# **Operating Instructions**

Thanks for purchasing our product.

Please be sure to read this instruction manual carefully before using our product.









## Introduction

HDTV-88H4 is an 8-by-8 HDMI matrix. It allows any of the eight Input Channels (HDMI) to be routed to any of the eight Output Channels (HDMI), no matter the source is HDCP or not. Users can choose several different ways to control the matrix: by using infrared, RS232, and LAN and support remote control.

HDTV-88H4 internal EDID library features default EDID configurations, in addition to native EDID data for any output/display.

HDTV-88H4 offers solutions for digital entertainment center, HDTV retail and show site, HDTV, STB, DVD and projector factory, noise, space and security concerns, data center control, information distribution, conference room presentation, school and corporate training environments.

#### Motice

We. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

# ⚠ Warning

#### To reduce the risk of fire, electric shock or product damage:



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



**6.** Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in another confined space.

Ensure the unit is well ventilated.



Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



**4.** Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



**9.** Only use attachments / accessories specified by the manufacturer.



**5.** Do not place sources of naked flames, such as lighted candles, on the unit.



**10.** Refer all servicing to qualified service personnel.

# **HDMI Matrix** (Routing Type)

#### ■ Product Overview



#### 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.

#### ■ Features

- Allows up to eight HDMI audio/video devices to be independently switched to eight HDMI monitors, HDTV's, or projectors.
- The eight output channels could show the same or different source simultaneously no matter the source is HDCP or not.
- Reading and saving EDID function from displays.
- Support high definition resolutions, including:
   4Kx2K,1080p, 3D, 1080i, 720p and other standard video formats.
- Each port support both HDMI and DVI inputs.
- With extra infrared extension receiver.
- Three switching modes: panel buttons, local IR and RS232.
- HDCP compliant
- HDMI 1.4 supported.

## ■ Specifications

Operating Temperature Range	0 to +35°C (32 to +95°F)
Operating Humidity Range	5 to 90 % RH (no condensation)
Input Video Signal	0.5-1.0 volts p-p
Input DDC Signal	5 volts p-p (TTL)
Video Format Supported	DTV/HDTV:3D/ 1080P/1080i/720P/ 576P/480P/576i/480i
Audio Format Supported	DTS-HD、Dolby HD
Output Video	HDMI 1.4
Maximum Transmission Distance	4KP 15m over HDMI cable
Power Consumption	24 Watts (Max.)
Dimensions	W436.9XH211XT44.5mm
Mass (Main unit)	2800g

NOTE: Specifications are subject to change without notice. Mass and dimensions are approximate.

## ■ Package Contents

- 1 1x Main unit
- 2 1x Remote.
- 3 12V/DC Power Supply.
- ④ 2x Mounting ears.

## **■** Panel Descriptions

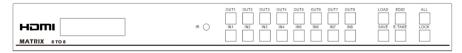


Figure 1.0 Front panel

- ① OUT1—8: HDMI output.
- ② IR: IR receiver.
- ③ IN1—8: HDMI input.
- ④ ALL: HDMI output 1--8
- ⑤ LOCK: Press this button to lock all the functions and press it again to release the lock.
- 6 LOAD: Invoke default setting.
- SAVE: Save default setting
- $\ensuremath{\$}$  EDID: Press the button to poll the EDID mode.
- 9 E-TAKE: Press this button, take the EDID mode.



Figure:1.1 Rear Panel

- ① RS232: PC RS232 port.
- ② Out 1-8: HDMI output port.
- ③ In 1-8: HDMI input port (HDMI or DVI).
- (4) SW: Power turn on or off witch
- (5) IR-EXT: The IR Extension line port, Support Local IR control.
- 6 DC12V: Power input port. Plug the 12V DC power supply

#### Control via IR remote.

User can control the HDMI route of the matrix by using the IR remote. There are two group

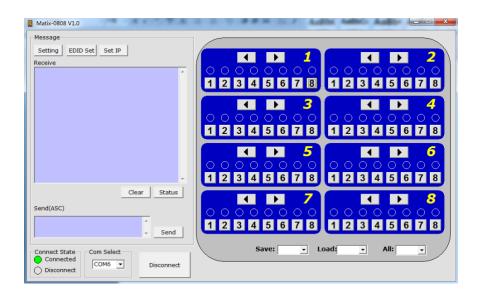


keypads for sixteen ports. Press the output source selection button in order to choose which input port corresponds to the desired output port. (For example: Output 8 select Input 7, first press output 8, then press input 7, LCD display 8-7)

NOTE: if the IR remote isn't work, please press the" system code switch key", but please do not put the remote against

### Control via RS232.

1) The Interface of HDTV-88H4 RS232 control





#### 2) The Message Window

#### 2.1) Receive Window

The "receive window" will show the message received from MX0808. When you click the Control Buttons (Free step 4) or send Control Command (Free 2.3) to MX0808, it will send out the message about "operation results" as below:

#### 2.2) Status Button

Click this button to read the status of MX0808. The status is about which input is selected by the output.

#### 2.3) Send Window

Input the control command in this window. The control command use ASCII.

#### 2.4) Setting Button

Click this button to enter Setting menu.

Select the Output Port in "Port Select" column, click "Read" button to get EDID from display equipment.

Select the Input Port in "Port Select" column, click "Write" button to set EDID of this Input Port the same as display equipment.

Click "Save as" button to save EDID read from display equipment as "\*.bin" file.

Click "Open" button to open saved "\*.bin" file, select the Input Port in "Port Select" column, click "Download" button to set EDID of this Input Port the same as "\*.bin" file.

#### 3) The Com status

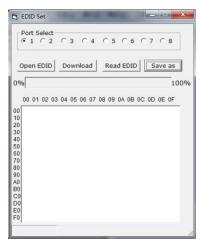
#### 3.1) Connect state.

Connect state shows the com open or not.

#### 3.2) Com select.

- → Select which com you will use.
- → Connect button.

The word on this button will change when the connection state changes. If the word is "Disconnect",



then click this button, the com will be closed. If the word is "Connect", then click this button, the com will be opened.

#### 4) Control command format

If user want to write his own control software, below are data format and baud rate setting.



Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits

Parity:	None
Stop bits:	1 bit
Flow control:	None

## 5) RS232 command

command	feedback	description
cir_0x\r\n	s1y	Output 1 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_1x\r\n	s2y	Output 2 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_2x\r\n	s3y	Output 3 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_3x\r\n	s4y	Output 4 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_4x\r\n	 s5y	Output 5 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range

		from 1~8.
cir_5x\r\n	s6y	Output 6 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_6x\r\n	s7y	Output 7 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
cir_7x\r\n	s8y	Output 8 select input 1~8
		"x": indicate the input port, range
		from 0~7.
		"y": indicate the input port, range
		from 1~8.
asw_x\r\n	s1y	All output select input x;
	s2y	"x": indicate the input port, range
	s3y	from 0~7.
	s4y	"y": indicate the input port, range
	s5y	from 1~8.
	s6y	
	s7y	
	s8y	
bc_\r\n	s1x	Obtain the input status.
	s2x	"x": indicate the input port, range
	s3x	from 1~8.
	s4x	
	s5x	
	s6x	
	s7x	

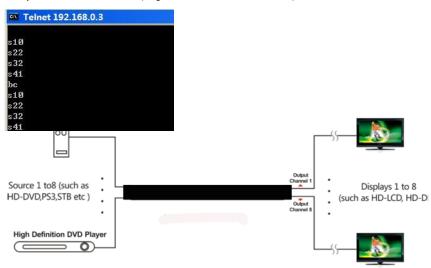
	s8x	
sed_x_y\r\n	sed_x_y	Copy edid from "x" to "y",
		"x""y" range from 0~7
rst_\r\n		Reset factory settings.

#### **Telnet Control**

Telnet matrix's IP address

```
ST C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [版本 5.1.2600]
(C) 版权所有 1985-2001 Microsoft Corp.
C:\Documents and Settings\user>telnet 192.168.0.3_
```

Now you can control the matrix (Page 14: Control command format)



## ■ Connecting and operating

- 1) Connect the HDMI input source (CF such as HD-DVD/ PS3/STB etc.) Into HDTV-88H4.
- 2) Connect HDMI OUT of HDTV-88H4 to display equipment.

- 3) Connect the Broadband IR receive cable into HDTV-88H4 IR RX ports.
- 4) Power on the input source you want to show. (EFKeep the unused input power off, otherwise it may interfere the normal display).
- 5) Plug the power cable into HDTV-88H4.
- 6) Turn on the power, when the LED panel stops flashing circularly, the initialization of the matrix is ready.
- 7) Turn on the displays you want to watch.
- 8) Use the remote to control the matrix, or using Front Panel and RS232

#### ■ Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzine to clean this unit.

### ■ Product Service

#### Provided Service

- 1) Damage Requiring service: The unit should be serviced by qualified service personnel if:
  - The DC power supply cord or AC adaptor has been damaged;
  - Objects or liquids have gotten into the unit;
  - The unit has been exposed to rain;
  - The unit does not operate normally or exhibits a marked change in performance;
  - The unit has been dropped or the cabinet damaged.
- Servicing Personnel: Do not attempt to service the unit beyond that described in these
  operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) Replacement parts: When parts need replacing ensure the service uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4) Safety check: After repairs or service, ask the service to perform safety checks to confirm that the unit is in proper working condition.

#### Mail-In Service

When shipping the unit, carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a daytime phone and/or email address where you can be reached.

If repair is needed during the limited warranty period the purchaser will be required to furnish a sales receipt/proof of purchase indicating date of purchase, amount paid and place of purchase. Customer will be charged for the repair of any unit received without such proof of purchase.

## Warrantv

If your product does not work properly because of a defect in materials or workmanship, We (referred to as "the warrantor") will, for the length of the period indicated as below, (Parts (1) Year,

**Labor(90)** Days)which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

## Warranty Limits and Exclusions

- This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, maladjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.
- There are no express warranties except as listed under "limited warranty coverage". The warrantor is not liable for incidental or consequential damages resulting from the use of this product or arising out of any breach of this warranty. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive but are for illustration only.)
- Parts and service, which are not covered by this limited warranty, are your responsibility.