



OWNER`S MANUAL

HD video matrix 4*4



2023V1.1

Document description

Before using this product, please read this manual in detail, and keep it properly for reference, and read the safety operation guide carefully, attention:  danger,  Pay attention to reminder symbols.

Product name	Color	Height	Input channel	Output channel	Power supply
4x4 Fixed-type seamless switching matrix	Black	1U	4	4	DC5V

Safety operation guide

To ensure the reliable use of the equipment and the safety of personnel, follow the following during installation, use and maintenance:

Danger

- There are live parts in the equipment. Non-professionals should not dismantle the equipment without permission to avoid electric shock.
- Do not dismantle the equipment to avoid electric shock.
- Do not wet your hands in case of electric shock.
- It is strictly prohibited to place the product in an environment containing flammable, explosive gas or heat sources.

Attention

- This is A class A product. In the living environment, the product may cause radio interference, which requires users to take practical measures for its interference.
- Do not sprinkle any corrosive chemicals or liquids on or near the equipment.
- Do not block the heat dissipation hole, and keep the working environment well ventilated, so as to discharge the heat of the equipment in time, to avoid the high temperature and damage to the equipment.
- Do not place the equipment on the unstable table to avoid the damage caused by the equipment falling.
- During transportation to avoid damage to the equipment from strong vibration, it is recommended to use suitable packaging or original packaging during transportation.
- Do not squeeze the power cord and equipment with heavy objects.
- The equipment must use a power supply with grounding.
- When handling the equipment, beware of the equipment falling off, to avoid causing personnel injury or equipment damage.
- In a wet environment or not in use for a long time, turn off the total power supply of the equipment.
- The equipment shall be stored for a long time, and must be checked and tested before use.
- Before cleaning the equipment, the equipment must be powered off, and please clean the equipment with a dry cloth.
- Equipment scrap should be treated according to industrial waste, incineration is strictly prohibited.

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1.1. Introduction

1.2. Product profile

Fixed seamless switching matrix is a professional 4K HD fixed seamless switching matrix, support multi-channel HDMI input, multi-channel HDMI output. The input and output support HDMI 1.4, and the highest output resolution is 3840x2160@30Hz. The device control mode is flexible and diverse, including two-way serial port control, panel buttons and other controls. The product has intelligent EDID management to ensure compatibility with signal sources and operations in various application scenarios.

This product are suitable for multimedia conference room, lecture hall, multi-function hall, performing arts hall, electric classroom, exhibition exhibition, command center and other places.

1.3. Functional characteristics

- Support multiple input to multiple output seamless fast switching;
- Support for multiple fixed splicing modes;
- Support for input and output support for HDMI 1.4, the highest resolution is 3840x2160@30Hz;
- Color space supports RGB 4:4:4, YCbCr4:4:4, YCbCr4:2:2, etc;
- Input the compatible DVI / HDMI signal;
- The default 9 output resolutions are optional;
- The output signal format supports HDMI and DVI;
- Support the power-off-memory function;
- Support continuous hot plug insertion of HDMI interface;
- Support standby, low power consumption waiting for life;
- Support two-way serial port control, panel button control
- 1U height 19-inch standard cabinet mounting case

2. Product appearance

2.1.Front panel



S.N.	Name	Characterization
①	Power indicate	<ul style="list-style-type: none"> ● The equipment is working normally, and the indicator light is always on and red; ● In the standby mode, the indicator light is off; ● Power off, the indicator light is off
②	INPUTS	<ul style="list-style-type: none"> ● White input channel switch button;
③	OUTPUTS	<ul style="list-style-type: none"> ● White output channel switch button;
④	MENU Functional key area	<ul style="list-style-type: none"> ● All: Full choice of keys ● All the way input signal is switched to all output channels; ● LOCK: <ul style="list-style-type: none"> ● Locking: Long press the lock button for 3 seconds; ● Unlocking: Long press for 3 seconds the button to unlock; ● Mode: Scene preservation ● Mode+IN No.Button + Enter=Scene preservation, ● ENTER: <ul style="list-style-type: none"> ● The command confirms button; ● SCENSE: The scene calls the button ● CLEAR: Clear key, to clear an unfinished action.

⑤	ON/OFF	● ON/OFF the power
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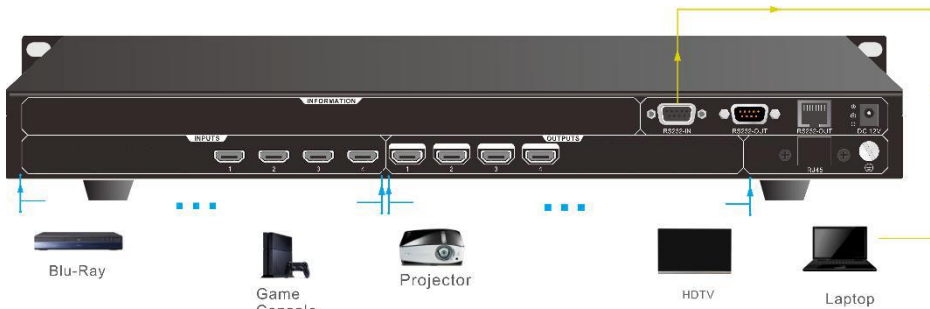
2.2. Rear panel



S.N.	NAME	Characterization
①	INPUT	<ul style="list-style-type: none"> The HDMI input port, connect the HDMI signal source, and automatically detect the connection status;
②	OUTPUT	<ul style="list-style-type: none"> The HDMI output port, connect to the monitor, and automatically detect the connection status;
③	RS232-IN	<ul style="list-style-type: none"> Connect the control device such as PC to control the local computer through the upper computer software;
④	RS232-OUT	<ul style="list-style-type: none"> Connect other peripherals, such as matrix, splicing, can control peripherals; network port and DB9
⑤	Power interface	<ul style="list-style-type: none"> Connect the power supply DC5V;
⑥	RJ45	<ul style="list-style-type: none"> Optional, enhanced type to support network control.
⑦	G.T.	<ul style="list-style-type: none"> ground terminal

3. System connection

3.1. Connection diagram



3.2. Connection step

- Step 1: Connect HDMI signal source to the HDMI input port in the INPUTS area;
- Step 2: Connect HDTV to the HDMI output port with HDMI cable;
- Step 3: Connect the control device (e. g., a PC) to the RS232 IN port with the RS232 serial port line;
- Step 4: Connect the power adapter to the power interface.

4. Panel switching control



The front panel keys consist of channel keys and function keys, which can be controlled through the panel keys, such as signal switching and scene calling.

4.1. Signal switching

This machine includes multiple input channels, multiple output channels, can switch any 1 input signal to 1 output or all channels. The operation mode is as follows:

1) Switch 1 input to 1 output

Operation format: "input channel" + "output channel" + "ENTER"

For example: Switch the input channel 1 to the output channel 2



2) Switch the 1-way input signal to all outputs

Operation format: "input channel" + "ALL"

For example: Switch the input channel 1 to all the output channels



3) Switch the 1-channel input signal to the multiple-channel output

Operation format: "Input channel" + "Output channel" + "Output channel" + "ENTER"

For example: Switch the input channel 1 to the multichannel output channel



4.2. Scene management

Save the scene

Mode+IN No.+Enter=Scene preservation, Support 4 sets of scenarios;

Scene call

Scene+IN No.+Enter=Scene call, Support 4 sets of scenarios;

4.3. Clear the incomplete operations

During signal channel switching and scene calling, press the CLEAR key before confirming ENTER.

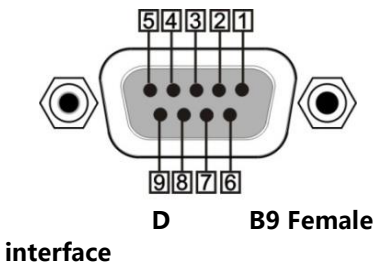
4.4. System Settings

Long press the [lock] key for 3 seconds to lock.

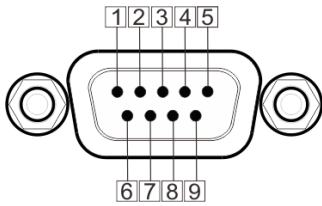
Long press the [lock] key for 3 seconds to unlock;

5. Serial port control

The host is connected to the control computer, and the host can be controlled through the RS232 serial port software, RS232 IN Port is a 9-pin master connector, RS232 OUT Port is 9-pin male; RS232 OUT1 The port is RJ45, The pin instructions are as follows:



Pin	Name	Function
1	N/u	Empty
2	Tx	Send
3	Rx	Receive
4	N/u	Empty
5	Gnd	Ground
6	N/u	Empty
7	N/u	Empty
8	N/u	Empty
9	N/u	Empty



DB9 Male interface

Pin	Name	Function
1	N/u	Empty
2	Rx	Send
3	Tx	Receive
4	N/u	Empty
5	Gnd	G.N
6	N/u	Empty
7	N/u	Empty
8	N/u	Empty
9	N/u	Empty



RJ45 Male interface

Pin	Color	Name	Function
1	Orange white	N/u	Empty
2	Orange	Tx	Empty
3	Green white	Rx	Send
4	Blue	N/u	G.N
5	Blue white	Gnd	G.N
6	Green	N/u	Receive
7	Brown white	N/u	Empty
8	Brown	N/u	

6. Technical parameter

	0404
Input	4 channel HDMI
Input connector	Type A 19 Pin Male
Input resolution	MAX 4K@30Hz RGB4:4:4, YCbCr4:4:4,YCbCr4:2:2
Output	4 channel HDMI
Output connector	Type A 19 Pin Female
Output resolution	MAX 4K@30Hz RGB4:4:4,
HDMI standard	HDMI1.4
HDMI Inbuilt audio	PCM
Control	
Control port	(2) RS232 (1) RJ45
Port connector	(1),DB9 RS232 Input female connector, (1) DB9 RS232 output male connector, (1) RJ45 232 output
Button	White button, Support for switching, scene calling
Regular	
Transmission distance	1080P≤15m; 4K≤5m; 1080P Fiber optic wire HDMI interface 50m(MAX); 4K Fiber optic wire HDMI interface 30m(max);
Bandwidth	10.2Gbps
Power supply	DC 5V 1A
Dimension(W*D*H)	437mm*236mm *44mm
N.W.	2 kg