U S E R   M A N U A L

4x4 HDMI Matrix

Model No: HDMX0404

INTRODUCTION

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Our series of HDMI switchers, extenders, matrixes and splitters are designed to make your A/V device use more convenient, more comfortable, more productive and more cost-efficient.

The 4x4 HDMI Matrix can use four HDMI sources to four HDMI sinks. The matrix allows four HDMI devices to be switched or split easily to four HDMI compatible monitors or projectors. The Matrix can also be placed at the end of a long HDMI cable to regenerate the HDMI signal.

Our devices offer solutions for noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.
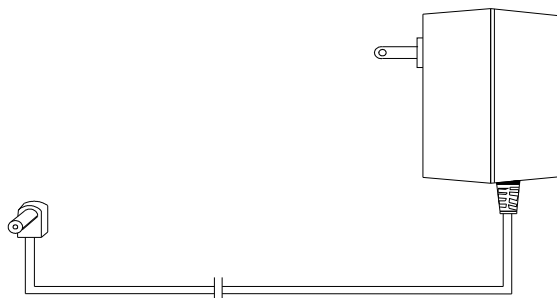
FEATURES

- Four HDMI input signals switched or split to four HDMI sink devices

- Support CEC

- Support deep color 30bit, 36bit

- Support Blue-Ray 24/50/60fs/HD-DVD/xvYCC

- Digital audio format, as DTS-HD/Dolby-trueHD/LPCM7.1/DTS/Dolby-AC3/DSD

- Support signal retiming

- Support input up to 15metres AWG26 HDMI standard cable length, output up to 25metres AWG26 cable length

- Inputs can be switched with the IR remote control，also can be controlled by four buttons.

- Serial RS-232 remote port

- It can smartly jump over those input sources which are not connected.

- No loss of quality

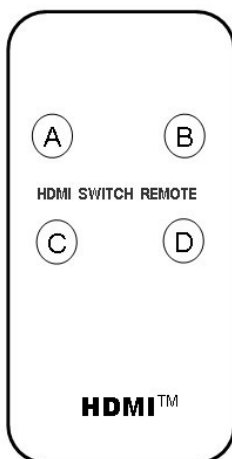- Installs in minutes

- Need DC5V/4A power supply

The accessories with the machines lists as picture：

1、5V Power Adaptor

2、Remote

3、one pc of Manual

Power Adaptor

Remote

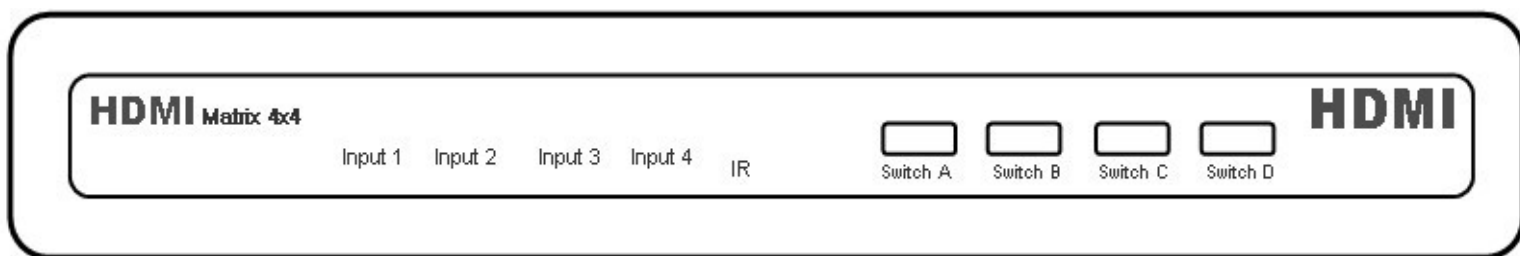**Physical Connection Showing Picture：**

Figure 1.0 Front Panel Showing Picture

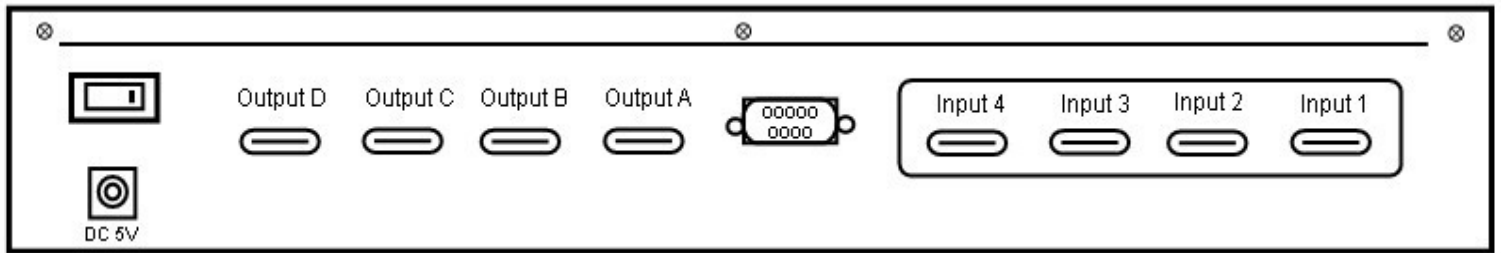Input 1- Input 4: HDMI input led status light

IR: IR receiver

LCD: Digital Tube Showing

Switch A: HDMI A output switch button

Switch B: HDMI B output switch button

Switch C: HDMI C output switch button

Switch D: HDMI D output switch button

Figure 1.1 rear panel showing picture

DC 5V: 5V DC-DC Power Interface

Switch：Power Adaptor led status light

Output D：HDMI D output interface

Output C：HDMI C output interface

Output B：HDMI B output interface

Output A：HDMI A output interface

R232: RS232 communication port
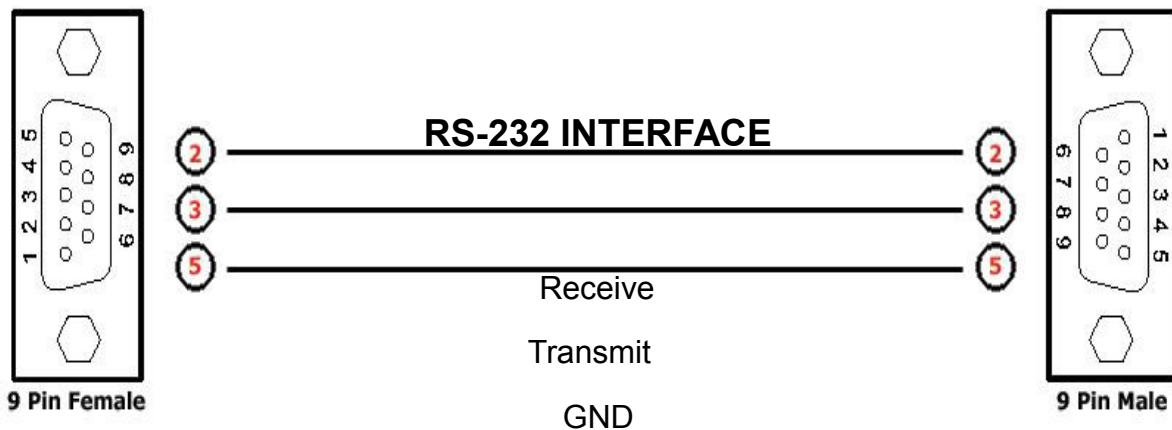
Input 1- Input 4：HDMI input interface

Operating and Connecting：

1. Connect one cable from each HDMI source devices into HDMI Matrix inputs.

2. Connect one cable from each display (monitor or projector) into the HDMI Matrix outputs.

3. Connect 5V power supply to the HDMI 4x4 Matrix.

4. Alternatively, use an RS-232 control system to switch between sources.

SPECIFICATIONS: HDMX0404

HDMI resolution …………………….....24/50/60fs/1080p/1080i/720p/576p/576i/480p/480i

Support video color format ……………………….……………24bit/deep color 30bit,36bit

Support audio format……………….DTS-HD/Dolby-trueHD/LPCM7.1/DTS/Dolby-AC3/DSD

Max bandwidth…………………………………………………………………………….225MHz

Max baud rate……………………………………………………………………..6.75Gbps

Input/Output TMDS signal ………………………….……….…...0.5~1.5Volts p-p(TTL)

Input/Output DDC signal ……………………………………….………… 5Volts p-p (TTL)

Input cable distance...….. …………………… ………≤15m AWG26 HDMI standard cable

Output cable distance…………………………………..≤25m AWG26 HDMI standard cable

Max working current………………………………………………………………...2.6A

Power adapter format………………..Input:AC (50HZ, 60HZ) 100V-240V; Output: DC5V/4A

Operating Temperature range……….………………………………………… (-15 to +55℃)

Operating Humidity range………………………….……….5 to 90%RH (No Condensation)

Dimension (L x W x H)   ……………………………………………….380x140x60 (mm)

Weight…...…………………………………………………………………………1900g

RS-232 INTERFACE

Receive

Transmit

GND

9 Pin Female   9 Pin Male

The Hexadecimal Serial Communication Protocol：

To control the input/output by sending the XXXX@X! ASCII Code(before the mark " @"the XXXX means the output port, while the X after " @" means input port,the mark "!" means the finish. One X means one hexadecimal number, there are 1,2,3,4 X before @, and there is only one hexadecimal number after @. The part before the mark "@" is made up by four hexadecimal Serial Communication Protocol, while the part after the mark "@" is one Hexadecimal number.

For example: A B C D @ 3 ！ （Note: A B C D four output port all send out the input 3 signal）

For example: D @ 1!(Note: D output port send out the input 1 signal)

Send the com or XXXX@X ASCII code to get the related input port of the A B C D output port.(note: the first number means the signal from Output A port, the second number means the signal from Output Cport, the third number means the signal from Output C port, and the fourth number means the signal from Output D port.

For example: 03 04 02 01

The first number "03" means output A port is outputting input 3 signal.

The second number "04" means B port is outputting input 4 signal.

The third number "02" means C port is outputting input 2 signal.

The fourth number "01" means D port is outputting input 1 signal.

For example：03 03 02 02

The first number "03" means output A is outputting input 3 signal.

The second number "03" means output B is outputting input 3 signal.

The third number "02" means Output C is outputting input 2 signal.

The fourth number "02" means output D is outputting input 2 singal.

For example: 01 02 03 04

The first number "01" means output A is outputting input 1 singal.

The second number "02" means the output B is outputting input 2 signal.

The third number "03' means the output C is outputting input 3 signal.

The fourth number "04" means the output D is outputting input 4 signal.

RS-232 Setting:

Bits per second 9600

Data bits 8

Stop bits 1

CRC bits……………………………………………………………………………….None

Flow Control .... None

The Control Software Manual For the Matrix：

1．To open the control software and choose the serial port that connected with the Matrix and then click the Open,it will show as picture below.(the figure 2 is matched code of figure 1)

2．The letter "OPEN" means open the serial communication port function, the "Close" means close the serial communication port function. For example, the figure 3 means:

Output A, Output B, Output C, Output D all outputs input 1 signal.

3. The A B C D four output port will all output input 1 signal when click the "1".(the 2,3,4 is same principle as the "1")

4. The A output port will output input 4 signal when click the A4(the letter from A1 to D4 is all same principle with A4).
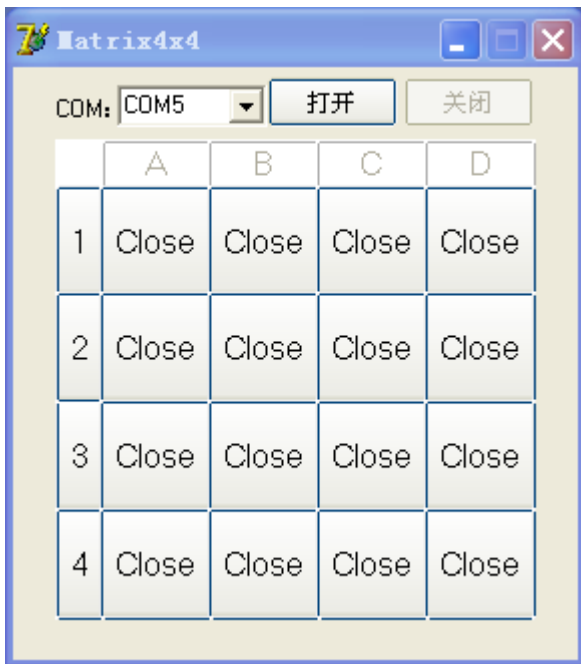

	A	B	C	D
1	A1	B1	C1	D1
2	A2	B2	C2	D2
3	A3	B3	C3	D3
4	A4	B4	C4	D4

Figure 1   Figure 2

Figure 3

IR Remote Operating Instruction

1．Firstly remove the plastic film in the rear board of the remote board.

2．The A, B, C, D signifies the A, B, C, D output.

3．If you want to select the Signal source to output A, press the A key directly. Repeat pressing the A key can switch the signal to the output. For Example,if you like to switch the input 2 hd source to output A,only press the "A" key repeatedly until you see the LED tube showing "2".

4．The plastic film is strongly advised to remove it when the remote is not used for long time.

Notes:

 Pls use the machine as the instruction listed to keep the long use lifetime of the machine.

1. The machine should be placed at the spot far from the Damp, High-Temperature, Dusty, Erosive, and oxidative environment.

2. All parts will be free from the strong shake, hit, fall.

3. Touching the power adaptor with the wet hands is prohibited.

4. Pls hold the power adaptor head and do not pull the power cord when cut off from the socket.

5. Pls turn the power off when the machine is not used for long time.

6. Pls do not open the cover and do not touch the inside parts.

7. Pls use the original factory power adaptor.

Before power on, pls check the connection line carefully. And make sure that all interfaces are normally connected. The common trouble shooting way shows below:

Serial NO	Trouble Description	Cause and Ways to deal with
1	Non-Power-Connected	1. Check if the power adaptor head is truly and correctly inserted the power socket. 2. Check the power switch if it is in on status.
2	No Picture	1. Pls to make sure that the TV is on and has been connected with the machine. 2. To check if the signal source is on and well connected. 3. Check the system connection quality. 4. Check if the line is all good quality. 5. Check the cable quality
3	Obscure Picture	1. To try again to connect the cable to be free from the unsuccessful connection. 2. HDMI Cable Quality
4	Remote	1. Pls check if the film that stops the current has been taken out. 2. To check if the remote battery is working full.