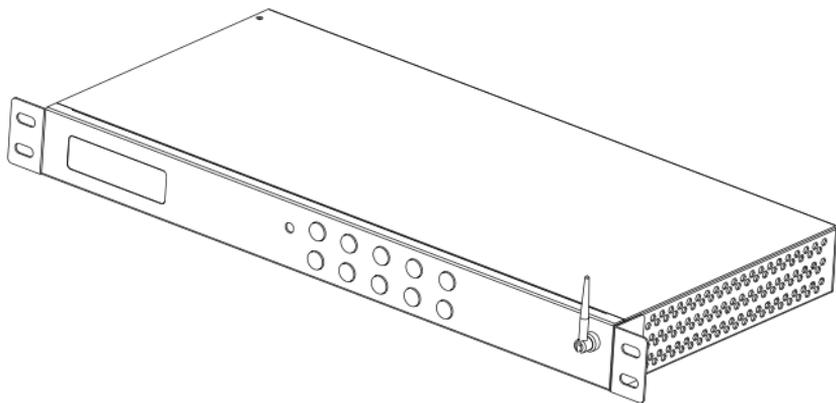


## HDMI Matrix • 8x8 built-in WiFi

**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**

- Any eight Sources to Any eight Displays, Each port supports HDMI or DVI inputs.
- The HDMI input is compensated, clock/phase adjusted and jitter free so all the user sees is a high quality HDMI signal.
- Independent switchable EDID function for choosing which resolution to display.
- Support high definition resolutions 1080p, 1080i, 720p and other standard video formats.
- Supports LPCM 7.1 channel output from each of the independent HDMI ports.
- Switching modes: panel buttons, local IR, RS232 and Smart phone.
- HDCP compliant.
- 1U rack design for easy installation.
- Compliant HDCP.
- With WiFi .

**NOTICE**

Our company reserve the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

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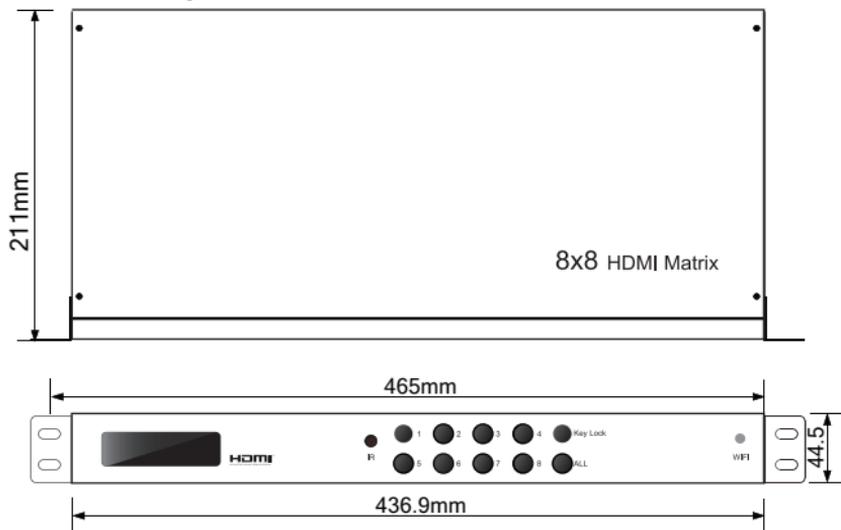
Product Service

Warranty

### Packing contents

- 1) Main Unit: 8x8 HDMI Matrix
- 2) Power supply DC 12V 3A
- 3) Remote Controller
- 4) IR-RX cable x 1PCS
- 5) M3x5 Screw x 6PCS
- 6) Operating Instructions
- 7) Mounting ear
- 8) RS232 cable

### Dimensional drawing

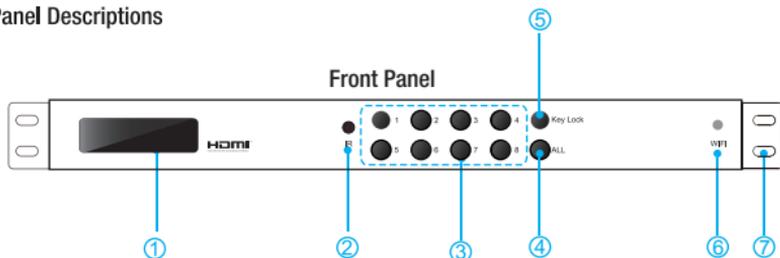


## Specifications

Operating Temperature Range	-5 to +35 C(+23°to +95°F)
Operating Humidity Range	5 to 90%RH (No Condensation)
Video Bandwidth	225MHz/6.75Gbps
Video Format Supported	Up to 1080p@60Hz@36 b/pixels, support 3D
Connectors	HDMI receptacle. Power connector terminal Power DC receptacle IR Extender
Transmission Distance	1080P 15m over HDMI cable
Power supply	110-240V/ 12VDC power supply
Power Consumption	24Watts
Enclosure	Cold-Rolled (Cold Rolled) Steel
Dimensions	W436.9xH211xT44.5mm
Weight	2800g

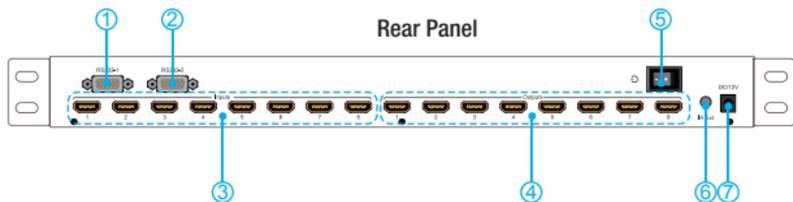
Note: Specifications are subject to change without notice. Mass and dimensions are approximate.

## Panel Descriptions



- ① This monitor displays your settings information with each output and input selection
- ② IR windows:: infrared sensor to receive any IR commands from the IR remote control.
- ③ OUT 1~8 & IN 1~8: Press the output source selection button in order to choose which input port corresponds to the desired output port. First select your output port from 1-8, wait 1 sec, then choose the desired input port from ports 1-8. Each output selection only allows a single input setting each time.

- ④ ALL: Press this button to set all the outputs to display with the same input. First pressing the "All" button then press an input number to confirm the selection.
- ⑤ LOCK: Press this button to lock all the functions and press it again to release the lock.
- ⑥ WIFI: This slot is used to install the antenna.
- ⑦ Assembly ear



- ① RS232 port :For HDMI Matrix control on PC.
- ② RS232 port :For WIFI module setup.
- ③ HDMI input ports(HDMI or DVI) .
- ④ HDMI Output ports.
- ⑤ POWER: Press this button to turn the system on.
- ⑥ IR extender : This slot is where you can extend your IR receiver with an IR extender cable that supports only 38KHz.
- ⑦ Power input : Plug the 12V DC power supply into the unit and connect the adaptor to an AC wall outlet.

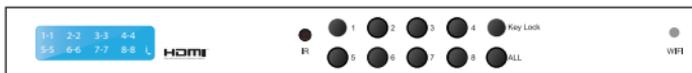
### Connecting and operating

- 1) Connect the HDMI input sources into 8x8 HDMI Matrix and note the input chosen.
- 2) Connect HDMI OUT of 8x8 HDMI Matrix to display equipment.
- 3) Connect IR-RX cable into IR-RX Ext port on the receiver and affix the IR receiver in direct line of site with the handheld remote control. It is recommended to affix the receiver on the display frame /bezel or the display stand.

**Note:** Do not affix the emitter until the placement is tested.

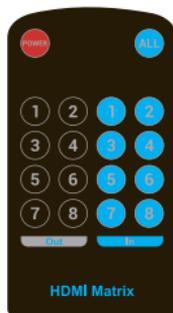
- 4) Power up all units, the matrix, Receiver, sources and displays.
- 5) Use remote or select the button on the front panel to choose the desired input source.

## Operation



### 1. Front panel control

The HDMI matrix front panel control switching inputs to the various outputs. There are four groups of LEDs for each output port. The LED lit on the position means that the output port selects this input as its source.



### 2. Local IR remote control

User can control the HDMI route of the matrix by using the IR remote. There are two group key pads 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 source, first Press out 8, then press in 7, LCD will display "8-7")

### 3. IR extender control

User can use the IR receiver cable to change the IR receiver position.

If controlling the HDMI matrix through the 1/8" (3.5 mm) input jack on the rear panel, connect the IR cable directly to the matrix rear IR Ext socket.

## 4. RS232 remote control.

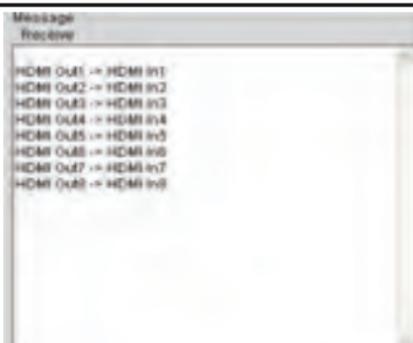
### 1. The Message Window



## Operating Instructions

### 2.1 Receive Window

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



### 2.2 Status Button

Click this button to read the status of Matrix. 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.



## 3 The Com Status



### 3.1 connect state.

Connect state shows the com connected or not. If it is connected, the state is green. Otherwise, the state is red.

### 3.2 com select.

→ Select which com you will use.

→ Connect button.

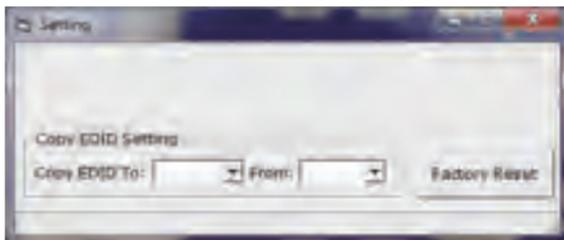
The word on this button will change when the connection state changes. If the word is "Disconnect", then click this button, the com will be closed. If the word is "Connect", then click this button, the com will be opened.

### 3.3 Com port setting:

Baud Rate:	9600 bps
Data bits:	8 bits
Parity:	None
Stop bits:	1 bit
Flow control:	None

#### 4 Setting Button

Click this button to enter Setting menu. If the signal is not stable, please turn on the HDMI long cable mode.



#### 4.1 EDID Set button

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

Select the Input Port in "Port Select" column, click "Download" 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 EDID" 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.



### 5.Android OS control

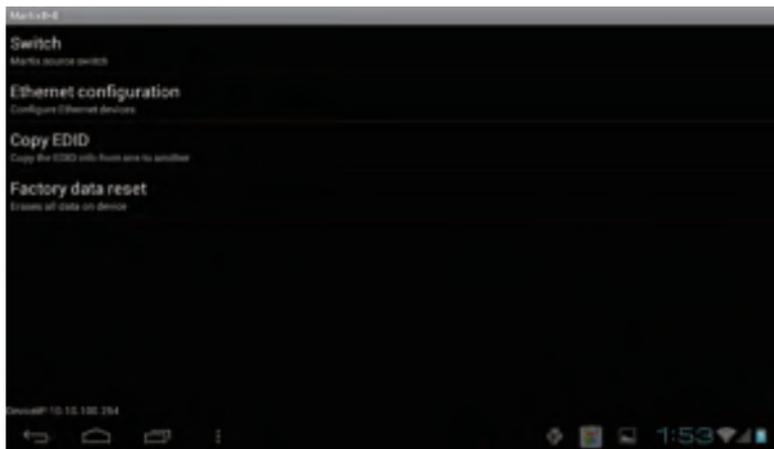
#### 5.1 Install android apk(Matrix88.apk)

#### 5.2 Connect device

Set the Wifi in your phone/ pad, run "matrix 88" , input equipment Wifi module's IP address (10.10.100.254), then click "connect" to enter.



### Main menu



## 6.IOS control

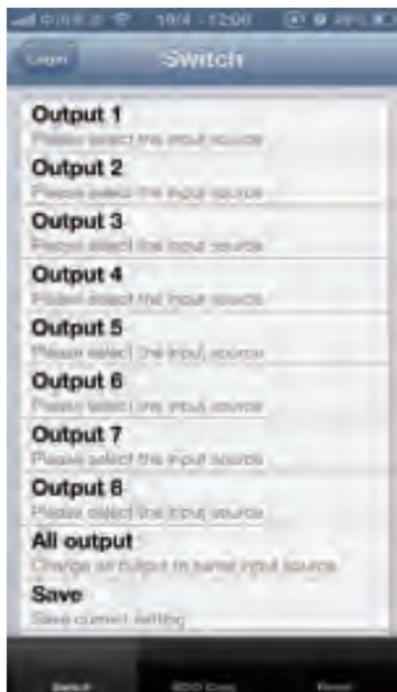
6.1 Go to "App store", search "Matrix88", download and install the APP.

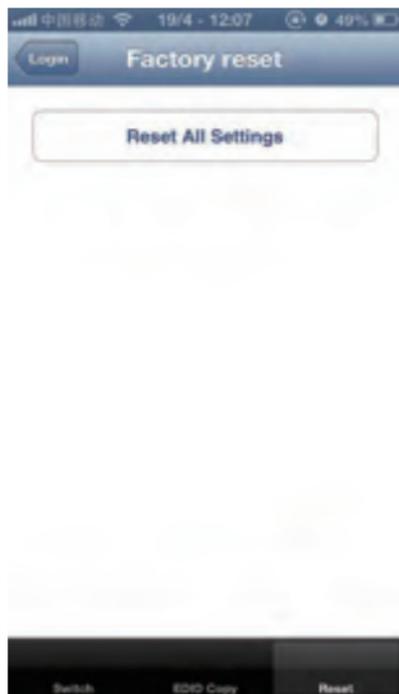
## 6.2 Connect device

Set the Wifi in your iPhone/iPad, run "Matrix88", input equipment WIFI module's IP address (10.10.100.254), then click "Button" to enter.



Main menu



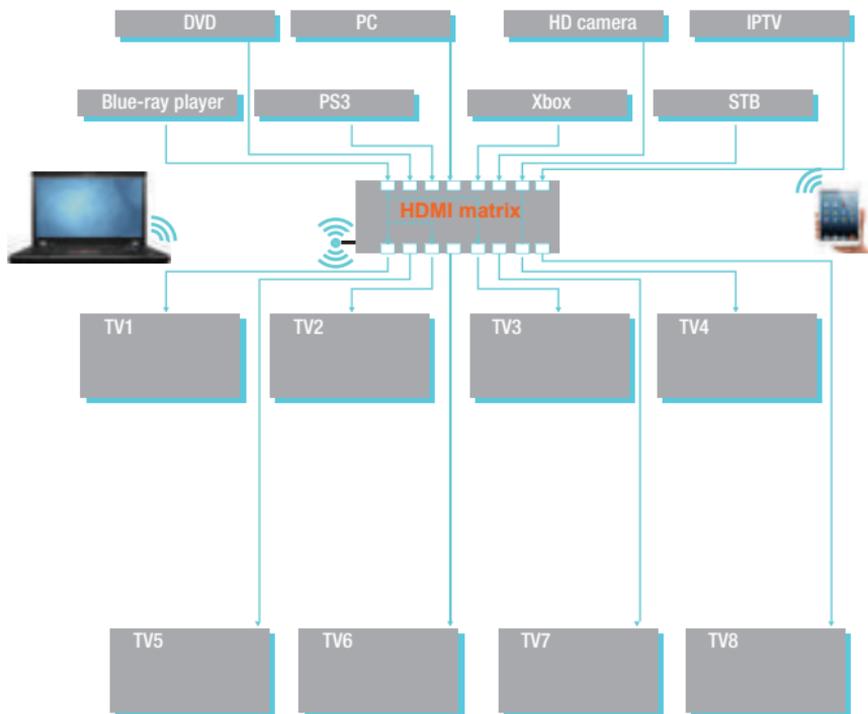


RS-232 pin assignment

HDMI Matrix			Remote Control Console	
PIN	Assignment		PIN	Assignment
1	Assignment			
2	NC			
3	TX	→	1	
4	RX	←	2	
5	NC		3	
6	GND	—	4	
7	NC		5	
8	NC		6	
9	NC		7	
	NC		8	
	NC		9	

## Applications

Commercial and residential AV systems, Classroom projector systems, digital signage, Boardroom systems, collaborative PC systems



HDMI cable —————

## RS-232 Commands

command	HEX	feedback	description
cir_0x\r\n	63 69 72 20 30 xx 0D 0A	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	63 69 72 20 31 xx 0D 0A	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	63 69 72 20 32 xx 0D 0A	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	63 69 72 20 33 xx 0D 0A	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	63 69 72 20 34 xx 0D 0A	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	63 69 72 20 35 xx 0D 0A	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	63 69 72 20 36 xx 0D 0A	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	63 69 72 20 37 xx 0D 0A	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	61 73 77 20 xx 0D 0A	s1y s2y s3y s4y s5y s6y s7y s8y	All output select input x; "x" : indicate the input port, range from 0~7. "y" : indicate the input port, range from 1~8.
bc_\r\n	61 73 77 20 xx 0D 0A	s1x s2x s3x s4x s5x s6x s7x s8x	Obtain the input status. "x" : indicate the input port, range from 1~8.
sed_x_y\r\n	73 65 64 20 xx yy 0D 0A	sed_x_y	Copy edid from "x" to "y", "x" "y" range from 0~7
rst_\r\n	72 73 74 20 0D 0A		Reset factory settings

## MAINTENANCE

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

## PRODUCT SERVICE

### Damage requiring service:

The unit should be serviced by qualified service personnel if:

- a) The DC power supply cord or AC adaptor has been damaged;
- b) Objects or liquids have gotten into the unit;
- c) The unit has been exposed to rain;
- d) The unit does not operate normally or exhibits a marked change in performance;
- e) 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.

**Replacement parts:** When parts need replacing ensure the servicer 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.

**Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

## WARRANTY

If your product does not work properly because of a defect in materials or workmanship, our Company (referred to as "the warrantor" ) will, for the length of the period indicated as below, (Parts(2)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.

## 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 day time phone and/or email address where you can be reached.

### LIMITED WARRANTY LIMITS AND EXCLUSIONS

1) 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 warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

2) 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, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.