Pro.2

4x4 HDMI2.0 Matrix
Support 4K@60hz YUV4:4:4, 18Gbps, HDR
Model: HDMIMX44V18G
Operating Instruction

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.

SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Table of Contents

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.

1. Features

- HDMI 2.0 version (Support 4K@60Hz YUV4:4:4)
- Bandwidth upto 18Gbps
- HDCP2.2 input ,HDCP2.2 output
- HDCP1.4 input, HDCP1.4 output
- Support HDR10
- 4xHDMI Input, 4xHDMI output with 4xSPDIF Audio
- Any one of the 4 Ultra HD sources to any one of the 4 Ultra HD displays
- Support Panel Button, Local IR, RS232 Control with command, IP Control, Web GUI Control
- Support Dolby True HD and DTS-HD master audio, Dolby Atmos under copy EDID mode
- Support firmware updating through USB port
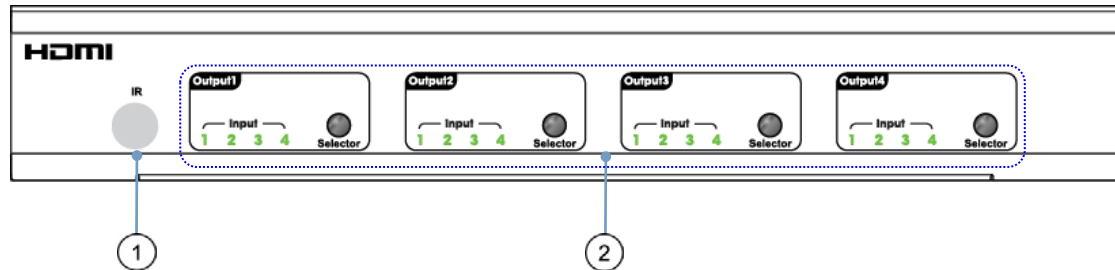- Unit size: L216XW105XH34mm

2. Package Contents

1). 1x HDMI Matrix
2). 1x 5V DC power supply
3). 1x Remote control
4). 1x IR Ext RX Cable
5). 1x Phoenix plugs for RS232 cable termination
6). 1x mounting kit
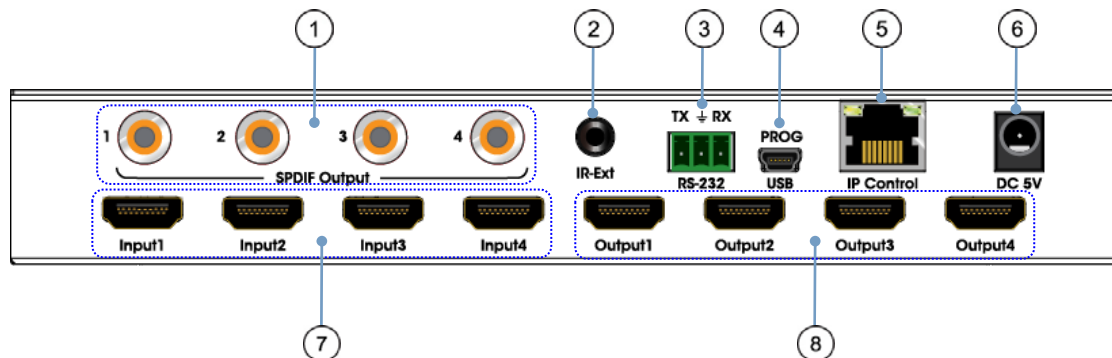7). 1x CD for control software & user manual

3. Specifications

Operating Temperature	23°F to 113°F (-5°C to 45°C)
Storage Temperature	-4°F to 140°F (-20°C to 60°C)
Resolution	480p@60hz,576P@50hz,720P@60hz, 1080P@24hz,1080P@50hz,1080P@60hz,4K@24hz,4K@30hz, 4K@60hz YUV4:2:0, 4K@ 60hz YUV4:4:4
HDCP Compliant	HDCP2.2 and HDCP1.4
Output Video	HDMI2.0 and HDMI 1.4
Audio Format Supported	PCM, Dolby5.1/7.1, DTS5.1/7.1 digital audio, Dolby Atmos
RS-232 serial port	3PIN terminal block connectors
Ethernet port (IP control)	RJ45, female
IR Ext port	1x3.5mm stereo jack
USB port	Micro 5P female
Bandwidth	18 Gbps
Default IP	192.168.1.168
Rack-Mountable	Rack ears included
Dimensions(WxHxD)	L216XW105XH34mm
Net Weight	0.72kg
Power consumption	13W(Max)

4. Panel Descriptions

① IR receive window.

② Output button OUT1~4: choose the desired output port from input ports 1~4.

Note: 1) Turn on/off DHCP function: press the selector of output 1 and output 2 for 3 seconds.
2) Restore factory settings: when all outputs select input 1, press the selector of output 3 and output 4 for 3 seconds.

① SPDIF Audio output.

② For IR external receiver cable.

③ RS232 for control or upgrading the firmware.

④ USB micro 5P port for upgrading the firmware.

⑤ IP control.

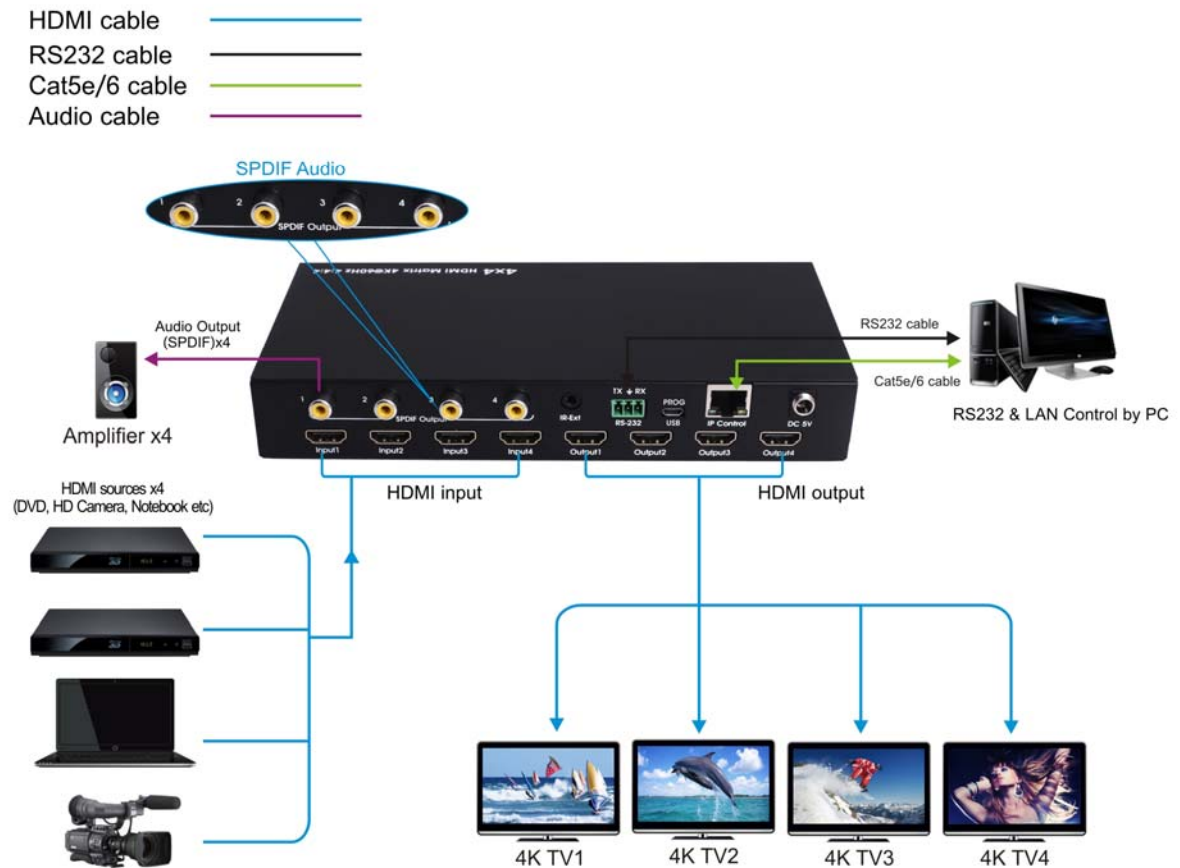⑥ DC power input.

⑦ HDMI input port.

⑧ HDMI output port.

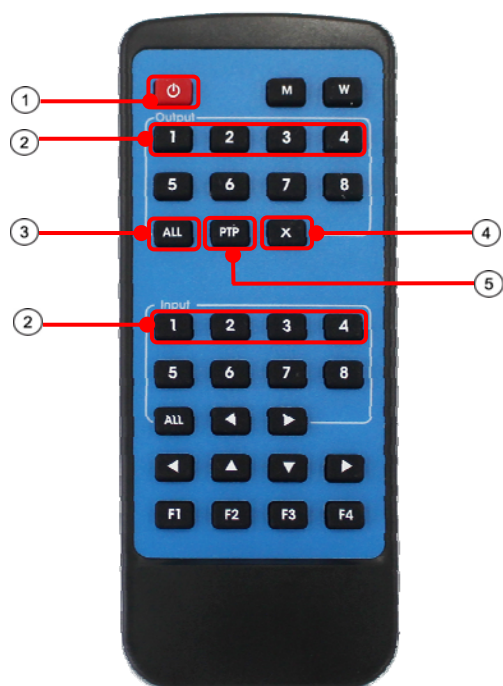⚠ **Warning: Misplug the power port will destroy products and TVs.**

5. Connecting and Operating

1. Connect source devices to input ports of the matrix

2. Connect HDMI output ports to TV or other HDMI sink devices.

3. Optional: connect RS232 cable from PC RS232 port.

4. Optional: connect an Ethernet cable from the TCP/IP port on the matrix to a local area network.

5. Connect 5V POWER supply to DC power socket.

6. Power on the matrix, HDMI sources and displays.

6. Application Diagram

7. Remote Control Description

① Standby Mode.

② OUTPUT-X select INPUT-Y:

Press OUTPUT-X (X means 1 to 4 of outputs)

Press INPUT-Y (Y means 1 to 4 of inputs)

③ All outputs select INPUT-Y:

Press ALL button in zone OUTPUT

Press INPUT-Y button (Y means 1 to 4 of inputs),

then INPUT-Y switched to ALL OUTPUTS.

④ Cancel Button: Cancel the switching operation

⑤ PTP button: Mirror all inputs and outputs

(Ex. Input 1 to output 1, input 2 to output 2, etc):

Press PTP button in Zone OUTPUT.

8. RS232 Pin Assignment

Matrix		Remote Control Console	
Assignment		PIN	Assignment
		1	NC
Tx		2	Rx
Rx		3	Tx
		4	NC
GND		5	GND
		6	NC
		7	NC
		8	NC
		9	NC

9. RS232 Control

9.1 Software control

HDMI20Mux4x4
_2v0
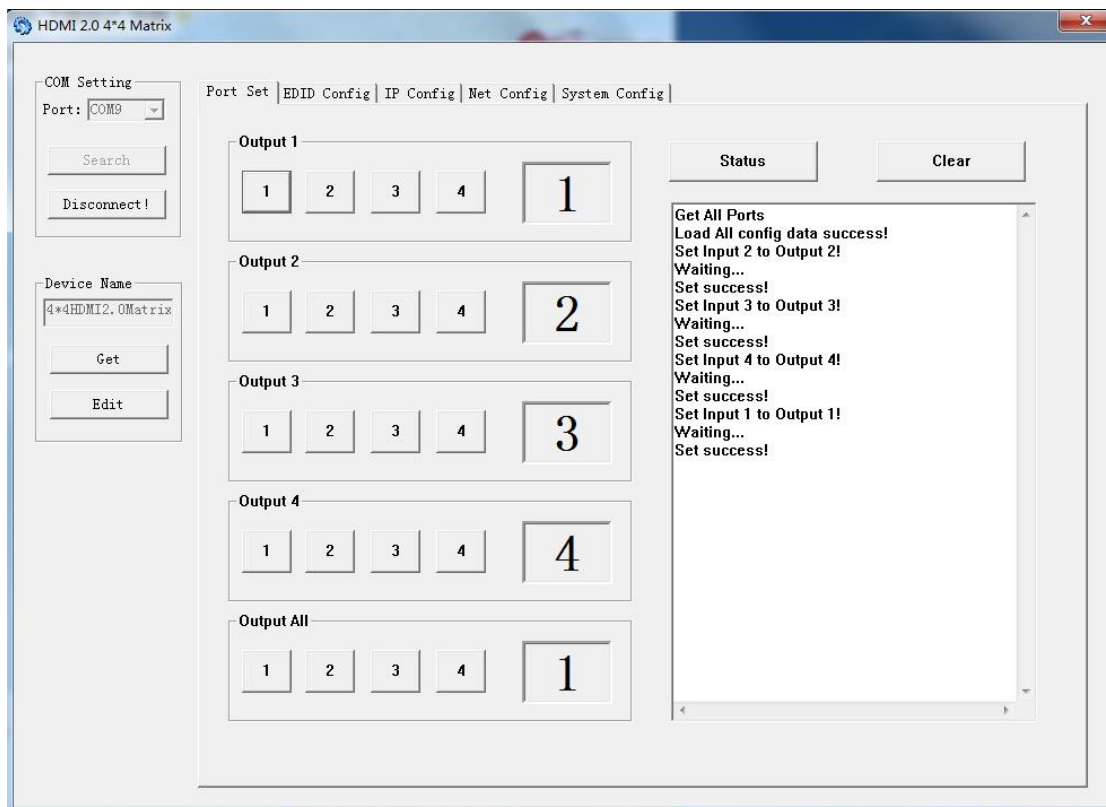
Connect the 4x4 Matrix to PC with a RS232 cable, open the software included in the manual. On the COM Setting session, select the COM port according to your PC and click Connect to get connected.

On this COM setting session, you can also change the Device name, Device name support up to 16 characters. Save or edit your status by clicking the Edit button.
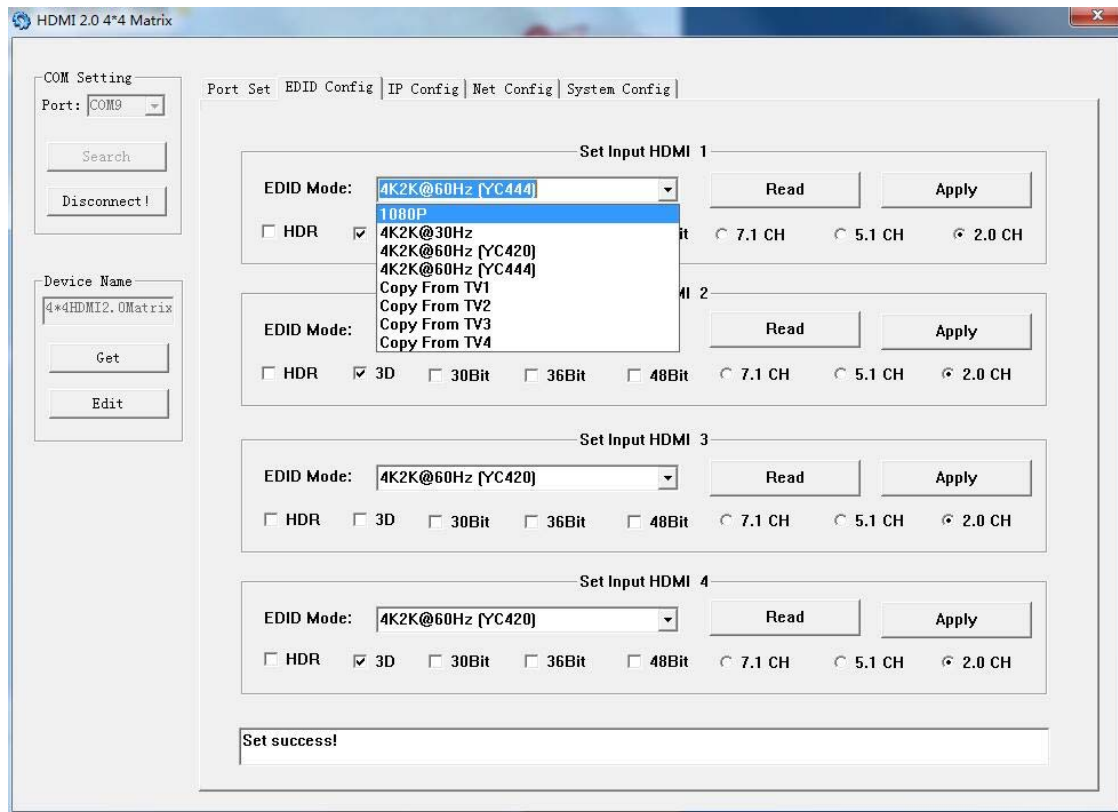
Come to Port Set session to select or switch your input sources for each output, We can read the current status by clicking the "Status" button, or Clear our historical operating record by clicking "Clear" button. The right down blank shows the operating history.
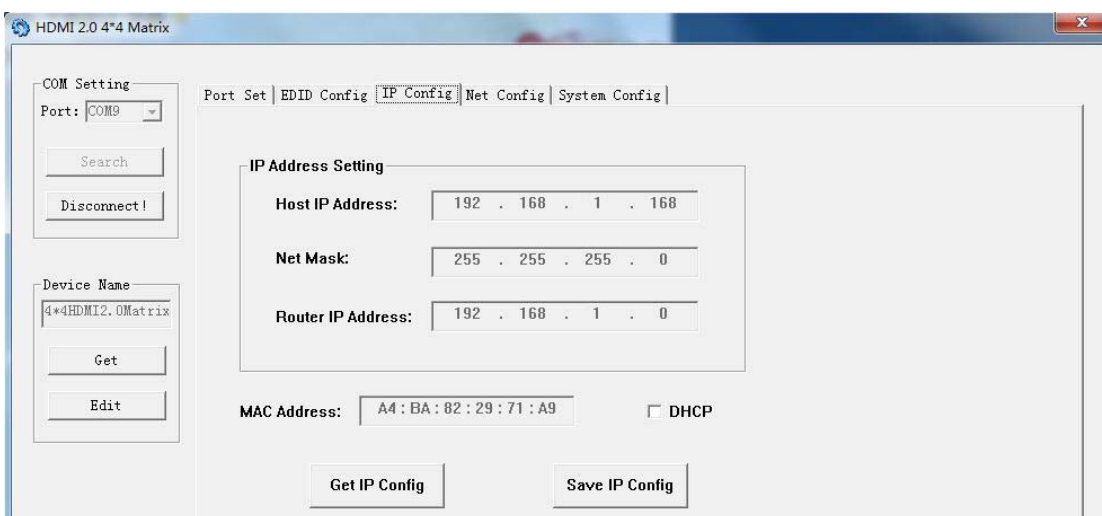

Picture 1: Porting Setting

The EDID session helps us to Read and Configure EDID for each input, such as HDR, 3D, Data rates and Audio channel.
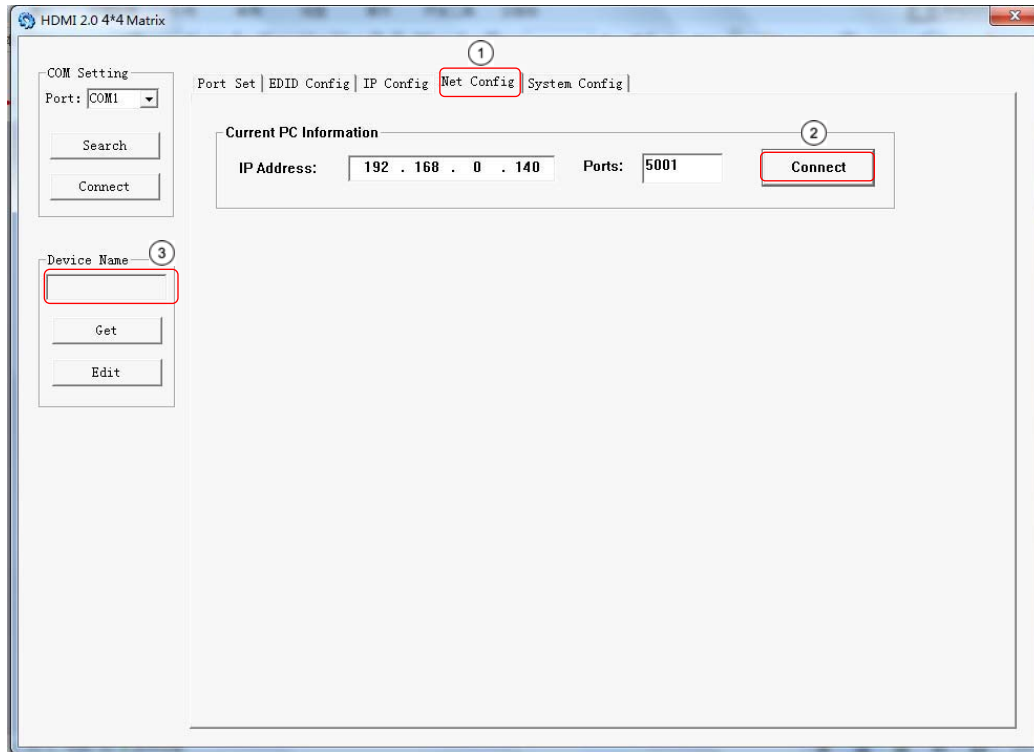

Picture 2: EDID Setting

The IP configure session helps to read and configure the IP address and MAC of the Matrix. Click DHCP if you want the router assign an automatic IP for the Matrix.
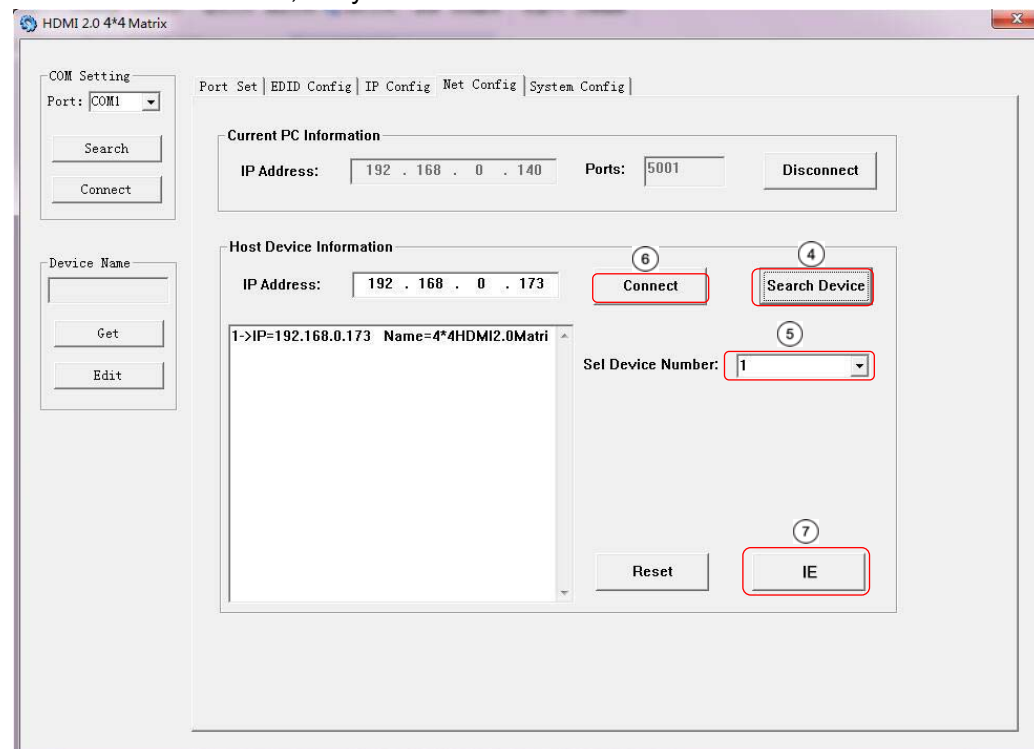

Picture 3: IP Config

The Net Config session allows us to configure the PC and Matrix in the same LAN with the IP Address and connection.

Click "Net config" → "Connect" → "Search Device" → "Sel Device Number" →"Connect" then you can see the device name, it meas connect successfully.
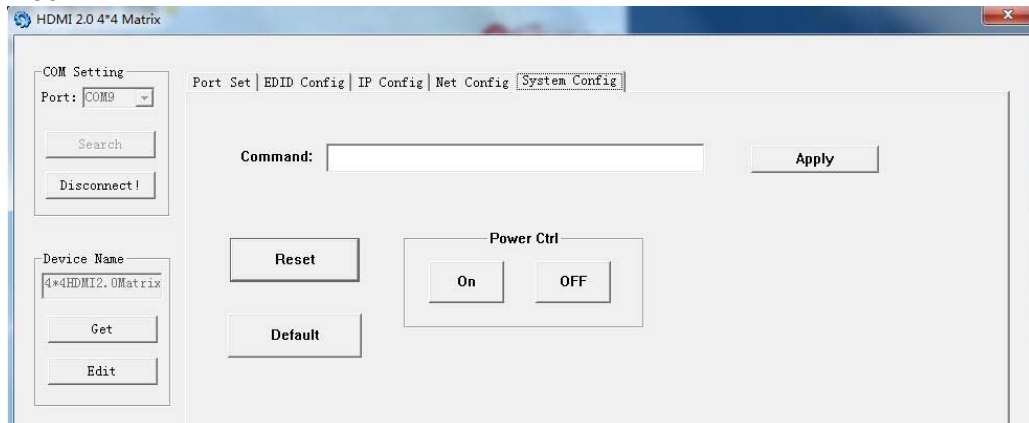

Picture 4: Net Config

You can also click "IE", easy and click to enter into web.

Picture 5: Net Config

The last session is System Config, which allows power ON/OFF or reset, default the Matrix.
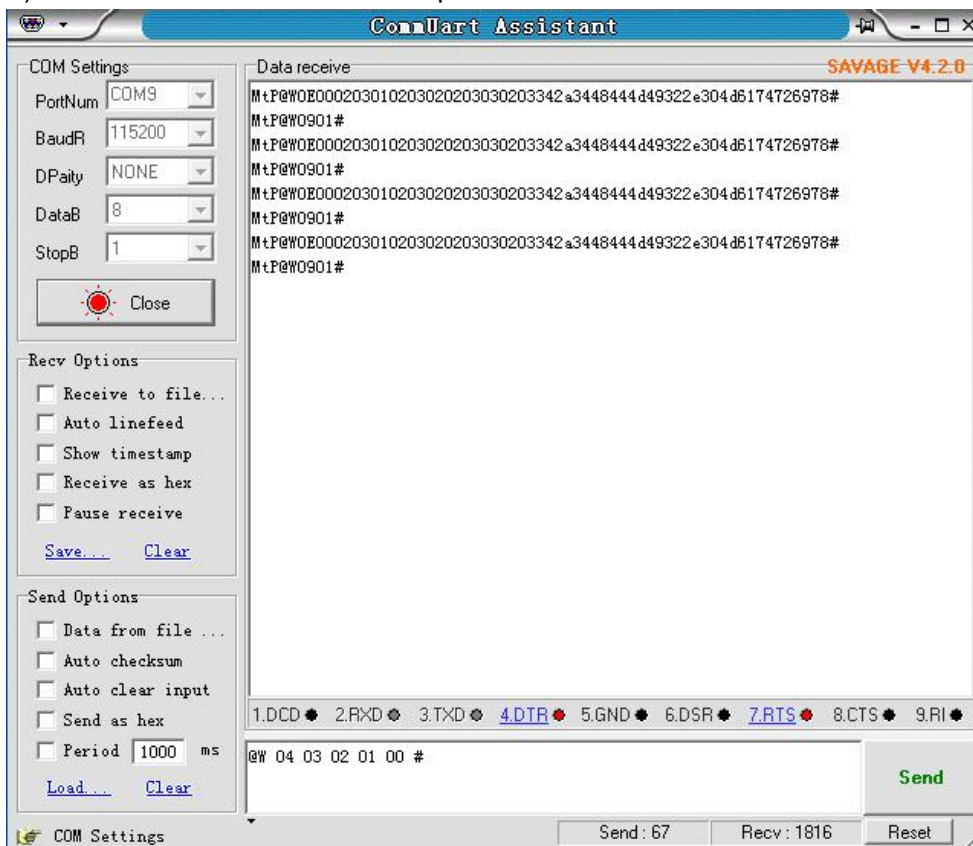

Picture 6: System config

9.2 Command Control

1). Open CommUart Assistant.

2). Comport setting:

Baud Rate:	115200 bps
Parity:	None
Data Bits:	8 bit
Stop Bits:	1 bit

3). Enter Port Command in Send options.

Picture 7

4). Command

Command	Function	Note
@W 04 00 01 02 03 #	PTP Function	Mirror all inputs and outputs (Ex. Input 1 to output 1, input 2 to output 2, etc)
@W 50 #	Reboot	
@W 51 #	Restore Factory Setting	
@W 0F 00 #	Standby	00: Standby Mode 01: Cancel "Standby Mode"

5). Select HDMI input for HDMI output

Command	Description
00	Output1
01	Output2
02	Output3
03	Output4
04	All Output
00	Input1
01	Input2
02	Input3
03	Input4

E.g: @W 00 00 #: Output 1 display Input1

Output 1 └──┐ ┌── Input1

6). EDID Setting

@W XX AA BB #:

Parameter Description:

XX for configuration of **"INPUT EDID"**

Command	05	06	07	08
Description	Input1	Input2	Input3	Input4

AA for selecting **"Video Mode"**

Command	00	01	02	03
Description	1080P	4K2K_30	4K2K_60(YC420)	4K2K_60(YC444)

BB for selecting below function

Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
HDR	48Bit	36Bit	30Bit	7.1CH	5.1CH	2CH	3D
1	1	1	1	1	1	1	1
0	0	0	0	0	0	0	0

"1" : choose the function, "0" : doesn't choose the function.

E.g: 11001001: HDR, 48Bit, 7.1CH, 3D

Chang Binary code "11001001" to hexadecimal format "C9".

E.g: @W 05 03 C9 #

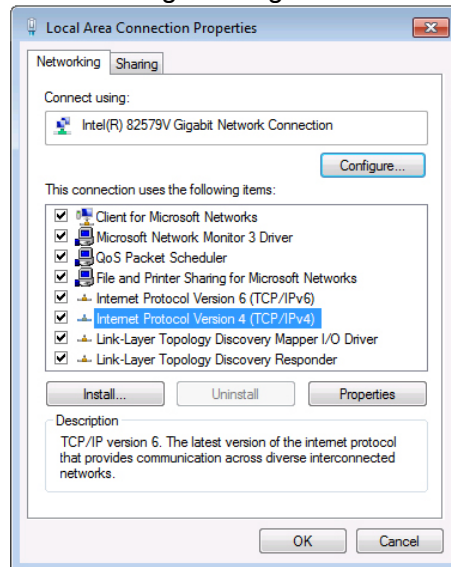The EDID of input 1 is: 4K2K_60(YC444)、HDR、48Bit、7.1CH、3D.

10. Web Control

10.1 Static IP Address.
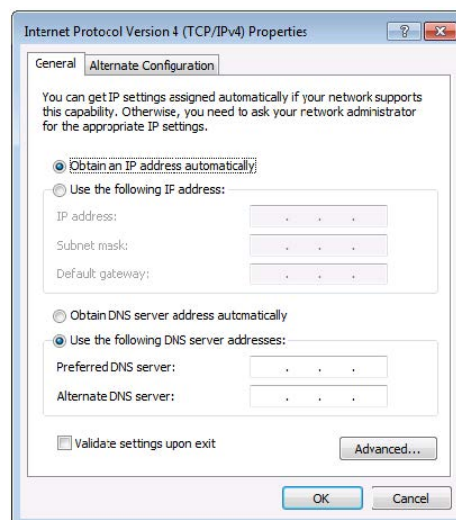
The default IP Address of HDMI Matrix is 192.168.1.168.

10.1.1 Change the IP address of your PC.

1). Connect the HDMI Matrix and PC to the LAN.

2). Configure your PC as follows:

① Click **Start** > **Control Panel** > **Network and Sharing Center.**

② Click **Change Adapter Settings**.

③ Highlight the network adapter you want to use to connect to the device and click **Change settings of this connection**.

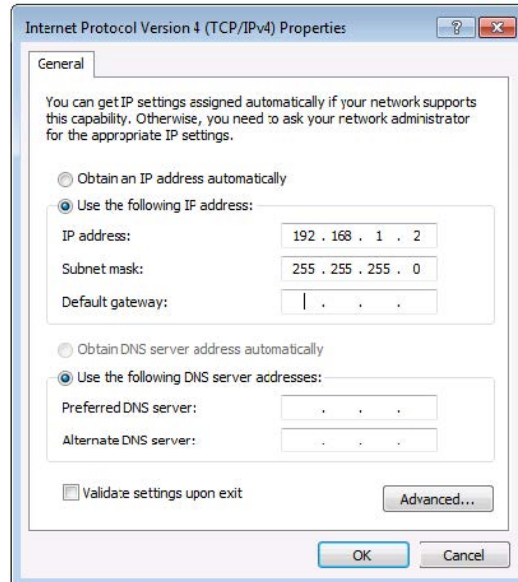3). Connect to the device and click change settings of this connection:

Picture 8

4). Highlight **Internet Protocol Version 4 (TCP/IPv4)** by clicking on the item.

5). Click **Properties**.

Picture 9

6). Select **Use the following IP Address** for static IP addressing and fill in the details.

For TCP/IPv4 you can use any IP address in the range 192.168.1.2 to 192.168.1.254 (excluding 192.168.1.168).
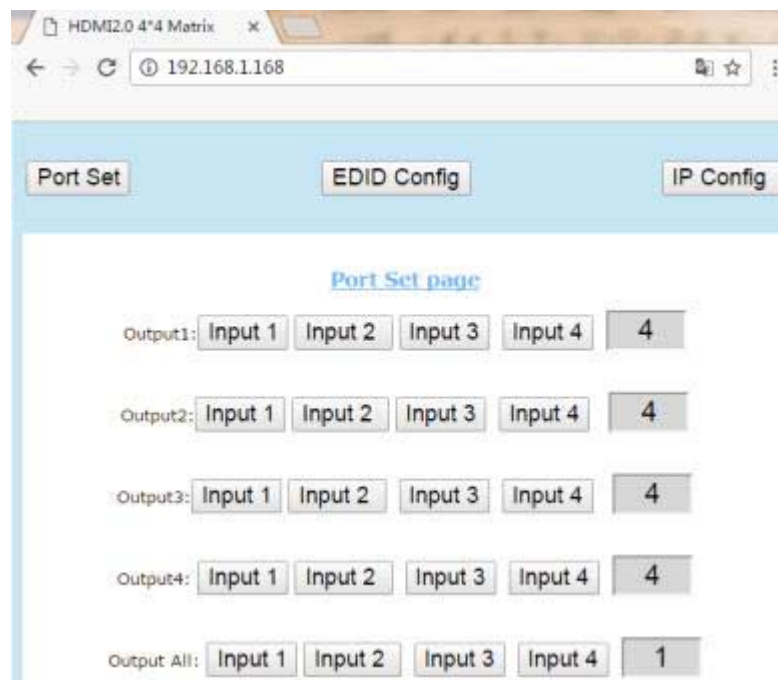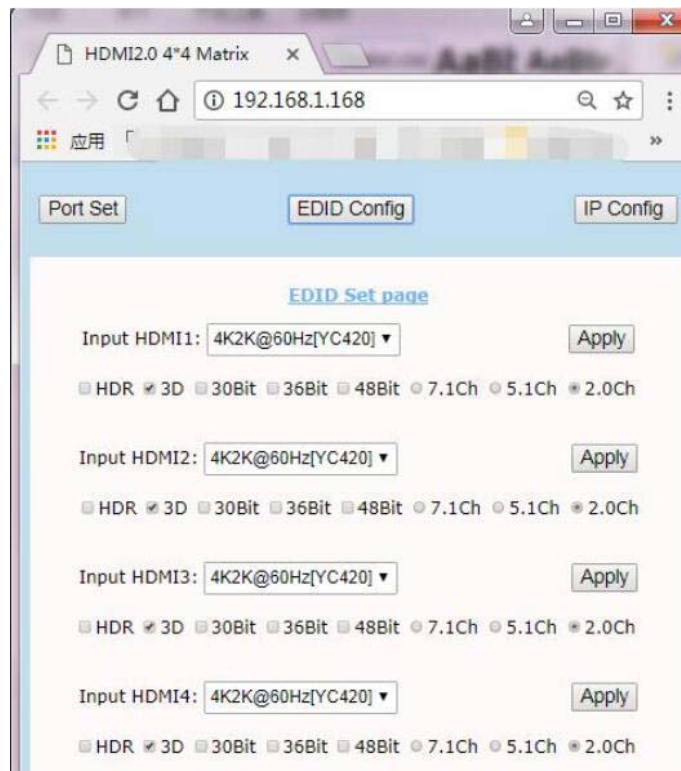

Picture 10

7). Click **OK**.

8). Click **Close**.

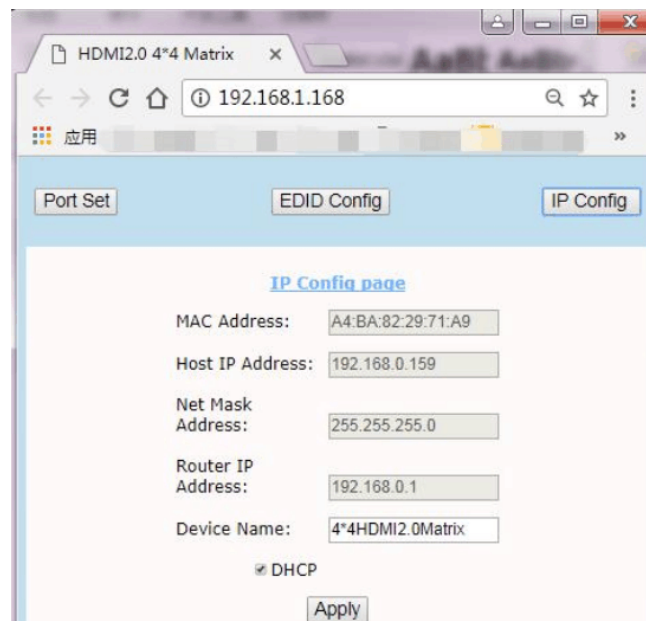**10.1.2 Open the web browser and control the matrix.**

1). Open the Web browser and enter the IP address of the HDMI Matrix:192.168.1.168, then you can set the function as below pictures:

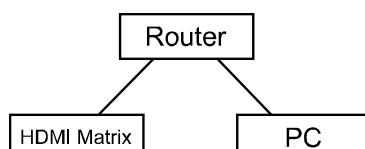Picture 11: Port Setting Page

Picture 12: EDID Setting Page

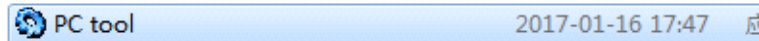Picture 13: IP Configuration Page

10.2 DHCP

You can also choose "DHCP" for HDMI Matrix (refer to 9.1 picture3)

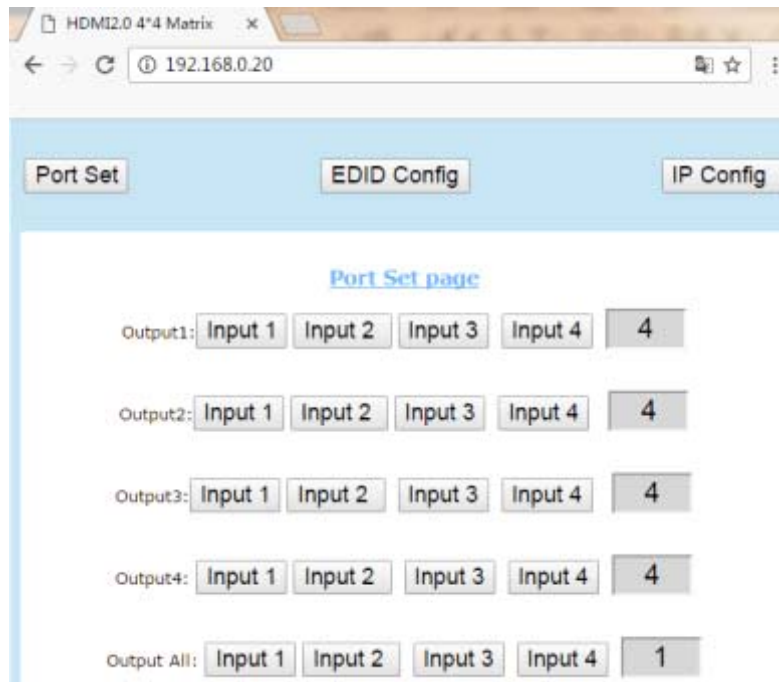1). Connect the HDMI Matrix and PC to the LAN.

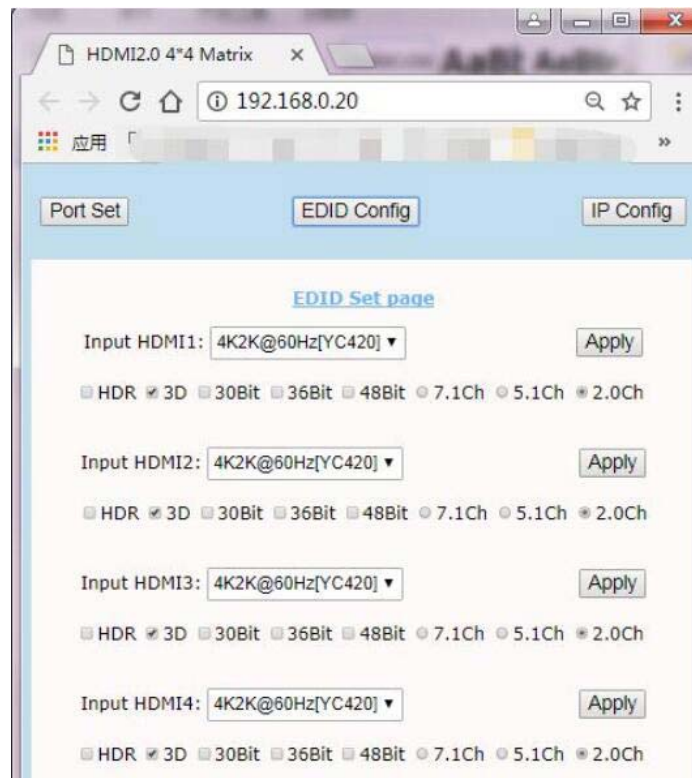2). Open the PC tool (included in the CD).

3). Search the IP address of HDMI Matrix, please refer to 9.1 picture 4 & picture 5.

4). Open the web browser and enter the IP address you searched, then you can set the function as below pictures:
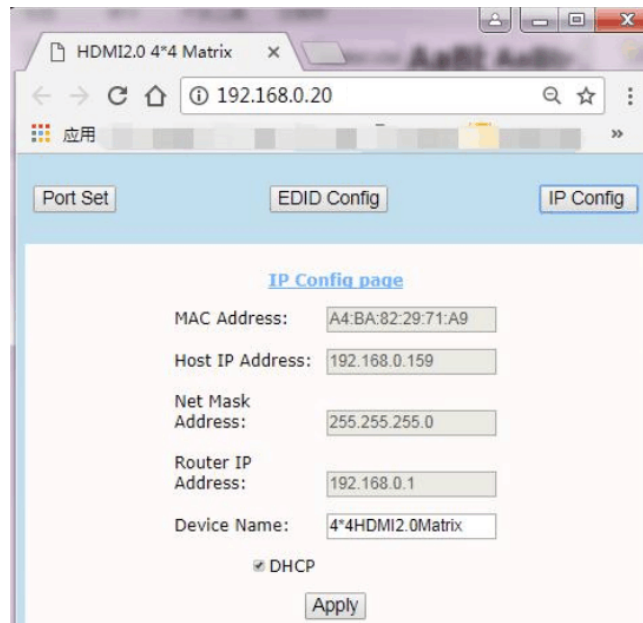

Picture 14: Port Setting Page

Picture 15: EDID Setting Page

Picture 16: IP Configuration Page
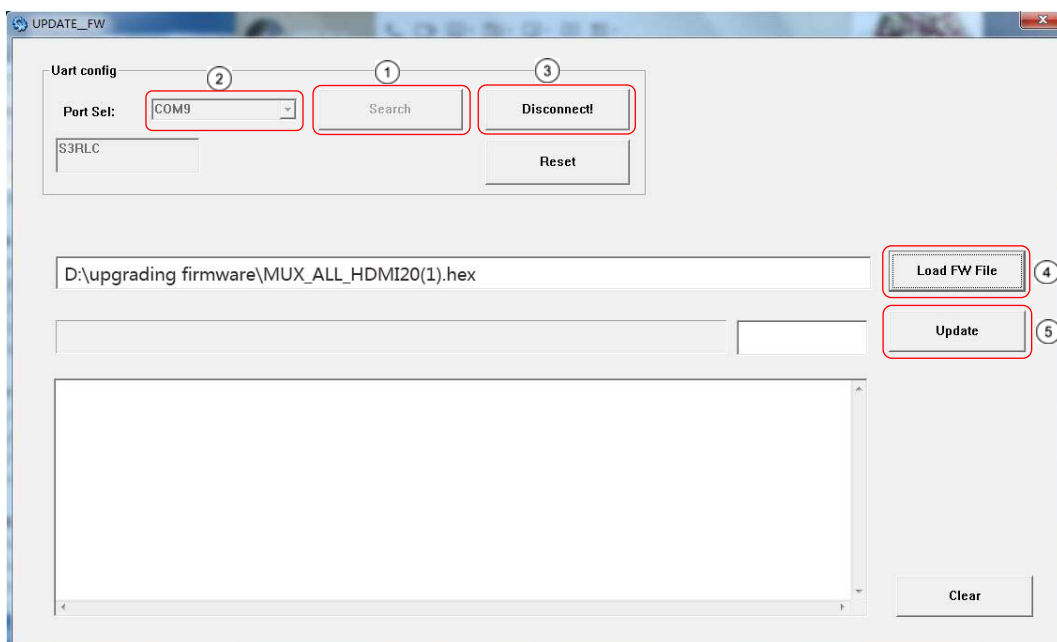
11. Online upgrading firmware.

1). Connect the HDMI Matrix with PC via USB or RS232 port.

2). Open the software to upgrade firmware (Included in the manual).

3). Click "Search" choose the port, then click "connect", then you can see "S3R(C)", click "Load FW File" to upload the firmware,click "update", the firmware can be upgraded in one minute.

Picture 17:Upgrading firmware

CUSTOMER CARE CENTRE

12 MONTH WARRANTY

1 **THIS PRODUCT IS WARRANTED FOR 12 MONTHS FROM THE DATE OF PURCHASE.**
Subject to the conditions of this warranty, the Customer Care Centre will perform necessary service on the product without charge for parts, or labour if, in the opinion of the manufacturer/ manufacturer's agent, the product is found to be faulty within the warranty period.

2 This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care. The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltage, accident, misuse, neglect, build-up of dirt or dust, abuse, mis-adjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.

3 If warranty service is required you should:
- Telephone the Customer Care Centre on 1300 662 946
- Provide a copy of your purchase receipt that shows retailer's identity and date of purchase.
- Send or bring the product to your Customer Care Centre.
  Please note that freight to and/or from your Customer Care Centre must be arranged by you.

4 The warranties hereby conferred do not extend to any costs associated with the delivery, handling, freighting or transportation of the product or any part thereof or replacement of and do not extend to any damage or loss occurring during, or associated with transit.

THIS WARRANTY CARD AND THE PURCHASE DOCKET
(OR SIMILAR PROOF OF PURCHASE)
SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

TROUBLE SHOOTING HELP LINE
1300 662 946

Customer Care Centre
562 Spencer Street, West Melbourne
VICTORIA 3003

Pro.2
Providing AV Solutions

This advice does not limit, override or later your guaranteed rights under the Australian Consumer Law, including remedies for any failure of the Consumer Guarantees, which may include repair or replacement or it a Major Failure (as defined under the Australian Consumer Law) a replacement or refund. These guaranteed rights cannot be varied by Pro.2 or retailers of its products and have no set time limit.