

Manual

HDMI Matrix Switcher

1: Introduction

HDMI matrix switcher is a professional switching device which embedded and intelligent control. It is used to synchronously or asynchronously switch inputs to any outputs of audio and video.

With the unique process mode, the switching speed of the device is greatly improved. The flexible control mode, it has the long life key panel operation, large screen shows all kinds of information, provide the RS – 232 standard communication interface, convenient for users with a variety of remote control devices (such as Crestron, AMX, CREATOR, etc.), and also with an infrared remote-control device (optional).

HDMI matrix switcher is mainly used in radio and television engineering, multimedia conference hall, large screen display engineering, TV teaching, command and control center, etc.

2. Functional Characteristics

1. 4 HDMI input and 4 HDMI output
2. 19-inch standard chassis, full plug-in design, free expansion.
3. It is compatible with all HDTV resolutions including 1080p/60hz and PC with up to 1920*1200.
4. Long line input automatic equalization - ensures independent automatic compensation for each input due to long distance transmission or loss of signal from low quality village.
5. HDMI 1.3a, HDCP 1.3, HDCP 1.4, and DVI 1.0 protocol can be supported in this device, also the high color depth and up to 6.75Gbps speed can be supported as well.
6. HDCP compatibility - ensure the content of protected media can properly display interoperability with other HDCP compatible devices.
7. The switch function of built-in wheel can set the interval time and channel arbitrarily.
8. Built-in 32 group scene storage function, it can save 32 kinds of commonly used model or a specific model on the device; when using can be called directly.
9. Code and instructions of all similar products in the market can be coordinated.
10. Multiple code formats to meet the needs of different industries and customers, more flexible, more human, and more convenient.

11. Various control modes: panel, central control, computer software, TCP/IP, splicing software, third-party software, etc.
12. Computer software is equipped with a channel name definition, more intuitive.
13. Compatible with all control systems on the market, increased the input and output channel, make the programming more efficient, easier and more flexible.
14. With a channel network interface, it can be remotely controlled by Ethernet and support multiple users at the same time (optional).
15. It has 2 RS-232 communication interfaces; Support to transfer from RS-232 to RS-485 communication interface.
16. Double serial port makes it easier and faster to connect with large screen.
17. Ultrafast command receiving and switching speed, and zero delay receiving instruction up to 64.
18. Open control protocol and protocol standard, it supports the third party and customers' self-development software to control.
19. It can set the ID address to achieve multi-machine cascade, maximum can cascade 255 matrixes.
20. High quality, mass production, high compatibility and stability.
21. Key control: the key on the front panel of the device can control all movements of the matrix.
22. Remote control: the device is equipped with a remote control and uses it to control all movements of the matrix.
23. RS-232/485 control: the matrix is connected to the computer by the RS-232/485, and it is possible to fully control all the actions of the matrix by installing the control matrix special management software on the computer.
24. Splicing software control: in a large screen splicing system, all actions of the matrix can be manipulated through a large screen splicing software.
25. Touch screen control: the touch screen transfers data and instructions to the matrix via WIFI, and then controls all movements of the matrix (optional).
26. Central control: matrix switcher is compatible with other manufacturers' codes and instructions, using the central controller to manipulate the action of the matrix (optional).
27. Network control: control management function through TCP/IP network, and control all actions of matrix through Ethernet (optional).

3. Panel



4. Connection between HDMI matrix switcher and external device

3.1 Input and output

HDMI interface is a kind of digital video/audio interface, is a special digital interface that suitable for video transmission. It can transmit audio and video signals at the same time. The highest rate is 6.75 GB/s data transmission, and it doesn't need any conversion before transfer the signal.

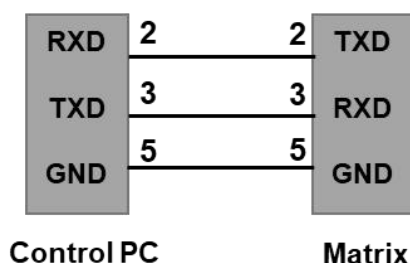
3.2 Communication port and connection

The HDMI matrix provides 1 channel standard RS-232 input interface, 1 channel output interface and 1 channel RJ45 Ethernet control port (optional). Expect that can be operated by button in the front panel of matrix, also allows the user to use all kinds of control systems (such as personal computers and other factory control

system, etc.), or via Ethernet or remote controller for remote control.

3.2.1 RS-232 control port of HDMI matrix switcher

This series of products provides two serial ports: the input and output port of RS-232. The input port connects with the computer, the output port cascade control other matrix hosts. RS-232 input port is 9 pins female connector, description is as follows:



Foot position	Signal	Explanation
1	-	-
2	TXD	RS-232 Agreement, send data
3	RXD	RS-232 Agreement, receive data
4	-	-
5	GND	Signal address
6	-	-
7	-	-
8	-	-
9	-	-

3.2.2 Connection between HDMI matrix switcher and control PC

Using the RS-232 connecting line to connect the serial communication port to the RS-232 input communication port of the HDMI matrix host, the computer can be used to control the HDMI matrix after installing the application software. The user can use the application software that comes with the matrix as the computer control software, also can write the control software on its own.

3.3 Connection of HDMI matrix switcher

HDMI matrix switcher provides different models with different number of input, output interfaces, users can depend on different occasions to connect with various HDMI players, or connect to the computer signals through the HDMI signal

converter, audio and video device, such as VCD, desktop computers, graphics processors, digital display and etc. The output terminals can be connected to the HD display, LED display, etc.

3.3.1 Connecting line

HDMI is a high definition multimedia interface. HDMI interface can provide up to 6.75Gbps data transmission broadband, it can transfer uncompressed audio signal and high-resolution video signal. At the same time, it is not necessary to carry out the mode/number or number/mode conversion before the signal transmission, so as to ensure the highest quality of audio and video signal transmission.

5. If “Succeed”, shows as below:

<p>Input number 88 -- many 91 -- one Press Ok Finally OK</p>
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6. If “Error”, shows as read:

<p>Input number 88 -- many 91 -- one Press Ok Finally Error</p>

5. Accessories

5.1 RS-232 communication line

Used to connect the computer to control the host.



5.2 Power line

Used for connecting the power input port to the host power supply.



5.3 Operation manual

The instruction and parameters of the system are introduced.

