4 by 2 HDMI Matrix with Dual ARC

Operation Manual

1. Introduction

This is a high performance HDMI Matrix with four HDMI inputs & two outputs, it allows any source (Blue-Ray player, HD DVD player, satellite receiver, game system, etc.) to be shown on the any of the two displays simultaneously, and supports 4K×2K, 3D, 12-bit Deep Color. With its 3Gbps bandwidth and the additional features of the latest HDMI standards you can be sure of great HDMI distribution. It support dual ARC and wide band IR extend fuciton also.

2. Feature

➢ Compliant with HDMI 1.4,HDCP 1.4
➢ Supports multiplexed HDMI 4-input and 2-output
➢ Supports video format up to 4k2k@30Hz with 24bit RGB/YcbCR 4:4:4/YCBCR 4:2:2,and up to 4k2k@60Hz with 12bit YCBCR 4:2:0.
➢ Deep Color support 48/36/30/24-bit
➢ Supports reception of any audio data conforming to the HDMI specification such PCM at up to 192kHz,compressed audio(IEC 61937),DSD,DST,DTS and HBR.
➢ Supports Dual ARC control
➢ Super wideband IR control system, IR transport channel can be forward or backward.
➢ Supports button,IR,RS232 etc various controlled ways；

3. Package Contents

➢ 4x2 HDMI Matrix   1pcs
➢ 5V/1A DC power adaptor   1pcs
➢ Remote Control   1pcs
➢ Operation Manual   1pcs
➢ Wideband IR Tx   4pcs
➢ Wideband IR Rx   2pcs
➢ RS232 Cable   1pcs

4. Specification

Video Bandwidth	297MHz/2.97 Gbps
Input Ports	4 × HDMI (Female type)
Output Ports	2 × HDMI (Female type)
Output Resolution	480i ~1080p50/60, 4Kx2K@24/30, VGA~UXGA
HDMI Cable In	1080p/12bits (15m)
HDMI Cable Out	1080p/12bits (15m)
ESD Protection	Human Body model: ±8 kV (air-gap discharge) ±4 kV (contact discharge)
Power Supply	5 V/1A DC (US/EU standards, CE/FCC/UL certified)

| Dimensions	113 mm (W) × 260 mm (D) × 26 mm (H)
Weight	750 g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0 °C~40 °C/ 32 °F~104 °F
Storage Temperature	−20 °C ~ 60 °C/−4 °F ~140 °F
Relative Humidity	20~90 % RH (non-condensing)
Power Consumption	2.0 W

5. Operation and Fuctions

5.1 Front panel
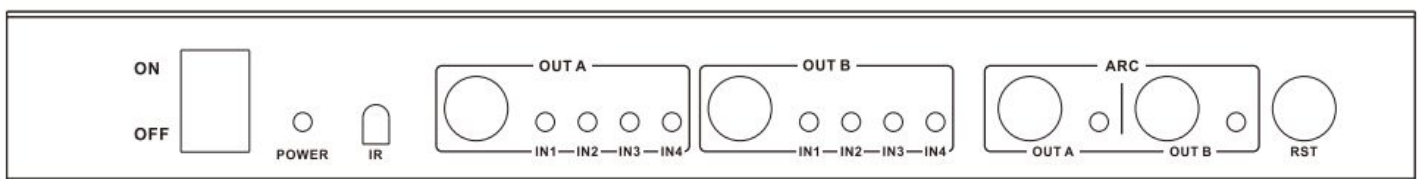
1. **ON/OFF:** Power on/off switch.
2. **POWER LED:** This red LED illuminates when the device is connected with power supply.
3. **IR :** Remote control receiver window.
4. **OUT A:** These red LED illuminates when the output A channel select to the corresponding input.
5. **OUT B:** These red LED illuminates when the output B channel select to the corresponding input.
6. **ARC:** Press these button to select OUT A or OUT B Coaxial audio from source or HDTV .

ARC fuciton : If you need use ARC,your HDTV must support this fuction, When you open the ARC fuciton,the Coaxial of the matirx will output the HDTV current display content audio. Otherwise will output the matrix input source audio.

7. **RST BUTTON:** Press this button the matrix setting will recover to factory state.

5.2 Rear panel
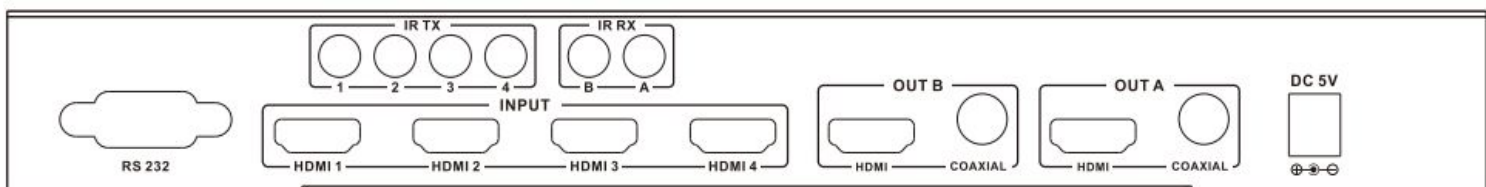
1. **RS232:** Connect the RS232 port to the PC or notebook by RS232 Cable to control the matrix.
2. **Input:** These slot is where you connect the HDMI source output from DVD, PS3,Set-top Box or Note Book.

3. **IR TX:** Connect the IR Blaster cable included in the package for IR signal transmission. Pace the IR blaster in direct line-of-sight of the equipment to be controlled.
4. **IR RX:** Connect to the IR Receiver for IR signal reception. Ensure that remote being used is within the direct line-of-sight of the IR receiver.
5. **OUT B:** The HDMI is where you connect the HDTV or monitor with HDMI cable for input source display.The Coaxial audio output is where you connect to the amplifier with coaxial cable.
6. **OUT A:** The HDMI is where you connect the HDTV or monitor with HDMI cable for input source display.The Coaxial audio output is where you connect to the amplifier with coaxial cable.
7. **DC 5V:** Plug the 5V1A DC power supply into the unit and connect the adaptor to AC wall outlet.

5.3 Connect and Operate

1. Connect the signal sources such as Blu-Ray Player, Play Station 3, audio/video receiver, satellite receivers and computers equipped with HDMI output interfaces with a short high-speed HDMI cable to the HDMI Matrix inputs.

2.Connect the HDMI output from the HDMI Matrix to a high-definition display device such as HD-LCD, HD-DLP and HD projectors with HDMI input interfaces. Use high-speed HDMI cables that are recommended for the distances that are required for each connection.

3.The Matrix is powered by an external power supply which is included. Connect power first to the source, then to the Matrix and then to each HD TV or projector.

4.The input source can be controlled from the display. This is accomplished by using an optional IR Receiver pigtail pointing away from the display(s), which can be connected with the optional HDMI IR Adapter, and inserted between the HDMI cable connector and the display with the toggle switcher at the "IR" position. The IR Transmitter pigtail is then connected to the Matrix and pointed to the source(s). A remote control is used at the display to select switch inputs and output.The matrix also have the capability of being controlled via Remote control.
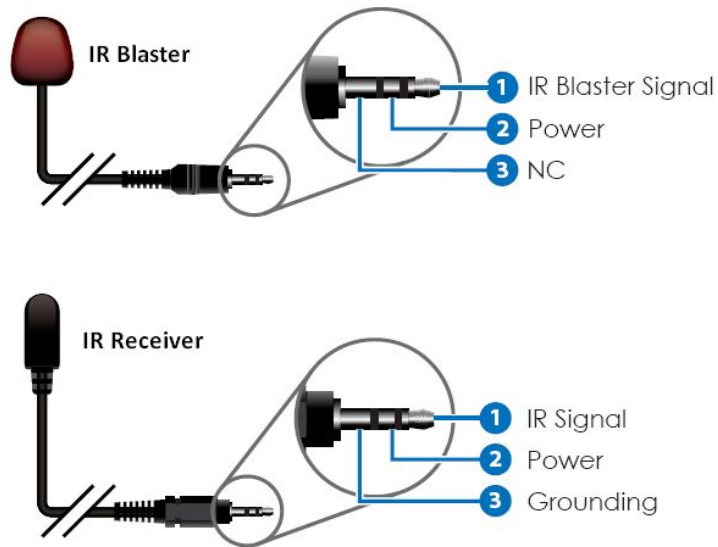
5.4 Wideband IR(30KHz---60KHz) introduction

IR RECEIVER   IR BLASTER

IR BLASTER (TX)

***To control the source*:**　Plug IR Blaster into IR TX port of transmitter unit; place blaster in front of the IR eye of the source.

IR RECEIVER (RX)

***To control the source*:**　Plug IR Receiver into IR RX port of receiver unit; place receiver at or near display.

6. Remote Control

OUTPUT A: Press IN1\IN2\IN3\IN4 button will fast switch to select input source to HDMI OUTPUT A, and the LED will indicate the corresponding input source. Press ◄ ▸ button OUTPUT A will cycle from input IN1\IN2\IN3\IN4.

OUTPUT B: Press IN1\IN2\IN3\IN4 button will fast switch to select input source to HDMI OUTPUT B, and the LED will indicate the corresponding input source. Press ◄ ▸ button OUTPUT B will cycle from input IN1\IN2\IN3\IN4.

7. PC controller user guide

Installation

The PC controller is green software. Just use a cable to connect the PC via RS232 port and copy "4x2 HDMI matrix Controller.exe" to PC to complete installation.

Preparation

1. Connect PC and multi-viewer by RS232 cable (headers of both sides of cable should be FEMALE)
2. Power-up multi-viewer
3. Double click 4x2 HDMI matrix Controller.exe icon to run it

◆ **General Page**
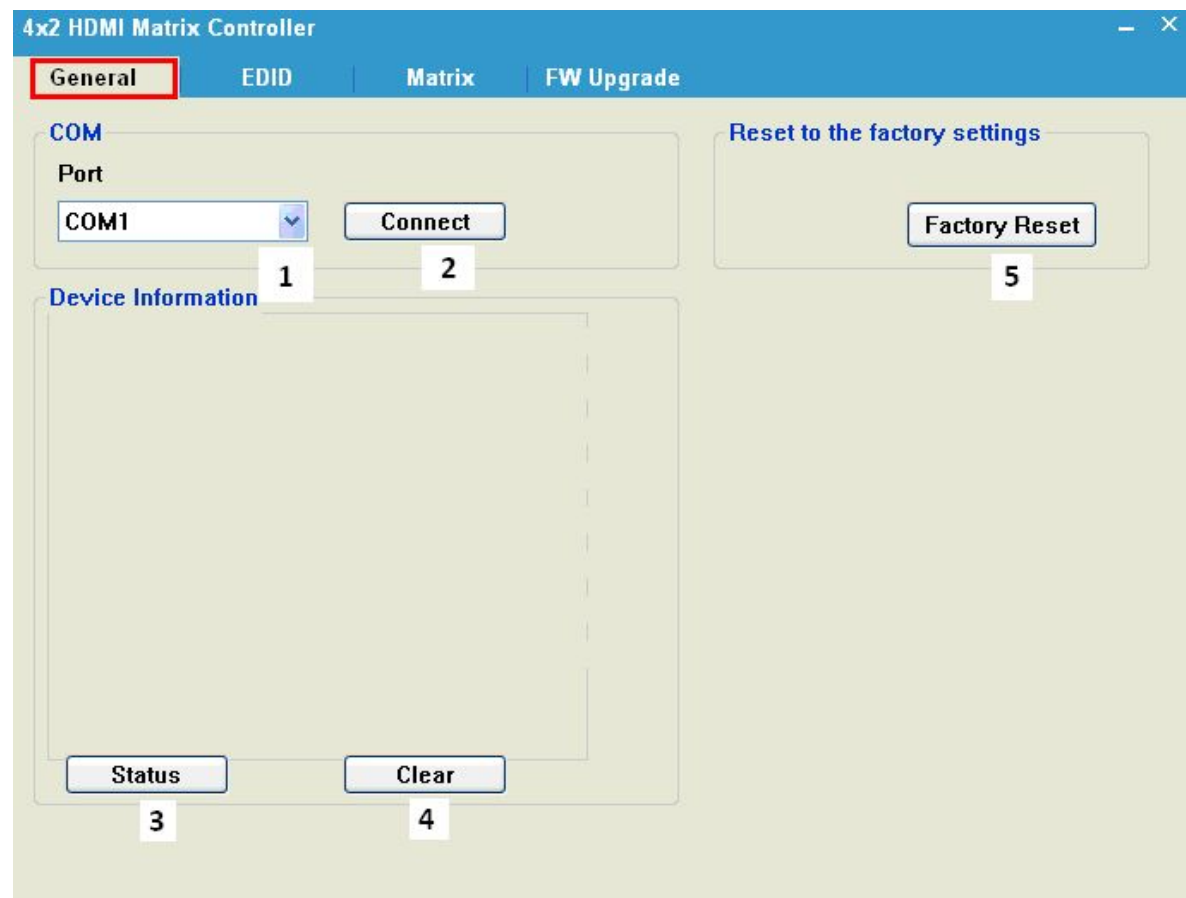
1. Select RS232 COM port
2. Click to connect or disconnect PC and Matrix
3. Click to refresh device status: include device information and Input/Output Settings on "Matrix" page
4. Click to clear device information
5. Click to reset to the factory settings

◆ **EDID Page**

The controller have 3 methods to set the EDID mode. Manual mode, Copy mode and open EDID file mode.

1. Select the needed EDID to input port and click set button the EDID will write to the selected HDMI input ports.
2. Copy the selected HDMI output or HDBT output EDID and click set button to write to the selected HDMI input ports.
3. Open the user define EDID file and click set button to write to the selected HDMI input ports.
4. Click the status button to refresh input EDID status.

◆ **Matrix Page**
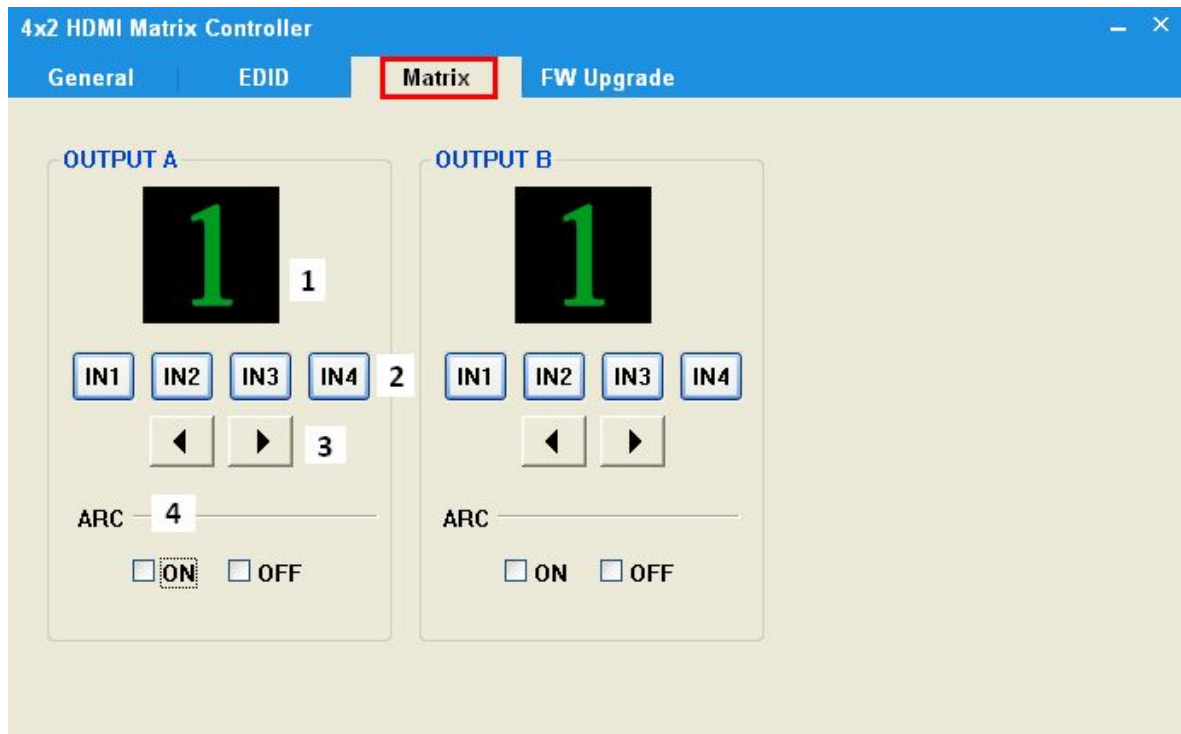
1. LED which display Input number for respective Output
2. Click to select Input port for respective Output port
3. Click to select previous or next Input port for respective Output port
4. Click to open or close output ARC fuction

◆ **Firmware Upgrade Page**

1. Click to open FW file(file extension is ".fw")
2. Click to upgrade the Matrix software
3. Display the message of the software upgrade process.

8. Connection Diagram