



# SE3

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## Splice Server

### Specification

Version: V1.1.2

Release date: March 2024

## Update History

Document Version	Release Data	Revision Notes
V1.0.0	2023-08-01	First edition released
V1.1.0	2023-12-25	Update input/output board introduction format Update the maximum resolution of the input/output board <ul style="list-style-type: none"><li>● Support for SEx_ 2xHDMI1.4 input board</li><li>● Support for SEx_ 4xHDMI1.4 input board</li><li>● Support for SEx_ 4x3G-SDI input/output board</li><li>● Support for SEx_ 1x12G-SDI input board</li><li>● Support for SEx_ 4xHDBaseT input/output board</li><li>● Support for SEx_ 2xHDBaseT_ 4K30 input/output board</li><li>● Support for SEx_ 4xHDBaseT_ 4K30 input/output board</li><li>● Support for SEx_ 8x3G-SDI output board</li></ul>
V1.1.1	2024-01-26	Update SEx_ 4xHDMI1.3_AUDIO output board
V1.1.2	2024-03-26	Update the silkscreen of the 4K board and the rear panel diagram of the complete machine Optimize the functional description of echo and monitoring

## Overview

SE3 splicing server is a professional video processing and control equipment, pure hardware FPGA design architecture, all boards adopt modular design, with comprehensive input and output interfaces, and can flexibly configure input and output boards according to different project application requirements. It can be widely used in TV stations, dispatching rooms, command centers, exhibition halls, conference rooms, stage performances, data centers, multi-function halls and other scenarios.

SE3 splicing server supports 8K ultra-high-definition video input and output, supports output rotation, multi-screen and multi-layer management, input and output EDID management, supports input preview and output echo, supports 3D output, supports Genlock genlock, and meets various and complex requirements. project needs.

## Features

### 3U chassis flexible expansion, super load

- The single board supports 8 channels of 2K@60Hz.
- The single board supports 2 channels of 4K@60Hz input, and supports splicing input up to 8K×2K@60Hz.
- The single board supports 2 channels of 4K@60Hz splicing output, and supports up to 8K×2K@60Hz load.
- The whole machine supports 44 channels of 2K@60Hz input and 40 channels of 2K@60Hz output at the same time.

### 8K input, massive layers

- Single channel supports HDMI2.1 or DP1.4 input, and the maximum resolution supports 8K×4K@30Hz.
- Single board supports a maximum of 24 2K@60Hz layers or 12 4K@30Hz layers or 6 4K@60Hz layers.
- Single machine supports a maximum of 48 2K layers.

### Web control, convenient and fast

- There is no need to install software, and it is controlled by the web terminal, which is not limited by the operating system and operating platform.
- Simple and fast operation, real-time response, and easy configuration of complex scenarios.
- There is no need for an additional monitoring board, and the Web side supports input real-time preview and output echo.

### Multiple management methods, easy management

- Scene management

Different preset parameters can be saved as scenes, and multi-screen scenes and single-screen scenes can be called with one key, and can be easily switched.

- Group Screen Management

It supports up to 8 groups of screen management, and the output resolution of each group of screens can be set separately, which can easily complete the display control of special-shaped screens and complex scenes.

- Pre-Edit Management

The current device output is not affected when the layer is edited.

- Loop management

Support input source patrolling, multi-channel input source timing switching.

Support scene patrol to meet unsupervised application scenarios.

## Diversified display, rich visual

- Input source logo

Characters are embedded in each input signal, the input signal is identified, and the embedded characters are displayed while the input signal is displayed on the screen.

- Scrolling subtitles

Text can be superimposed on the layer, and subtitles can be displayed statically or scrolled dynamically. Users can adjust the background color and scrolling of subtitles.

Style, etc. can be set, and a single screen supports up to 8 subtitles.

- Seamless switching

When switching the signal of the layer or calling the plan, there is no black screen, no flicker, and no freeze during the whole process.

## Intelligent monitoring and backup, stable and reliable

- Hardware real-time monitoring

Support hardware monitoring, including real-time monitoring of hardware module temperature and voltage, firmware version, operating status, fan speed, etc.

- Support remote upgrade

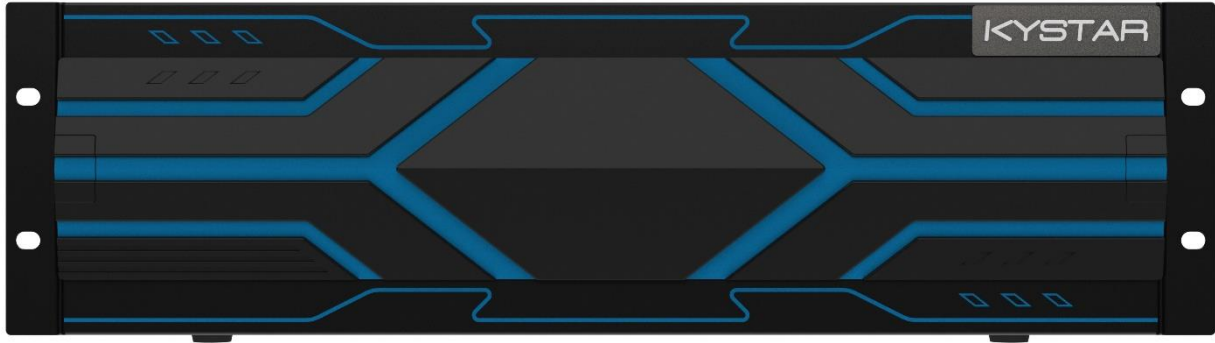
The program can be upgraded remotely, and the system maintenance is simple.

- Support input module, output module and control module hot backup

Automatic switching in case of failure, double guarantee of system operation, switching process does not affect equipment operation.

## Appearance

### Front panel



### Rear panel



#### Notes:



The back panels of the machines posted in this article are all samples and are for reference only. Please refer to the actual product purchased.

Rear panel silk screen instructions:

- 1
 The marked card slot is the input card slot, and only the input card can be installed.
- 7
 The marked card slot is the output card slot, and only the output card can be installed.
- 6  
AUX  
CTRL
 The marked card slots can be installed with some input boards or control boards.
- CTRL
 The marked card slot is the control board card slot, and only the control board card can be installed.


# Product Specifications

## Input board introduction


<b>SEx_4×DVI input board</b>	
Performance parameters	 <p><b>DVI input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 4 channels DVI</li> <li>● Maximum input resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 2048 (2048×1152@60Hz) Limit height 2048 (1152×2048@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p><small>*The first column of lights from left to right indicates DVI-1 on the upper side and DVI-2 on the lower side; Similarly, the second column of lights indicates DVI-3 on the upper side and DVI-4 on the lower side.</small></p>
<b>SEx_4×HDMI1.3 input board</b>	
Performance parameters	 <p><b>HDMI 1.3 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 4 channels HDMI 1.3</li> <li>● Maximum input resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 2048 (2048×1152@60Hz) Limit height 2048 (1152×2048@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p>

	<ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*The first column of lights from left to right indicates HDMI-1 on the upper side and HDMI-2 on the lower side; Similarly, the second column of lights indicates HDMI-3 on the upper side and HDMI-4 on the lower side.</p>
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**SEx\_8×HDMI1.3 input board**


	 <p><b>HDMI 1.3 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 8 channels HDMI 1.3</li> <li>● Maximum input resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 2048 (2048×1152@60Hz) Limit height 2048 (1152×2048@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDMI-1 on the upper side and HDMI-2 on the lower side. Similarly, the second column of lights indicates HDMI-3 on the upper side and HDMI-4 on the lower side. The third column of lights indicates HDMI-5 on the upper side and HDMI-6 on the lower side; The fourth column of lights indicates HDMI-7 on the upper side and HDMI-8 on the lower side.</p>
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**SEx\_4×3G-SDI input board**

	 <p><b>3G-SDI input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 4 channels 3G-SDI</li> <li>● Maximum input resolution: 1920 × 1080@60Hz</li> </ul>
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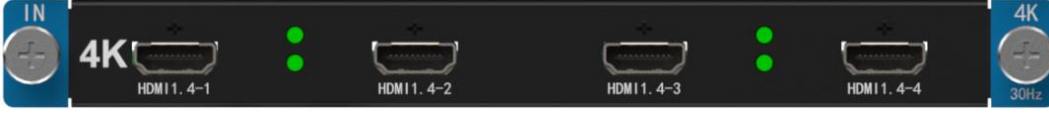

	<ul style="list-style-type: none"> <li>● Video source standards: ST-424 (3G), ST-292 (HD), and SMPTE 259 SD</li> <li>● Compatible with HD-SDI and SD-SDI standards</li> <li>● Support loop, SDI loop interface corresponds one-to-one with input interface</li> <li>● Support 1080i/576i/480i de interlacing</li> <li>● Not supporting setting input resolution</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Coaxial 75ohm</li> <li>● Power: 10W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*The first column of lights from left to right indicates SDI-1 on the upper side and SDI-2 on the lower side; Similarly, the second column of lights indicates SDI-3 on the upper side and SDI-4 on the lower side.</p>
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**SEx\_2×HDMI1.4 input board**

	 <p><b>HDMI 1.4 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 2 channels HDMI 1.4</li> <li>● Maximum input resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2000×4096@30Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDMI1.4-1 on the upper side and HDMI1.4-2 on the lower side.</p>
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**SEx\_4×HDMI1.4 input board**




<p>Performance parameters</p>	 <p><b>HDMI 1.4 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 4 channels HDMI 1.4</li> <li>● Maximum input resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2000×4096@30Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDMI1.4-1 on the upper side and HDMI1.4-2 on the lower side. Similarly, the second column of lights indicates HDMI1.4-3 on the upper side and HDMI1.4-4 on the lower side.</p>
	<p><b>SEx_4×HDBaseT_2K input board</b></p>
<p>Performance parameters</p>	 <p><b>HDBaseT_2K input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 4 channels RJ45</li> <li>● Maximum input resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 2048 (2048×1152@60Hz) Limit height 2048 (1152×2048@60Hz)</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 20W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul>

	<p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDBaseT-1 on the upper side and HDBaseT-2 on the lower side. Similarly, the second column of lights indicates HDBaseT-3 on the upper side and HDBaseT-4 on the lower side.</p>
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**SEx\_2×HDBaseT\_4K30 input board**


	 <p><b>HDBaseT_4K30 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 2 channels RJ45</li> <li>● Maximum input resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2160×4096@30Hz)</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDBaseT_4K-1 on the upper side and HDBaseT_4K-2 on the lower side.</p>
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**SEx\_4×HDBaseT\_4K30 input board**


	 <p><b>HDBaseT_4K30 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 2 channels RJ45</li> <li>● Maximum input resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2160×4096@30Hz)</li> <li>● Support audio</li> </ul>
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	<p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 20W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDBaseT_4K -1 on the upper side and HDBaseT_4K -2 on the lower side. Similarly, the second column of lights indicates HDBaseT_4K -3 on the upper side and HDBaseT_4K -4 on the lower side.</p>
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**SEx\_1×12G-SDI input board**


	 <p>The image shows the front panel of the 12G-SDI input board. On the left, there is a blue 'IN' button with a plus sign. Next to it is a large '12G' label. In the center, there are two BNC connectors labeled 'SDI-LOOP' and 'SDI-IN', with a green LED indicator between them. On the right, there is a blue '4K' button with a plus sign and a '12G' label below it.</p>
<p>Performance parameters</p>	<p><b>12G-SDI input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 1 channel 12G-SDI</li> <li>● Maximum input resolution: 4096 × 2160@60Hz</li> <li>● Video source standards: ST-2082-1 (12G), ST-2081-1 (6G), ST-424 (3G), ST-292 (HD), and SMPTE 259 SD</li> <li>● Compatible with 6G-SDI, 3G-SDI, HD-SDI, and SD-SDI standards</li> <li>● Supporting ring out</li> <li>● Support 1080i/576i/480i de interlacing</li> <li>● Not supporting setting input resolution</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS/CML</li> <li>● Impedance: Coaxial 75ohm</li> <li>● Power consumption: 10W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul>

**SEx\_1×HDMI2.0 input board**



<p>Performance parameters</p>	 <p>The image shows the front panel of the HDMI2.0 input board. On the left, there is a blue 'IN' button with a plus sign. Next to it is a large '4K(60Hz)' label. In the center, there is an HDMI 2.0 port with a green LED indicator above it. On the right, there is a blue '4K' button with a plus sign and a '60Hz' label below it.</p>
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	<p><b>HDMI 2.0 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 1 channel HDMI 2.0</li> <li>● Maximum input resolution: 4096×2160@60Hz or 7680×1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul>
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**SEx\_1×DP1.2 input board**

<p>Performance parameters</p>	 <p><b>DP 1.2 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 1 channel DP 1.2</li> <li>● Maximum input resolution: 4096×2160@60Hz or 7680×1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul>
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**SEx\_2×HDMI2.0 input board**

<p>Performance parameters</p>	 <p><b>HDMI 2.0 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 2 channels HDMI 2.0</li> <li>● Maximum input resolution: 4096×2160@60Hz or 7680×1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul> <p><b>Status LEDs</b></p> <ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates HDMI2.0-1 on the upper side and HDMI2.0-2 on the lower side.</p>
	<p><b>SEx_2×DP1.2 input board</b></p>
<p>Performance parameters</p>	 <p><b>DP 1.2 input</b></p> <ul style="list-style-type: none"> <li>● Number of input interfaces: 2 channels DP 1.2</li> <li>● Maximum input resolution: 4096×2160@60Hz or 7680×1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video input format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul> <p><b>Status LEDs</b></p>


	<ul style="list-style-type: none"> <li>● On: The power supply of the device is normal</li> <li>● Off: Abnormal power supply of the device</li> </ul> <p>*From left to right, the first column of lights indicates DP1.2-1 on the upper side and DP1.2-2 on the lower side.</p>
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## Output board introduction

### SEx\_4×DVI output board

	
Performance parameters	<p><b>DVI output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels DVI</li> <li>● Maximum output resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 4096 (4096×616@60Hz) Limit height 4096 (480×4096@60Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul>


### SEx\_4×HDMI1.3 output board

	
Performance parameters	<p><b>HDMI 1.3 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels HDMI 1.3</li> <li>● Maximum output resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 4096 (4096×616@60Hz) Limit height 4096 (480×4096@60Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> </ul>


	<ul style="list-style-type: none"> <li>● Power: 5W</li> </ul>
<b>SEx_4×HDMI1.3_AUDIO output board</b>	
Performance parameters	 <p><b>HDMI 1.3 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels HDMI 1.3, 4 channels 3.5mm audio output</li> <li>● Maximum output resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 4096 (4096×616@60Hz) Limit height 4096 (480×4096@60Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul>
<b>SEx_8×HDMI1.3 output board</b>	
Performance parameters	 <p><b>HDMI 1.3 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 8 channels HDMI 1.3</li> <li>● Maximum output resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 4096 (4096×616@60Hz) Limit height 4096 (480×4096@60Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul>
<b>SEx_4×3G-SDI output board</b>	
Performance parameters	

	<p><b>3G-SDI output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels 3G-SDI</li> <li>● Maximum output resolution: 1920 × 1080@60Hz</li> <li>● Output video source standards: ST-424 (3G), ST-292 (HD), and SMPTE 259 SD</li> <li>● Compatible with HD-SDI and SD-SDI standards</li> <li>● Support 1080i deinterlacing output</li> <li>● Supporting output timing selection</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Coaxial 75ohm</li> <li>● Power: 5W</li> </ul>
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**SEx\_8×3G-SDI output board**

<p>Performance parameters</p>	 <p><b>3G-SDI output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 8 channels 3G-SDI</li> <li>● Maximum output resolution: 1920 × 1080@60Hz</li> <li>● Output video source standards: ST-424 (3G), ST-292 (HD), and SMPTE 259 SD</li> <li>● Compatible with HD-SDI and SD-SDI standards</li> <li>● Support 1080i deinterlacing output</li> <li>● Supporting output timing selection</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Coaxial 75ohm</li> <li>● Power: 10W</li> </ul>
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**SEx\_4×HDBaseT\_2K output board**

<p>Performance parameters</p>	 <p><b>HDBaseT_2K output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels RJ45</li> <li>● Maximum output resolution: 2048×1152@60Hz</li> <li>● Custom resolution: Limit width 4096 (4096×616@60Hz) Limit height 4096 (480×4096@60Hz)</li> </ul>
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	<ul style="list-style-type: none"> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 20W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul>
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**SEx\_2×HDBaseT\_4K30 output board**


Performance parameters	 <p><b>HDBaseT_4K output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 2 channels RJ45</li> <li>● Maximum output resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2160×4096@30Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Downward compatibility with HDBaseT_2K</li> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 20W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul>
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**SEx\_4×HDBaseT\_4K30 output board**


Performance parameters	 <p><b>HDBaseT_4K output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 4 channels RJ45</li> <li>● Maximum output resolution: 4096×2160@30Hz</li> <li>● Custom resolution: Limit width 4096 (4096×2160@30Hz) Limit height 4096 (2160×4096@30Hz)</li> <li>● Video output format: RGB444, YCbCr444, YCbCr422</li> <li>● Downward compatibility with HDBaseT_2K</li> </ul>
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	<ul style="list-style-type: none"> <li>● Support audio</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 20W</li> <li>● Transmission distance: maximum 100 meters (Category 6 twisted pair)</li> </ul>
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**SEx\_1×HDMI2.0 output board**

	 <p><b>HDMI 2.0 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 1 channel HDMI 2.0 output, 1 channel 3.5mm audio output</li> <li>● Maximum output resolution: 4096 × 2160@60Hz Or 7680 × 1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video output formats: RGB444, YCbCr444, YCbCr422</li> <li>● Supporting on the go audio</li> <li>● Support 3.5mm audio output</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul>
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**SEx\_1×DP1.2 output board**


	 <p><b>DP 1.2 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 1 channel DP1.2 output, 1 channel 3.5mm audio output</li> <li>● Maximum output resolution: 4096 × 2160@60Hz Or 7680 × 1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video output formats: RGB444, YCbCr444, YCbCr422</li> <li>● Supporting on the go audio</li> <li>● Support 3.5mm audio output</li> </ul>
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	<p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 5W</li> </ul>
<p><b>SEx_2×HDMI2.0 output board</b></p>	
<p>Performance parameters</p>	 <p><b>HDMI 2.0 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 2 channels HDMI 2.0 output, 2 channels 3.5mm audio output</li> <li>● Maximum output resolution: 4096 × 2160@60Hz Or 7680 × 1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video output formats: RGB444, YCbCr444, YCbCr422</li> <li>● Supporting on the go audio</li> <li>● Support 3.5mm audio output</li> </ul> <p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul> <p>*AUDIO-1 audio output is bound to the HDMI2.0-1 output port, while AUDIO-2 audio output is bound to the HDMI2.0-2 output port.</p>
<p><b>SEx_2×DP1.2 output board</b></p>	
<p>Performance parameters</p>	 <p><b>DP 1.2 output</b></p> <ul style="list-style-type: none"> <li>● Number of output interfaces: 2 channels DP1.2 output, 2 channels 3.5mm audio output</li> <li>● Maximum output resolution: 4096 × 2160@60Hz Or 7680 × 1200@60Hz</li> <li>● Custom resolution: Limit width 8192 (8192×1080@60Hz) Limit height 8192 (1000×8192@60Hz)</li> <li>● Video output formats: RGB444, YCbCr444, YCbCr422</li> <li>● Supporting on the go audio</li> <li>● Support 3.5mm audio output</li> </ul>

	<p><b>Specifications</b></p> <ul style="list-style-type: none"> <li>● Input signal level: TMDS /CML</li> <li>● Impedance: Difference 100ohm</li> <li>● Power: 10W</li> </ul> <p>*AUDIO-1 audio output is bound to the DP1.2-1 output port, while AUDIO-2 audio output is bound to the DP1.2-2 output port.</p>
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Control board introduction

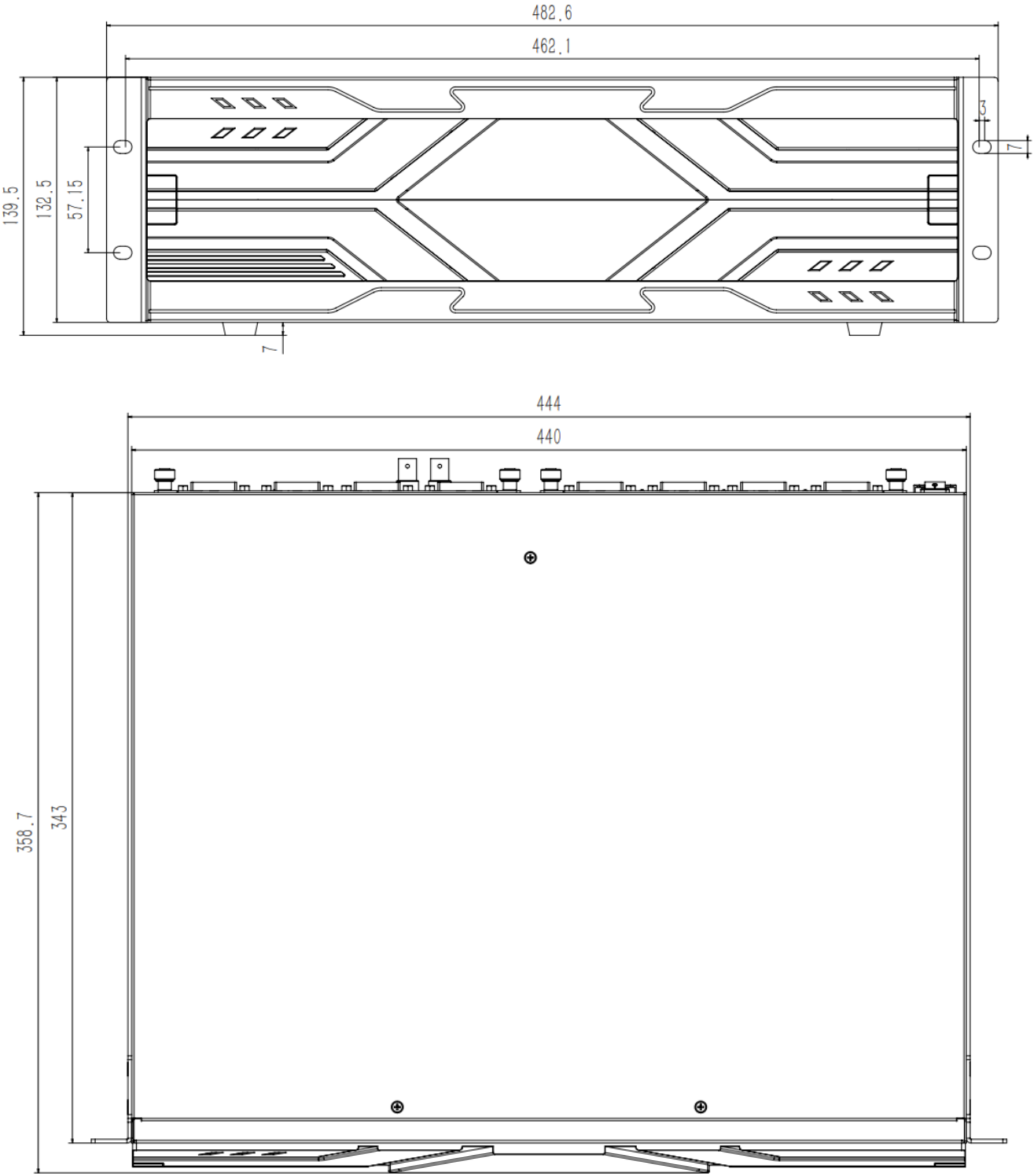
<b>SEx_Control board</b>	
Performance parameters	 <p><b>Interface parameters</b></p> <ul style="list-style-type: none"> <li>● COM-1: RS232 control port, can be connected with the central control system</li> <li>● COM-2: RS232 control port, can be connected with central control system; can be used as COM-1 loop-out port</li> <li>● USB: The USB3.0 interface is only used for system upgrades and cannot be used for power supply to other devices.</li> <li>● ETHERNET: Gigabit network port, communication interface, connected with control computer, router or switch, for web control and preview</li> </ul> <p><b>Status LEDs:</b></p> <ul style="list-style-type: none"> <li>● RUN                     <ul style="list-style-type: none"> <li>- Fast flashing: the device is starting</li> <li>- Fixed frequency flashing: 1/2S, the system is running normally</li> <li>- No flashing or no light: system failure (after the device is turned on)</li> </ul> </li> <li>● PWR                     <ul style="list-style-type: none"> <li>- On: The power supply of the device is normal</li> <li>- Off: Abnormal power supply of the device</li> </ul> </li> </ul>
<b>SEx_Enhanced Control board</b>	
Performance parameters	 <p><b>Interface parameters</b></p> <ul style="list-style-type: none"> <li>● 3D-SYNC: 3D sync signal output interface</li> <li>● GENLOCK: External sync signal source</li> </ul>

	<ul style="list-style-type: none"> <li>- IN: External signal source input</li> <li>- LOOP: External signal source synchronous output</li> <li>● COM-1: RS232 control port, can be connected with the central control system</li> <li>● COM-2: RS232 control port, can be connected with central control system; can be used as COM-1 loop-out port</li> <li>● USB: The USB3.0 interface is only used for system upgrades and cannot be used for power supply to other devices.</li> <li>● ETHERNET: Gigabit network port, communication interface, connected with control computer, router or switch, for web control and preview</li> <li>● Monitor: HDMI echo monitor interface. Output resolution: 1920 × 1080@60Hz</li> <li>●  Audio output interface: you can set a certain input source to output audio to the large screen speaker or perform audio monitoring in the control room</li> </ul> <p><b>Status LEDs:</b></p> <ul style="list-style-type: none"> <li>● RUN <ul style="list-style-type: none"> <li>- Fast flashing: the device is starting</li> <li>- Fixed frequency flashing: 1/2S, the system is running normally</li> <li>- No flashing or no light: system failure (after the device is turned on)</li> </ul> </li> <li>● PWR <ul style="list-style-type: none"> <li>- On: The power supply of the device is normal</li> <li>- Off: Abnormal power supply of the device</li> </ul> </li> </ul>
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## Machine Specifications

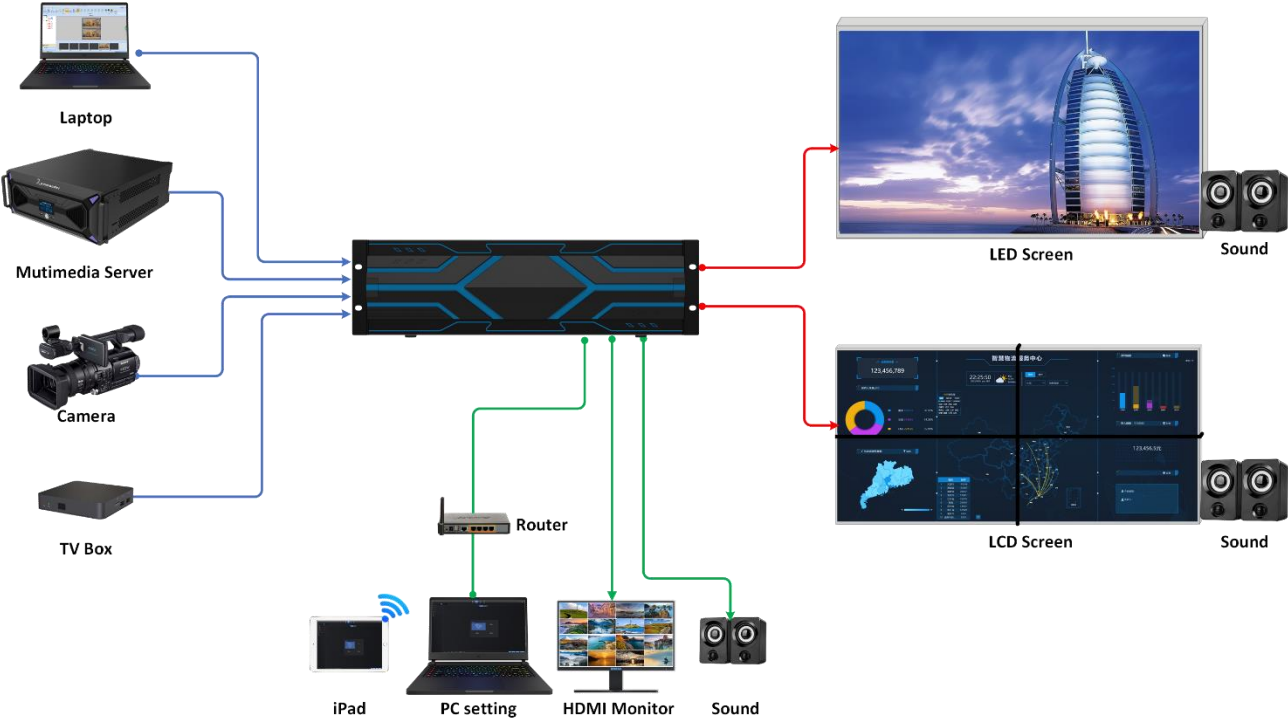
Model	SE3
Chassis Specifications	3U
The maximum supported input cards	6 pcs
The maximum support input	44 pcs
The maximum number of supported output cards installed	5 pcs
Maximum support output channels	40 pcs
Maximum number of layers	48
Input power	110-240V~, 47-63Hz, 1A
Overall power consumption	160W
Working environment	0~45°C, 0%RH ~ 80%RH, no condensing
Storage environment	-20°C~65°C, 0%RH ~ 95%RH, no condensing
Dimensions	482.6mm×358.7mm×139.5mm (L×W×H)
Net weight	10KG
Gross weight	13KG

# Dimensions



Unit: mm. Linear and angular dimensional tolerances not noted conform to GB/T1804-M.

# Application Scenario



Beijing Kystar Technology Co., Ltd.

Professional ultra-high-definition video display and control comprehensive solution provider and operation service provider

Website: [www.kystar.com.cn](http://www.kystar.com.cn)

Tel: 400-159-0808



WeChat