz layers can be used on a single board.
- A single machine supports up to 32 2K layers.

Innovative architecture, layer sharing

- The unique hardware architecture design and the whole machine build a layer resource pool to realize the sharing of layer resources of the whole machine.

Web control, convenient and fast

- There is no need to install software, and it is controlled by the web side, which is not limited by the operating system and operating platform.
- The operation is simple and fast, real-time response, and easy configuration of complex scenes.
- There is no need for an external monitoring board to realize the real-time preview function.

A variety of management methods, easy to manage

- Scene management
 - Different preset parameters can be saved as scenes, and one-click calls for single-screen scenes and multi-screen scenes can be supported, so you can switch them calmly.
- Group screen management
 - It supports up to 8 groups of screen management, and the output resolution of each group of screens can be customized, making it easy to complete the display control of complex scenes.

Diversified display, rich vision

- Scroll the subtitles

- Subtitles can be displayed statically or dynamically scrolled, and users can set the font, subtitle background, scrolling form, etc.
- A maximum of 4 subtitles are supported on a single screen.
- Seamless switching
 - When switching signals or invoking scenes, there is no black screen, no flicker, and no stuttering in the whole process.

Intelligent monitoring and backup, stable and reliable

- Real-time monitoring of hardware
 - It supports hardware monitoring, including real-time monitoring of the temperature and voltage, firmware version, running status, and fan speed of each hardware module.
- Remote upgrades are supported
 - Program upgrades can be carried out remotely, and system maintenance is simple.
- Support input module and output module backup
 - Automatic switching in case of failure, double guarantee of system operation, and the switching process does not affect the operation of the equipment.

Appearance

Front panel appearance



Rear panel appearance

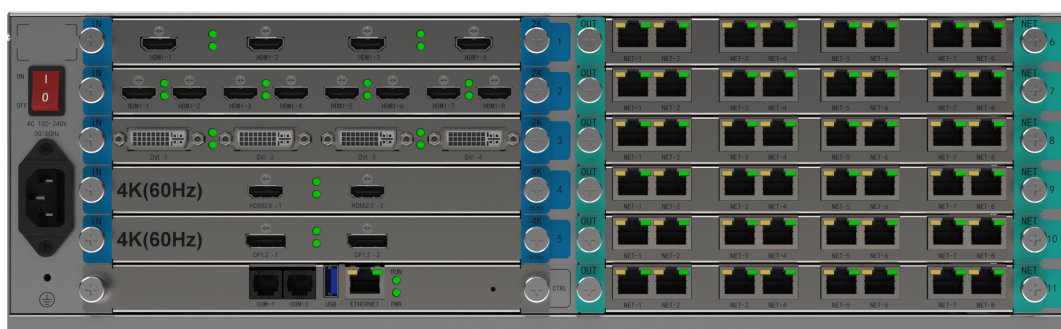


Illustration:

The machine backplate posted in this article is a sample and is for reference only, please refer to the actual product purchased.

Rear panel silk screen printing instructions:

- 1 The identified card slot is the input card slot, and only the input board can be installed.
- 6 The identified card slot is the output card slot, and only the output board can be installed.
- CTRL The card slot identified is the control board card slot, and only the control board card can be installed.

Introduction to the input board

KHx_4× DVI input board



DVI input interface

- Number of input interfaces: 4 DVI
- Maximum input resolution: 2048 ×1152@60Hz
- Custom Resolution:
 - Max width 2048 (2048 ×1152@60Hz).
 - Max height 2048 (1152 ×2048@60Hz).
- Video input format: RGB444, YCbCr444, 422, 420

Performance
parameters

Enter the card specifications

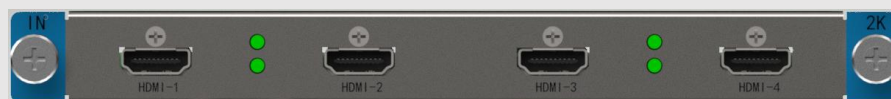
- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 5W

Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

* The first row of lights from left to right, the upper side indicates DVI-1, and the lower side indicates DVI-2; Similarly, the second row of lights, the upper side indicates DVI-3, and the lower side indicates DVI-4.


KHx_4× HDMI1.3 input board



Performance
parameters

HDMI1.3 input interfaces

- Number of input interfaces: 4 HDMI1.3
- Maximum input resolution: 2048 ×1152@60Hz
- Custom Resolution:
 - Limit width 2048 (2048 ×1152@60Hz).

	<ul style="list-style-type: none"> - Limit height 2048 (1152 ×2048@60Hz). <ul style="list-style-type: none"> ● Video input format: RGB444, YCbCr444, 422, 420 <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 10W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal <p>* The first row of lights from left to right, HDMI-1 on the top side and HDMI-2 on the bottom side; In the same way, the second row of lights indicates HDMI-3 on the upper side and HDMI-4 on the lower side.</p>
KHx_8× HDMI1.3 input board	
Performance parameters	 <p>HDMI1.3 input interfaces</p> <ul style="list-style-type: none"> ● Number of input interfaces: 4 HDMI1.3 ● Maximum input resolution: 2048 ×1152@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 2048 (2048 ×1152@60Hz). - Limit height 2048 (1152 ×2048@60Hz). ● Video input format: RGB444, YCbCr444, 422, 420 <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 5W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal <p>* The first row of lights from left to right, HDMI-1 on the top side and HDMI-2 on</p>

the bottom side; The second row of lights, the upper side indicates HDMI-3, and the lower side indicates HDMI-4; The third row of lights, the upper side indicates HDMI-5, and the lower side indicates HDMI-6; The fourth row of lights, the upper side indicates HDMI-7 and the lower side indicates HDMI-8.

KHx_4× 3G-SDI input board



3G-SDI input

- Number of input interfaces: 4 x 3G-SDI
- Maximum input resolution: 1920 ×1080@60Hz
- Video source standards: ST-424 (3G), ST-292 (HD) and SMPTE 259 SD
- Compatible with HD-SDI and SD-SDI standards
- Support loop-out, SDI loop-out interface and input interface one-to-one correspondence
- Supports 1080i/576i/480i deinterlacing
- Setting the input resolution is not supported

Performance
parameters

Enter the card specifications

- Input signal level: TMDS/CML
- Impedance: 75ohm coaxial
- Power consumption: 10W

Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

*The first row of lights from left to right, the upper side indicates SDI-1 and the lower side indicates SDI-2, and similarly, the second row of lights indicates SDI-3 on the upper side and SDI-4 on the lower side.

KHx_2× IP input board



Performance
parameters

Enter the card specifications

- Number of input interfaces: 2 RJ14 channels
- Supported protocols: RTSP
- IPC video encoding formats: H.264 and H.265
- Support video encoding of decoding encoders.
 - Video decoding of unicast streams is supported.
 - Support H.264/H.265 YUV420 8-bit video decoding of I and P frames.
- Single-card simultaneous decoding performance:
 - 2CH 800W
 - 6CH 400W
 - 12CH 200W
- Power consumption: 10W

Indicator status description

- Light on: The IP decoding function is normal
- Light not on: The IP decoding function is abnormal

* The first row of lights from left to right, the upper side indicates IP-1 and the lower side indicates IP-2

KHx_2× HDMI1.4 input board



HDMI 1.4 input

Performance parameters

- Number of input interfaces: 2 HDMI 1.4
- Maximum input resolution: 4096 ×2160@30Hz
- Custom Resolution:
 - Limit width 4096 (4096 ×2160@30Hz).
 - Limit height 4096 (2000×4096@30Hz).
- Video input format: RGB444, YCbCr444, 422, 420
- Companion audio is supported

Enter the card specifications

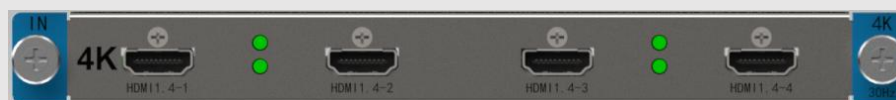
- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 5W

Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

* The first row of lights from left to right, the upper side indicates HDMI1.4-1, and the lower side indicates HDMI1.4-2.

KHx_4× HDMI 1.4 input board



HDMI 1.4 input

- Number of input interfaces: 4 HDMI 1.4
- Maximum input resolution: 4096 ×2160@30Hz
- Custom Resolution:
 - Limit width 4096 (4096 ×2160@30Hz).
 - Limit height 4096 (2000×4096@30Hz).
- Video input format: RGB444, YCbCr444, 422, 420
- Companion audio is supported

Performance parameters

Enter the card specifications

- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 10W

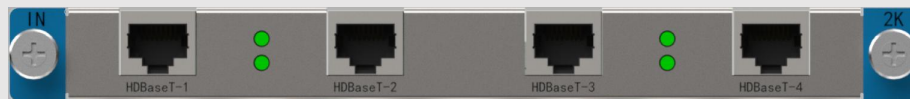
Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

*The first row of lights from left to right indicates HDMI1.4-1 on the top side and

HDMI1.4-2 on the bottom side, and similarly for the second row of lights, HDMI1.4-3 on the top side and HDMI1.4-4 on the bottom side.

KHx_4×HDBaseT_2K input board



HDBaseT_2K input interface

- Number of input interfaces: 4 RJ45 interfaces
- Maximum input resolution: 2048 ×1152@60Hz
- Custom Resolution:
 - Limit width 2048 (2048 ×1152@60Hz).
 - Limit height 2048 (1152 ×2048@60Hz).
- Companion audio is supported

Performance
parameters

Enter the card specifications

- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 20W
- Transmission distance: up to 100 meters (Category 6 twisted pair)

Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

*The first row of lights from left to right, the upper side indicates HDBaseT-1, and the lower side indicates HDBaseT-2; Similarly, the second row of lights indicates HDBaseT-3 on the upper side and HDBaseT-4 on the lower side.


KHx_2×HDBaseT_4K30 input board






Performance
parameters

HDBaseT_4K30 input interface

- Number of input interfaces: 2 RJ45 interfaces

	<ul style="list-style-type: none"> ● Maximum input resolution: 4096 ×2160@30Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 4096 (4096 ×2160@30Hz). - Limit height 4096 (2000×4096@30Hz). ● Companion audio is supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 10W ● Transmission distance: up to 100 meters (Category 6 twisted pair) <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal <p>*The first row of lights from left to right, the upper side indicates HDBaseT-1 and the lower side indicates HDBaseT-2.</p>
KHx_4× HDBaseT_4K30 input board	
Performance parameters	 <p>HDBaseT_4K30 input interface</p> <ul style="list-style-type: none"> ● Number of input interfaces: 4 RJ45 interfaces ● Maximum input resolution: 4096 ×2160@30Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 4096 (4096 ×2160@30Hz). - Limit height 4096 (2000×4096@30Hz). ● Companion audio is supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 20W

	<ul style="list-style-type: none"> ● Transmission distance: up to 100 meters (Category 6 twisted pair) <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal <p>* The first row of lights from left to right, the upper side indicates HDBaseT_4K-1, the lower side indicates HDBaseT_4K-2; Similarly, the second row of lights indicates HDBaseT_4K-3 on the upper side and HDBaseT_4K-4 on the lower side.</p>
KHx_1× 12G-SDI input board	
Performance parameters	 <p>12G-SDI input</p> <ul style="list-style-type: none"> ● Number of input interfaces: 1 x 12G-SDI ● Maximum input resolution: 4096 ×2160@60Hz ● Video source standards: ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G), ST-292 (HD) and SMPTE 259 SD ● Compatible with 6G-SDI, 3G-SDI, HD-SDI and SD-SDI standards ● Loop-out is supported ● Supports 1080i/576i/480i deinterlacing ● Setting the input resolution is not supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: 75ohm coaxial ● Power consumption: 10W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal
KHx_1× HDMI 2.0 input board	

Performance parameters	<div data-bbox="418 226 1343 324">  </div> <p>HDMI 2.0 input</p> <ul style="list-style-type: none"> ● Number of input interfaces: 1 HDMI 2.0 ● Maximum input resolution: 4096 ×2160@60Hz or 7680 ×1200@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 8192 (8192 ×1080@60Hz). - Limit height 8192 (1000 ×8192@60Hz). ● Video input format: RGB444, YCbCr444, 422, 420 ● Companion audio is supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 5W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal
	<div data-bbox="239 1249 1343 1294" style="background-color: #0056b3; color: white; padding: 2px;">KHx_1× DP1.2 input board</div> <div data-bbox="418 1305 1343 1404">  </div> <p>DP 1.2 input interface</p> <ul style="list-style-type: none"> ● Number of input interfaces: 1 DP 1.2 ● Maximum input resolution: 4096 ×2160@60Hz or 7680 ×1200@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 7680 (7680 ×1200@60Hz). - Limit height 7680 (1080 ×7680@60Hz). ● Video input format: RGB444, YCbCr444, 422, 420 ● Companion audio is supported

Enter the card specifications

- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 5W

Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

KHx_2× HDMI 2.0 input board



HDMI 2.0 input

- Number of input interfaces: 2 HDMI 2.0
- Maximum input resolution: 4096 ×2160@60Hz or 7680 ×1200@60Hz
- Custom Resolution:
 - Limit width 8192 (8192 ×1080@60Hz).
 - Limit height 8192 (1000 ×8192@60Hz).
- Video input format: RGB444, YCbCr444, 422, 420
- Companion audio is supported

Performance
parameters

Enter the card specifications



- Input signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 10W


Indicator status description

- Light on: The input signal is connected normally
- Light not on: The input is not connected, or the input is abnormal

*The first row of lights from left to right, the upper side indicates HDMI2.0-1, and the lower side indicates HDMI2.0-2.

KHx_2× DP1.2 input board

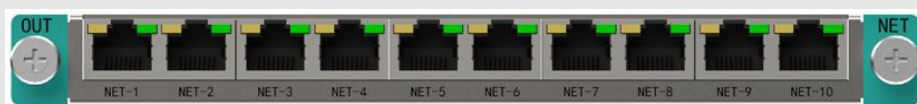
Performance parameters	<div data-bbox="418 224 1340 324">  </div> <p>DP 1.2 input interface</p> <ul style="list-style-type: none"> ● Number of input interfaces: 2 DP 1.2 ● Maximum input resolution: 4096 ×2160@60Hz or 7680 ×1200@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 7680 (7680 ×1200@60Hz). - Limit height 7680 (1080 ×7680@60Hz). ● Video input format: RGB444, YCbCr444, 422, 420 ● Companion audio is supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 10W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected, or the input is abnormal <p>*The first row of lights from left to right, the upper side indicates DP1.2-1, and the lower side indicates DP1.2-2.</p>
	<div data-bbox="239 1344 1340 1388" style="background-color: #0056b3; color: white; padding: 2px;">KHx_1× DP1.4_8K input board</div> <div data-bbox="418 1400 1340 1500">  </div> <p>DP1.4 input interface</p> <ul style="list-style-type: none"> ● Number of input interfaces: 1 DP1.4 ● Maximum input resolution: 7680x4320@30Hz or 7680×2160@60Hz or 3840x2160@120Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 15360 (15360 ×1080@30Hz). - Limit height 15360 (1000 ×15360@30Hz).

	<ul style="list-style-type: none"> ● Video input format: RGB444, YCbCr444, 422, 420 ● Companion audio is supported <p>Enter the card specifications</p> <ul style="list-style-type: none"> ● Input signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 15W <p>Indicator status description</p> <ul style="list-style-type: none"> ● Light on: The input signal is connected normally ● Light not on: The input is not connected or the input is abnormal
Introduction to the output board	
KHx_8× NET output board	
Performance parameters	 <p>Network output interface</p> <ul style="list-style-type: none"> ● 8 RJ45 Gigabit Ethernet ports ● A single board card supports a maximum of 5.2 million pixels, a maximum bandwidth of 4,096 pixels, and a maximum of 4,096 pixels ● Single-network port with load <ul style="list-style-type: none"> - When the frame rate is output at 60Hz, 8-bit supports 650,000 pixels - When the 120Hz frame rate is output, 8-bit supports 320,000 pixels ● Network port backup is supported ● It supports any layout of the network port position within the load range of the device <p>Output card specifications</p> <ul style="list-style-type: none"> ● Power consumption: 5W <p>Description of the status of the network port indicator</p>

- Yellow light does not turn on, green light does not turn on: The network cable is not connected, or the network port hardware is faulty
- Solid yellow light, solid green light: The connection is normal, and there is no communication
- Yellow light flashes, green light is solid: connection is normal, communication is normal

*Single network port, yellow light on the left and green light on the right.

KHx_10x.NET output board



Network output interface

- 10 RJ45 Gigabit Ethernet ports
- A single board supports a maximum of 6.5 million pixels, and a single network port can carry up to 4,096 pixels and 4,096 pixels
- Single-network port with load
 - When the frame rate is output at 60Hz, 8-bit supports 650,000 pixels
 - When the 120Hz frame rate is output, 8-bit supports 320,000 pixels
- Network port backup is supported
- It supports any layout of the network port position within the load range of the device

Output card specifications

- Power consumption: 5W

Description of the status of the network port indicator

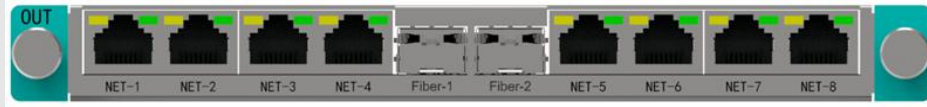
- Yellow light does not turn on, green light does not turn on: The network cable is not connected, or the network port hardware is faulty
- Solid yellow light, solid green light: The connection is normal, and there is no communication
- Yellow light flashes, green light is solid: connection is normal,

Performance parameters

communication is normal

*Single network port, yellow light on the left and green light on the right.

KHx_8× NET+2x optical output boards



Network output interface + optical fiber output interface

- 8 RJ45 Gigabit Ethernet ports + 2 10G optical fiber output interfaces
- A single board card supports a maximum of 5.2 million pixels, a maximum bandwidth of 4,096 pixels, and a maximum of 4,096 pixels
- Single-network port with load
 - When the frame rate is output at 60Hz, 8-bit supports 650,000 pixels
 - When the 120Hz frame rate is output, 8-bit supports 320,000 pixels
- Network port backup is supported
- It supports any layout of the network port position within the load range of the device
- Optical output interface:
 - Stand-alone mode: A single optical output port carries a maximum of 5.2 million pixels
 - Replication mode: The optical fiber output port can copy any 8 network ports of the same layer of the board, and Fiber-2 is the backup output port of Fiber-1.

Output card specifications

- Power consumption: 10W

Description of the status of the network port indicator


- Yellow light does not turn on, green light does not turn on: The network cable is not connected, or the network port hardware is faulty
- Solid yellow light, solid green light: The connection is normal, and there is no communication

Performance parameters


- Yellow light flashes, green light is solid: connection is normal, communication is normal

*Single network port, yellow light on the left and green light on the right.

KHx_4× DVI output board

Performance parameters	 <p>DVI output interface</p> <ul style="list-style-type: none"> ● Number of output interfaces: 4 DVI ● Maximum output resolution: 2048 ×1152@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 4096 (4096 ×616@60Hz). - Limit height 4096 (480 ×4096@60Hz). ● Video output format: RGB444 ● Companion audio is supported <p>Output card specifications</p> <ul style="list-style-type: none"> ● Output signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 5W <p>Concentrate:</p> <ul style="list-style-type: none"> ● Can only be plugged into the output slots at layers 5 and 6
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KHx_4× HDMI1.3 output board

Performance parameters	 <p>HDMI 1.3 output</p> <ul style="list-style-type: none"> ● Number of output interfaces: 4 HDMI 1.3 channels ● Maximum output resolution: 2048 ×1152@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 4096 (4096 ×616@60Hz). - Limit height 4096 (480 ×4096@60Hz). ● Video output format: RGB444 ● Companion audio is supported
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Output card specifications

- Output signal level: TMDS/CML
- Output signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 5W

Concentrate:

- Can only be plugged into the output slots at layers 5 and 6

KHx_4× HDMI1.3_AUDIO output card

Performance parameters



HDMI 1.3 output

- Number of output interfaces: 4 HDMI 1.3 channels, 4 3.5mm audio outputs
- Maximum output resolution: 2048 ×1152@60Hz
- Custom Resolution:
 - Limit width 4096 (4096 ×616@60Hz).
 - Limit height 4096 (480 ×4096@60Hz).
- Video output format: RGB444
- Companion audio is supported

Output card specifications

- Output signal level: TMDS/CML
- Output signal level: TMDS/CML
- Impedance: Differential 100ohm
- Power consumption: 5W

Concentrate:


- Can only be plugged into the output slots at layers 5 and 6

KHx_4× 3G-SDI output board


Performance parameters



3G-SDI output


	<ul style="list-style-type: none"> ● Number of output interfaces: 4 x 3G-SDI ● Maximum output resolution: 1920 ×1080@60Hz ● Output video source standards: ST-424 (3G), ST-292 (HD) and SMPTE 259 SD ● Compatible with HD-SDI and SD-SDI standards ● Supports 1080i deinterlaced output ● Output timing selection is supported <p>Output card specifications</p> <ul style="list-style-type: none"> ● Output signal level: TMDS/CML ● Impedance: 75ohm coaxial ● Power consumption: 5W <p>Concentrate:</p> <ul style="list-style-type: none"> ● Can only be plugged into the output slots at layers 5 and 6
KHx_1× HDMI 2.0 output board	
Performance parameters	 <p>HDMI 2.0 output</p> <ul style="list-style-type: none"> ● Number of output interfaces: 1 HDMI 2.0, 1 3.5mm audio output ● Maximum output resolution: 4096×2160@60Hz or 7680 ×1200@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 8192 (8192 ×1080@60Hz). - Limit height 8192 (1000 ×8192@60Hz). ● Video output format: RGB444 ● Companion audio is supported ● Support 3.5mm audio output <p>Output card specifications</p> <ul style="list-style-type: none"> ● Output signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 5W <p>Concentrate:</p> <ul style="list-style-type: none"> ● Can only be plugged into the output slots at layers 5 and 6

KHx_1× DP1.2 output board

Performance parameters	 <p>DP 1.2 output interface</p> <ul style="list-style-type: none"> ● Number of output interfaces: 1 DP 1.2, 1 3.5mm audio output ● Maximum output resolution: 4096×2160@60Hz or 7680 ×1200@60Hz ● Custom Resolution: <ul style="list-style-type: none"> - Limit width 7680 (7680 ×1200@60Hz). - Limit height 7680 (1000 ×7680@60Hz). ● Video output format: RGB444 ● Companion audio is supported ● Support 3.5mm audio output <p>Output card specifications</p> <ul style="list-style-type: none"> ● Output signal level: TMDS/CML ● Impedance: Differential 100ohm ● Power consumption: 5W <p>Concentrate:</p> <ul style="list-style-type: none"> ● Can only be plugged into the output slots at layers 5 and 6
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Introduction to the control board

KHx_ control board

Performance parameters	 <p>Interface parameters</p> <ul style="list-style-type: none"> ● COM-1: RS232 control port, which can be connected with the central control system ● COM-2: RS232 control port, which can be connected with the central control system; It can be used as a COM-1 loop-out port ● USB: USB3.0 interface, only used for system upgrade, cannot be used for power supply to other devices. ● ETHERNET: Gigabit network port, communication interface, connected
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with control computer, router or switch, web control and preview

Indicator status description


- RUN light status
 - Flashing: The device is about to start
 - Fixed frequency flashing: 1/2S, the system is operating normally
 - No flashing or no light: System failure (after the device is turned on)
- PWR lamp-like
 - Light on: The device has a normal power supply
 - Light not on: The power supply of the device is abnormal

KHx_ enhance the control card



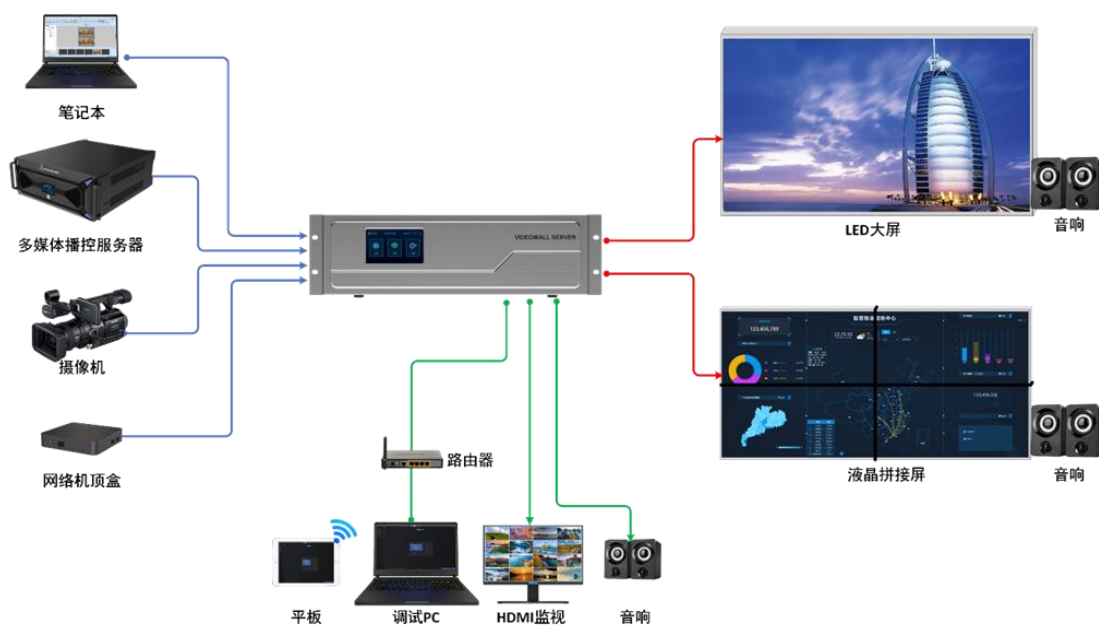
Interface parameters

Performance parameters

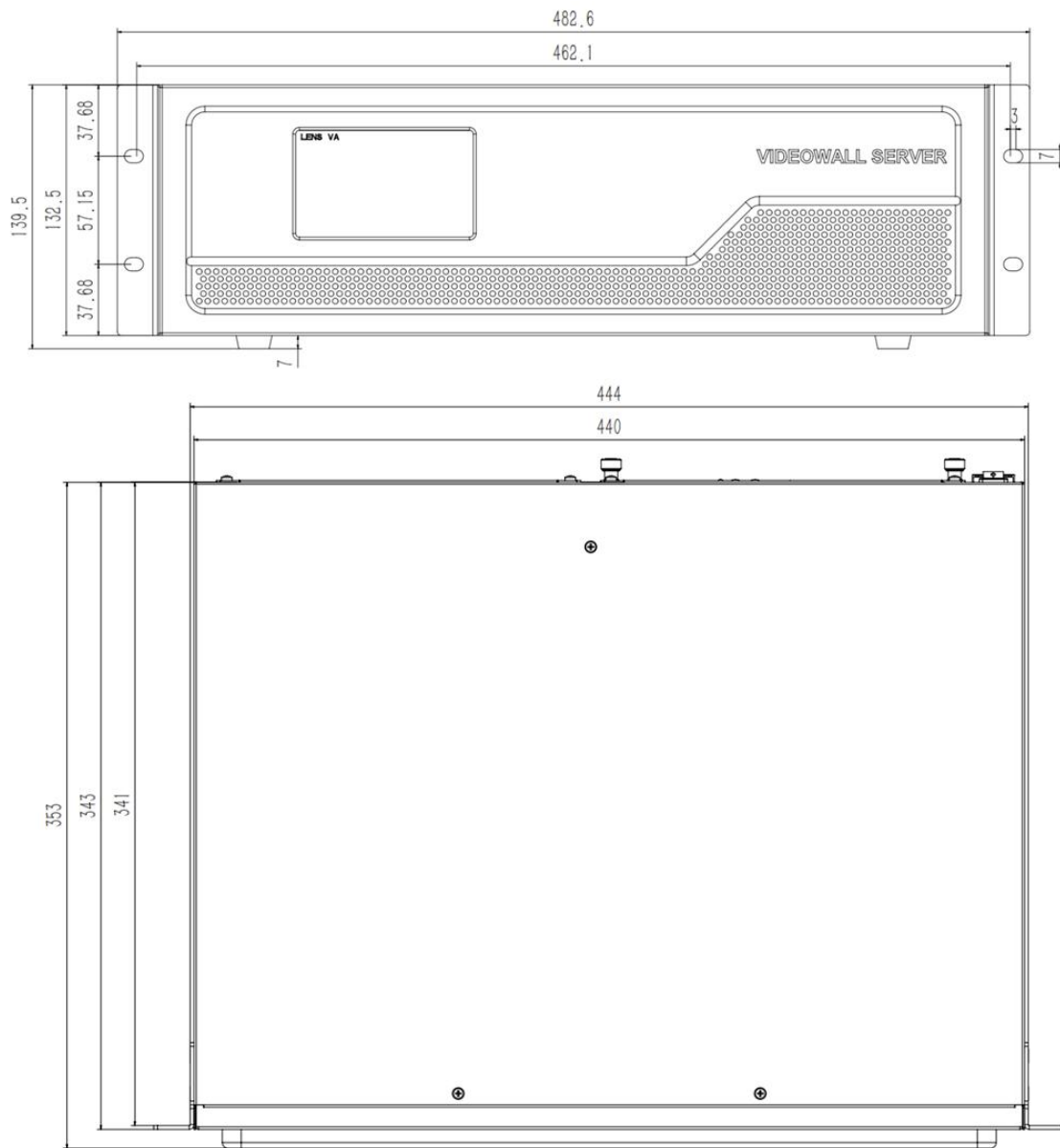
- 3D-SYNC: 3D synchronous signal output interface
- GENLOCK: External synchronization source
 - IN: External source input
 - LOOP: Synchronous output of external signal sources
- COM-1: RS232 control port, which can be connected with the central control system
- COM-2: RS232 control port, which can be connected with the central control system; It can be used as a COM-1 loop-out port
- USB: USB3.0 interface, only for system upgrade, not for power supply to other devices.
- ETHERNET: Gigabit network port, communication interface, connected with control computer, router or switch, web control and preview
- Monitor: HDMI echo interface. Output resolution: 1920×1080@60Hz
-  Audio output interface: You can set a certain input source to output audio to a large-screen speaker or do audio monitoring in the control

	room
	Indicator status description <ul style="list-style-type: none"> ● RUN light status <ul style="list-style-type: none"> - Flashing: The device is about to start - Fixed frequency flashing: 1/2S, the system is operating normally - No flashing or no light: System failure (after the device is turned on) ● PWR lamp-like <ul style="list-style-type: none"> - Light on: The device has a normal power supply - Light not on: The power supply of the device is abnormal

Scene topology diagram



Size



Unit: mm

Specifications

Product Specifications:	
Model	SH3
Chassis specifications	3U
The maximum number of input cards that can be installed	5
The maximum number of input channels supported	40
The maximum number of output cards that can be installed	6
The maximum number of output network ports supported	56
Maximum number of layers	32
Power supply	100-240V~ , 50/60Hz , 3-1.5A
Power consumption of the whole machine	160W
Working environment	0~45°C, 0%RH~80%RH, no condensation
Storage environment	-20°C~65°C, 0%RH~95%RH, no condensation
Dimensions	482.6mm×353mm×139.5mm (L×W×H)
Package size	565mm×465mm×285mm (L×W×H)
Net weight	10KG
Total weight	11KG

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