MM2 Series

MM2-0808/MM2-1616/ MM2-3232

8x8, 16x16, 32x32
Multi Format Matrix Switcher

User Manual

Content

Introduction

HD Modular Matrix system is a flexible integrated solution for signal transmission, switching and distribution in meeting room. Modular design allow Matrix to be customized for each application from 4*4 to 32*32. Its high bandwidth backplane ensures full compatibility with the highest resolution signals currently in use, while also providing a future-ready upgrade path for new formats with higher resolutions. I/O cards are available for HDBaseT/Fiber/HDMI/DVI/3G SDI/VGA/YPbPr/CVBS. They are HDCP compliant and EDID manageable. Also, they offer flexible RS232 control signal routing to inputs and outputs for remote device control and power up remote extender. For reliability running, matrix card-cage support redundant power supply and all cards hot swap. Matrix card-cage provide preset, recall and Key, RS232 and TCP/IP control function.

Package Contents

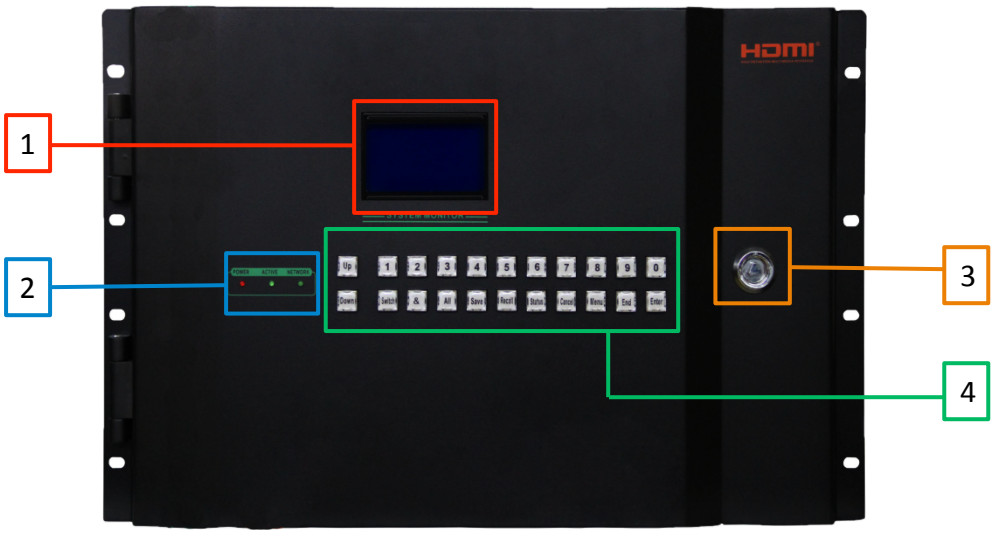
- 1×Matrix
- 1×Power Cable
- 1×RS232 Cable
- 1×FW update cables
- 1×Front door key
- 1×CD(User manual)

Features

- Card-cage sizes are 8*8, 16*16, 32*32;
- Wide selection of input and output cards such as HDMI/DVI/3G-SDI/VGA/ YPBPR/CVBS/HDBaseT and Fiber Optic;
- Video, Power and Bidirectional RS232 control pass through matrix and send to HDBaseT extender over a Catx cable;
- Extends 1080p/60 Deep Color and 1920 x 1200 signals up to 330 feet(100 meters) over Catx and up to 4921 feet(1500 meters) over fiber optic;
- HDCP compliant;
- EDID management support EDID route among output, input and system;
- Support 16 EDID preset and update in system;
- Support 10 preset and recall;
- RS232 TCP/IP and Key control;
- Status real time display in LCD;
- Redundant power supply and all cards hot swap.

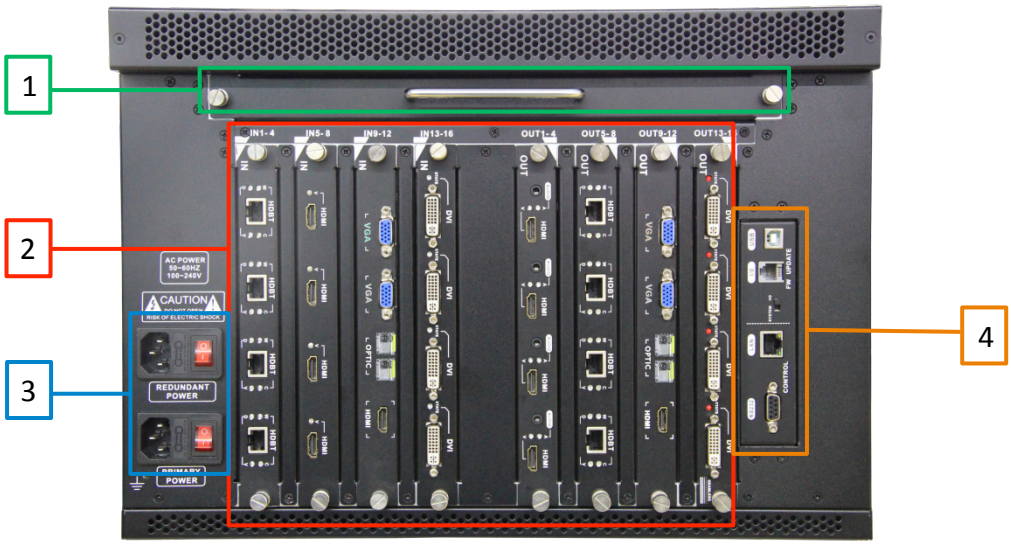
Panel Description

1. *Front Panel*



1. LCD Display;
2. Power Led;
   Active Led;
   Network Led
3. Panel Lock;
4. Keyboard.

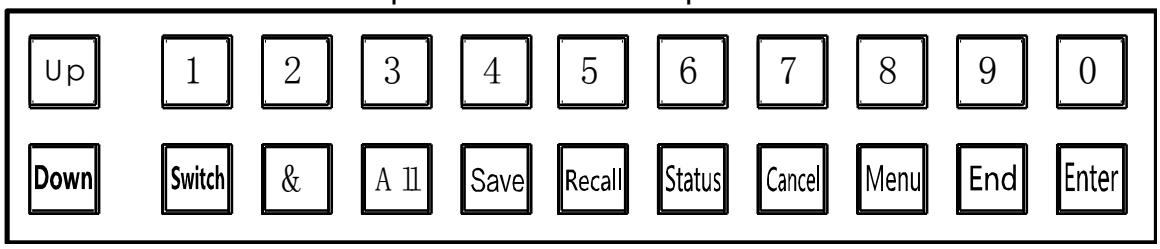
2. *Rear Panel*



1. Fan Module;
2. Cardcage;
3. Power;
4. RS232, LAN, FW update USB.

Keyboard Description

As image below, furthermore 0-9 of 10 key caps are designed for disassembly, based on the need to replace the base map.



0 ..... 9 I/O channel selection keys, used to set the I/O channel, call the status or save the selected number

Up Move the highlighted area UP to select the option

Down Move the highlighted area Down to select the option

Switch Signal toggle selection key

All All connected

Eg1: "7→All " means tie input 7 to all output ports

Save Save current status of I/O connection

Eg1: "Save→2", save current I/O status to NO.2 memory block

Recall The recall key will restore a saved memory preset.

Example: Recall→2 restore the I/O status from the NO.2 memory preset

Status The status shown the matchup of inputs to outputs

Cancel The channel key, return the Matrix standby mode

Eg1:"1→Switch→2→End→Cancel"' clear the input order and user can type the new one you need

Menu Menu function keys used to enter the menu to setup

End The end key, finish a selection order

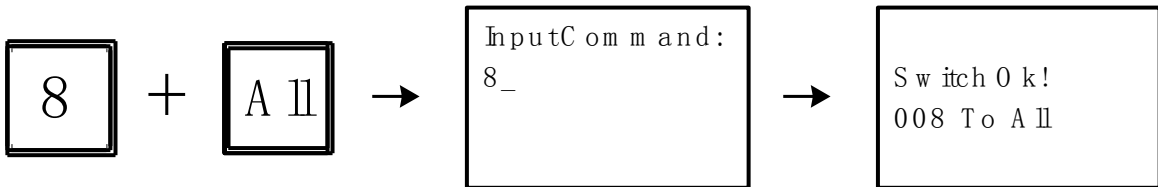
Enter Command execution key, confirm switching selection and execute the switching action

Signal Switching Example

1. Switch signal

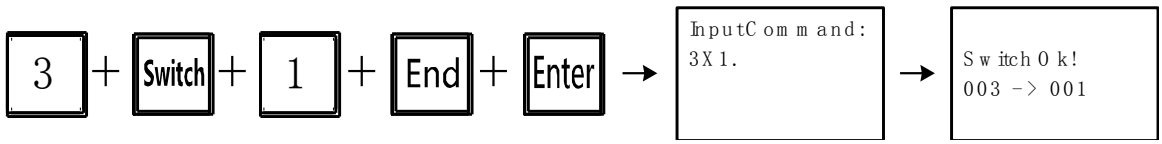
1. Switch signal from one input to all output ports

Press <Input Port NO.>+<All> in the front panel, as image below, switching signal from 8 to all output ports. Press <8>+<All>, it will be done. If success, LCD monitor will display "Switch OK! 008 To All".



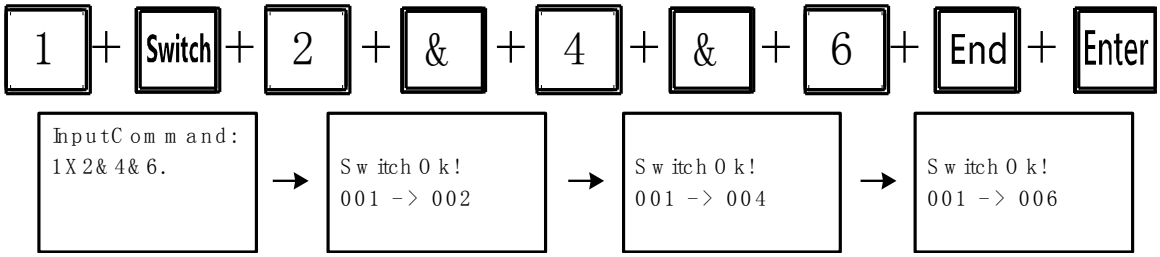
2. Switch one input to one output

Press <3>+<Switch>+<1>+<End>+<Enter> in the front panel, as image below, switch signal from input NO.3 to output NO.1.



3. Switch one input to several outputs

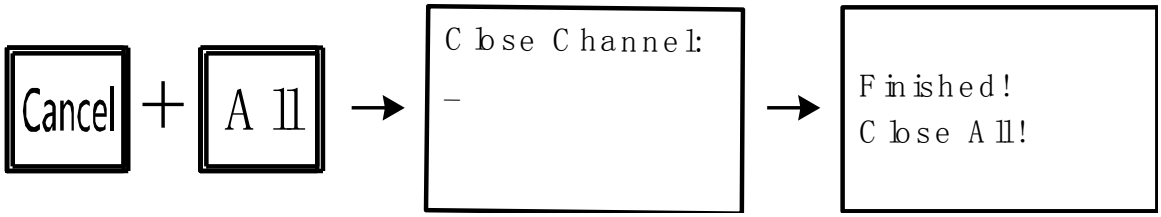
Press <1> + <Switch> + <2> + <&>+ <4> + <&>+ <6> + <End> + <Enter> in the front panel, as image below, switch signal from input NO.1 to output NO.2&NO.4&NO.6.



2. Mute output port

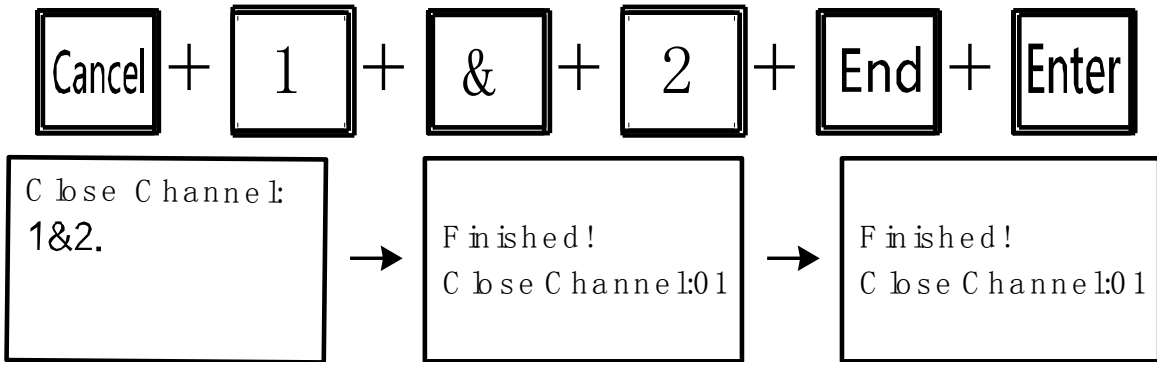
1. Mute all output ports

Press <Cancel>+<All> in the front panel, as image below, it will close all output port.



2. Mute several output ports

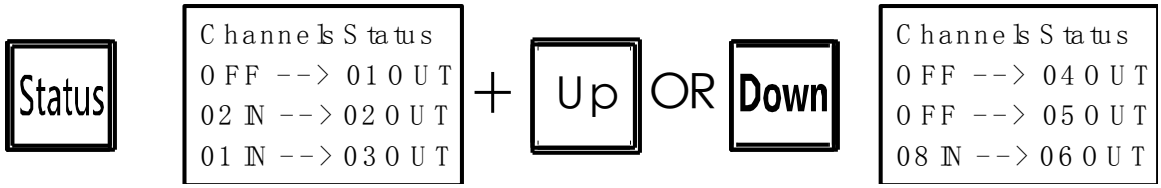
Press <Cancel>+<1>+<&>+<2>+<End>+<Enter> in the front panel, as image below, it will close output NO.1&NO.2.



3. Check the status of output

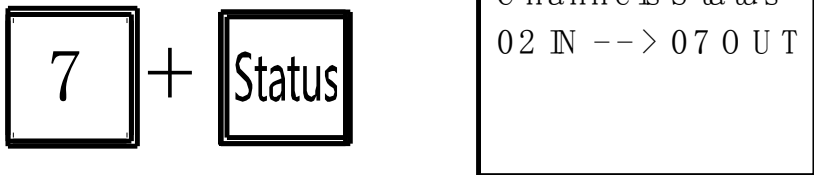
1. Check all output status

Press <Status> in the front panel, as image below, the LCD monitor will display the status of the output ports.



2. Check one output port status

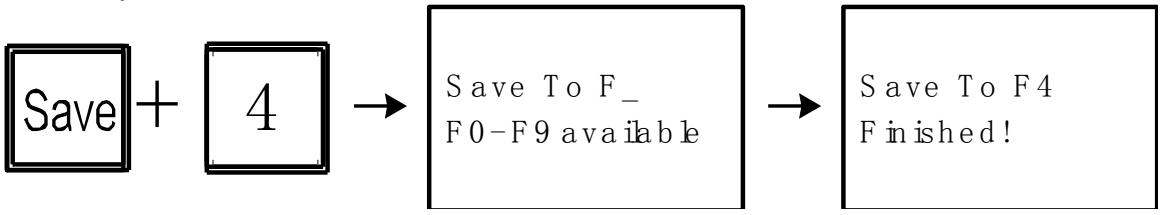
Press <7>+<Status> in the front panel, as image below, it will display the status of output port 7 in the LED monitor.



4. Save and Recall

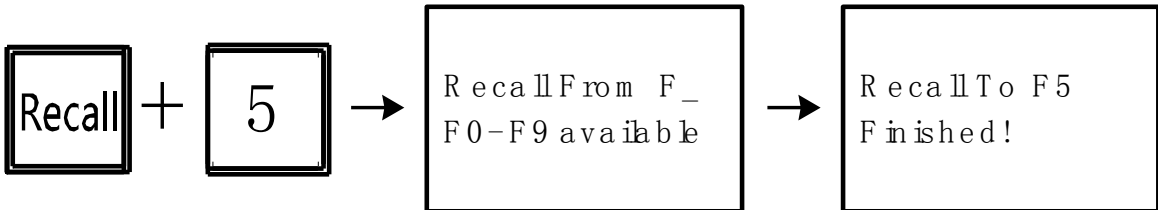
1. Save current ports status

Press <Save>+<4> in the front panel, as image below, Save the I/O configuration into a memory preset, save all I/O status into NO.4 memory cell. "0-9" ten presets in all.



2. Recall the stored status

Press <Recall>+<5> in the front panel, as image below, recall the I/O status from the NO.5 memory preset.



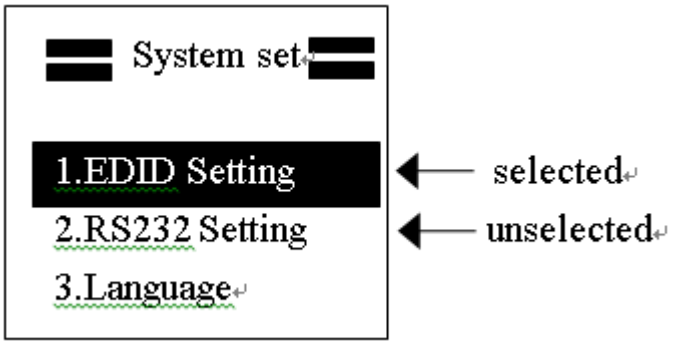
Advanced Setting

1. Function Menu

Main Menu	Second-class Menu	Third-class Menu
1. EDID Setting	1. EDID Update	1. External EDID
		2. Default EDID
		3. Back
	2. EDID Manage	1. Save EDID
		2. Delete EDID
		3. Back
	3. EDID Info	/
	4. Back	/
2. RS232 Setting Note:Port RS232 is for the HDBaseT card RS232 pass through setting, RX on/off is data feedback control	1. Main Board	1. Baud Rate
		2. Data Bits
		3. Stop bit
		4. Parity
		5. Back
	2. In Port1 … 17. In Port16	1. Baud Rate
		2. Data Bits
		3. Stop bit
		4. Parity
		5. Rx on/off
		6. Back
	18. Out Port1 … 33. Out Port16	1. Baud Rate
		2. Data Bits
		3. Stop bit
		4. Parity
		5. Rx on/off
		6. Back
	34. Back	/
3. Seamless Set	1. Resolution Set	1. 1920*1080p
		2. 1280*720p
		3. 1440*900
		4. 1366*768
		5. 1024*768
		6. Back
	2. DemoMode Set	/
	3. Back	/
4. Version Info	1. Main Board	FO-X. X. X
	2. Input Card	INC1-X. X. X … INC(16/4)-X. X. X
	3. Output Card	OUTC1-X. X. X … OUTC(16/4)-X. X. X
	4. In RS232 Card	INP01-X. X. X … INP16-X. X. X
	5. Out RS232 Card	OUTP1-X. X. X … OUTP16-X. X. X
	6. Back	/

Main Menu	Second-class Menu	Third-class Menu
5. Languague	1. English	/
	2. Back	
6. Beep Setting	1. Turn On	/
	2. Turn Off	
	3. Back	
7. Keypad Light	1. Turn On	/
	2. Turn Off	
	3. Back	
8. LCD Backlight	Always on	/
	20 Min	
	14 Min	
	10 Min	
	5 Min	
	Back	
9. System Reset	/	
10. Back	/	

Enter the menu, use <Up> and <Down> to select the corresponding options, the selected option will highlight, then press <Enter>, as image below.

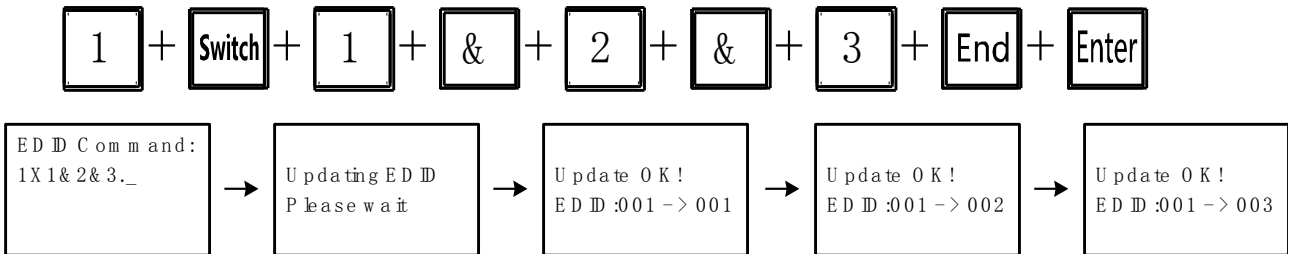


2. EDID Management

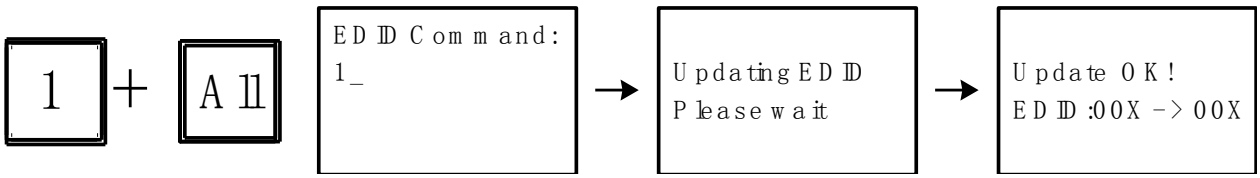
1. Update EDID

Press <Menu>, enter the menu management, choose "1.EDID Setting"→ "1.EDIDUpdate" → "1.External EDID" means route EDID of sink device connecting output port to source device connection input port.

For example, update EDID from output <1> to input <1>, <2>, <3>, please press keys as image below.



But, if you want to update EDID to all, please operate as image below.

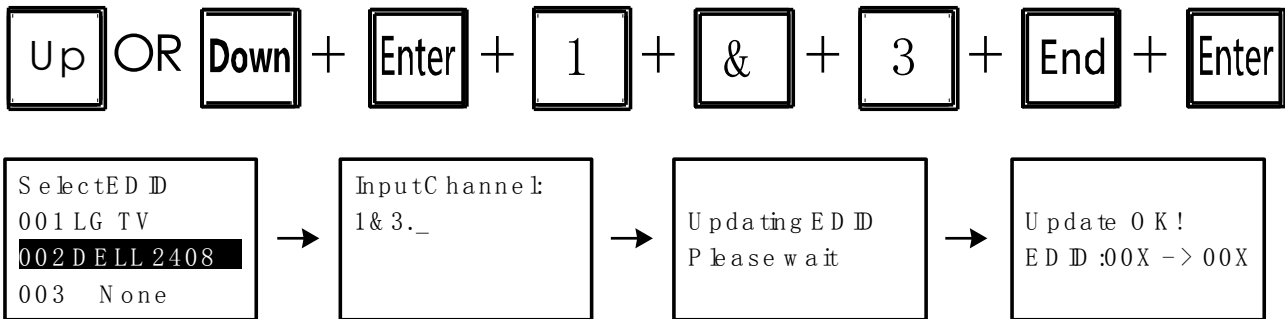


2. Update from stored EDID

Matrix System can store 16 groups of EDID data, the data can be recalled at any time.

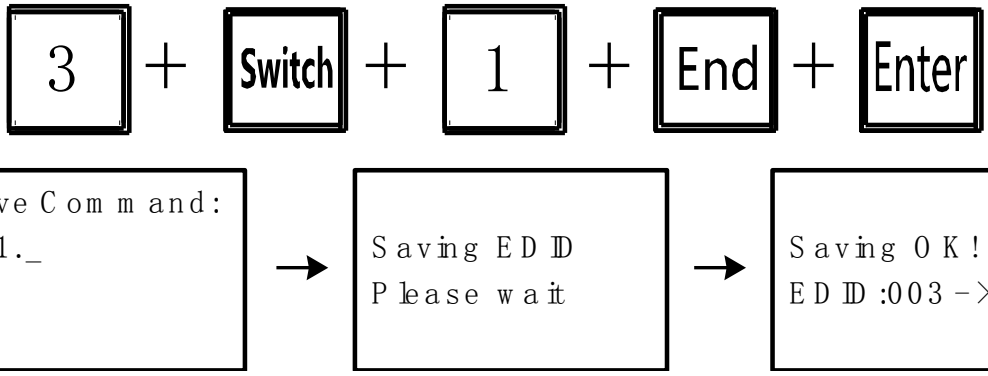
Press <Menu>, select "1.EDID Setting" → "1.EDID Update" → "2.Default EDID" use <Up> or <Down> to select the appropriate EDID.

Update EDID to input port <1> and <3>, as image below.



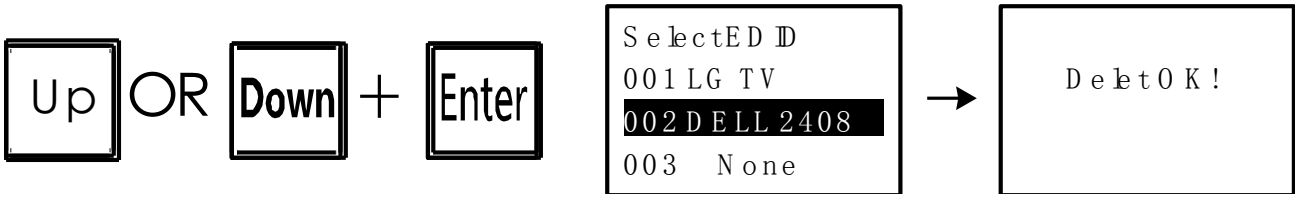
3. Save EDID from sink device

Press<Menu>, choose "1.EDID Setting" → "2.EDID Manage" → "1.Save EDID", type in <output port> + <memory cell>, save output port <3>EDID into memory <1>, please do as follows<3> + <Switch> + <1> + <End> + <Enter>, as image below.



4. Delete EDID

Delete EDID information which you have stored, please operate as follows: press <Menu> choose "1.EDID Setting" → "2.EDID Manage" → "2.Delete EDID", as image below.

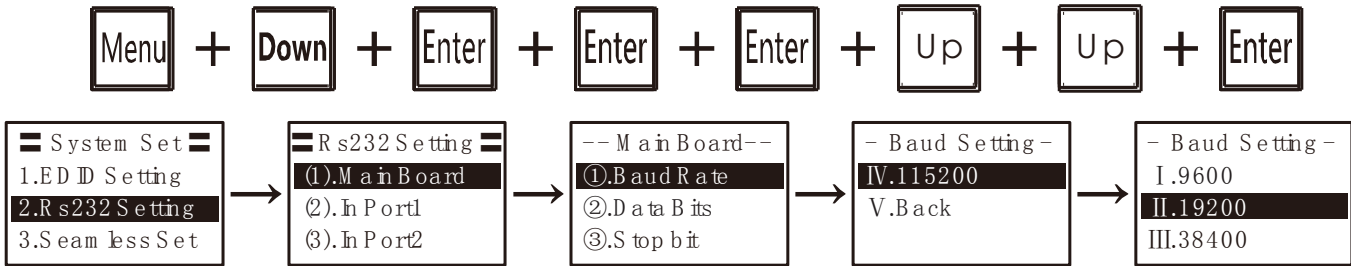


5. Check the stored EDID information

Check EDID information you stored, please operate as follows press <Menu> choose "1.EDID Setting" → "2.EDID Info"

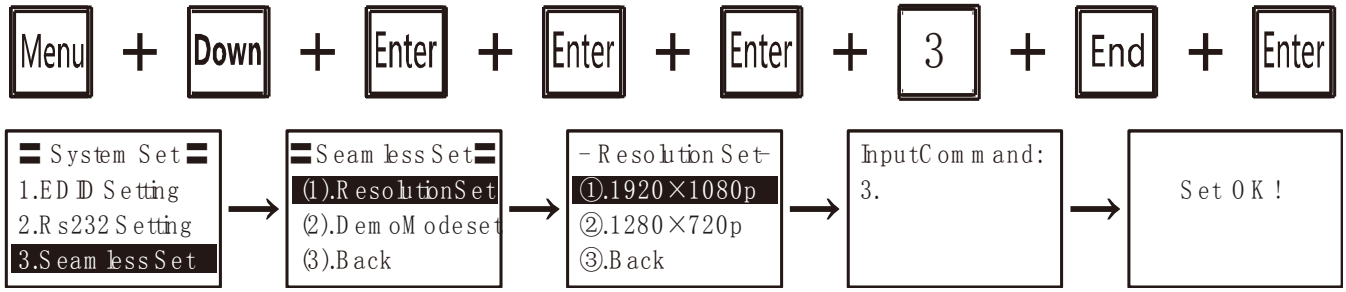
3. RS232 Setup

RS232 parameters include Baud Rate, Data Bits, Stop bit, Parity, and you can change the parameters, press <Menu> choose "RS232 Setting", use <Up> or <Down> to select, then press <Enter> to enter into change parameters. If the parameters set OK, please press <Enter> to confirm.



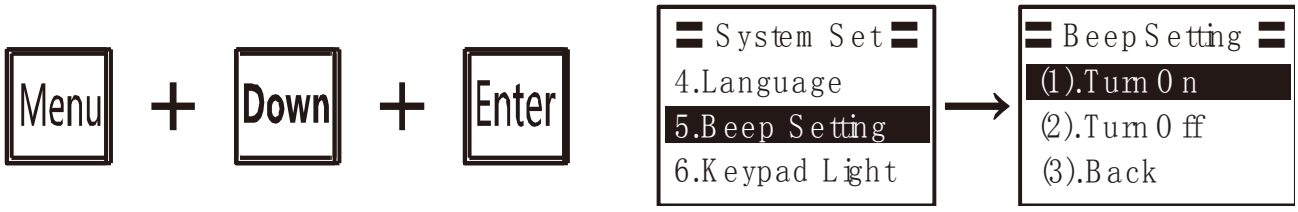
4. Seamless Switch Setup

Seamless switching card is a scaler output card. Now, DVI is available, press <Menu> choose "3.Seamless Set" → "1.Resolution Set", use <Up> or <Down> to select, then press <Enter> to change parameters. Note that you need to input slot number rather than port number. 4 port at a card will output same resolution.



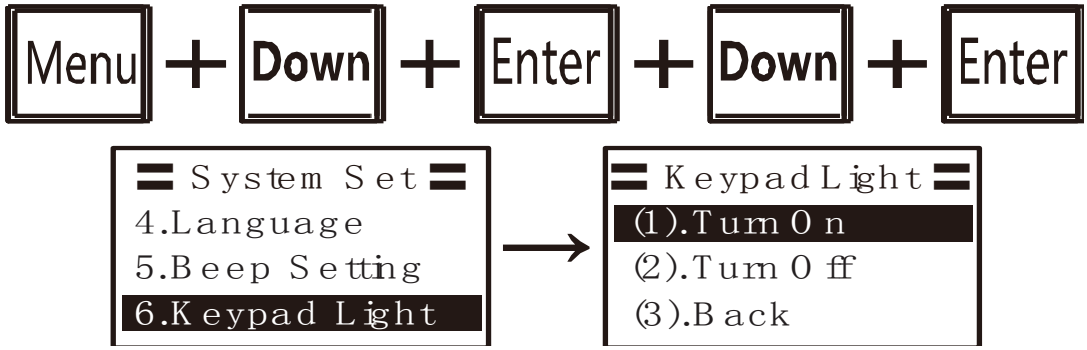
5. Beep Setup

Press <Menu>, choose "4.Beep Setting", use <Up> or <Down> to select turn on or turn off the beep.



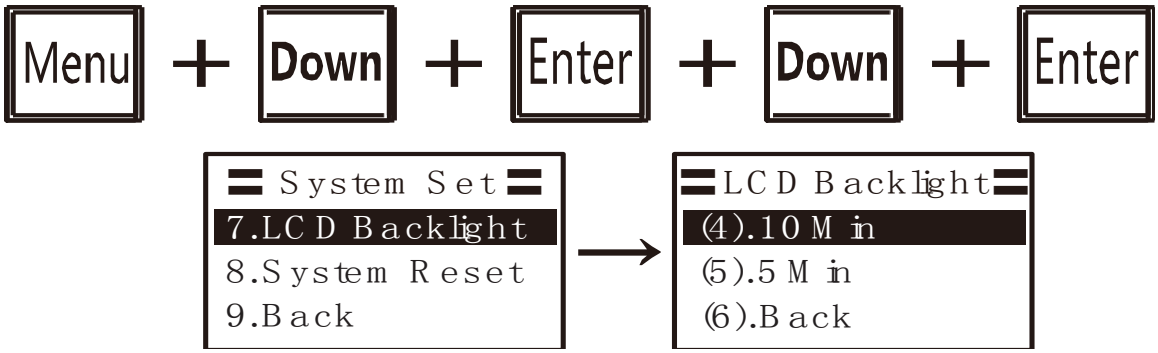
6. Keypad Light Setup

Press <Menu>, choose "5.Keypad Light', use <Up> or <Down> to select turn on or turn off the Keypad light.



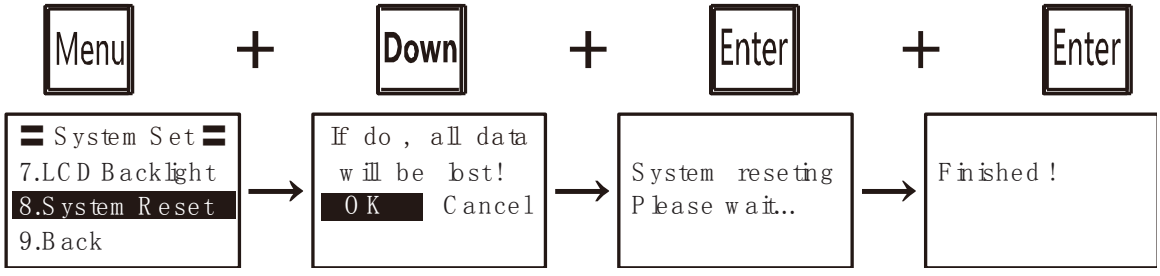
7. LCD Backlight Setup

Any operation in the keypad, the backlight will turn on. Press <Menu>, choose "6.LCD Backlight", use <Up> or <Down> to select turn on or turn off the light. Always on indicate the backlight won't turn off. "x Min" indicate if not operate backlight will turn off automatically after x min.



8. Reset

When you are saving EDID or switching EDID, but LCD display indicates that "system error". Please use this function-RESET. Note Reset is requirement when finish FW update, otherwise EDID function will be failed.

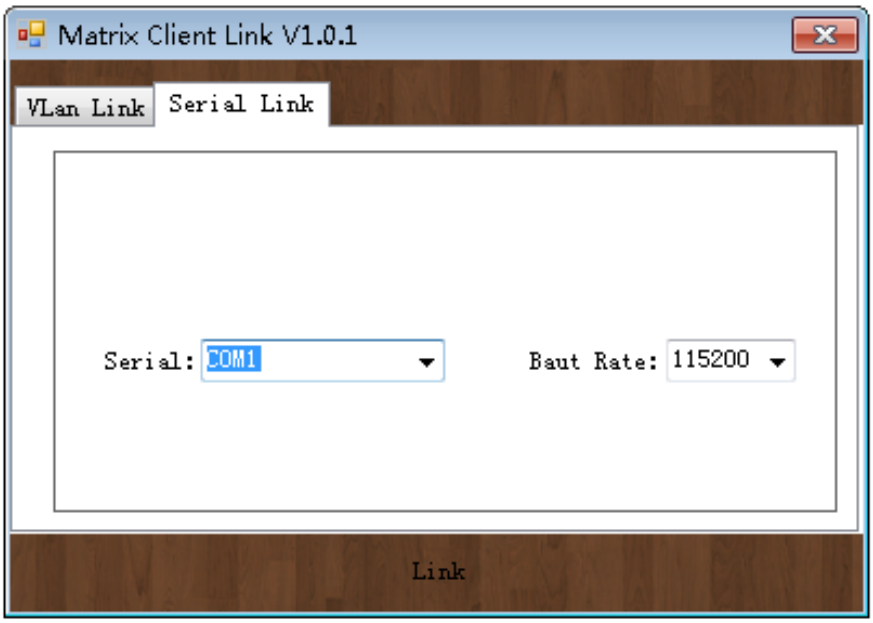


PC Control Software

"Matrix Series" is PC control software for HD Modular Matrix Switcher, it support RS232 and LAN control.

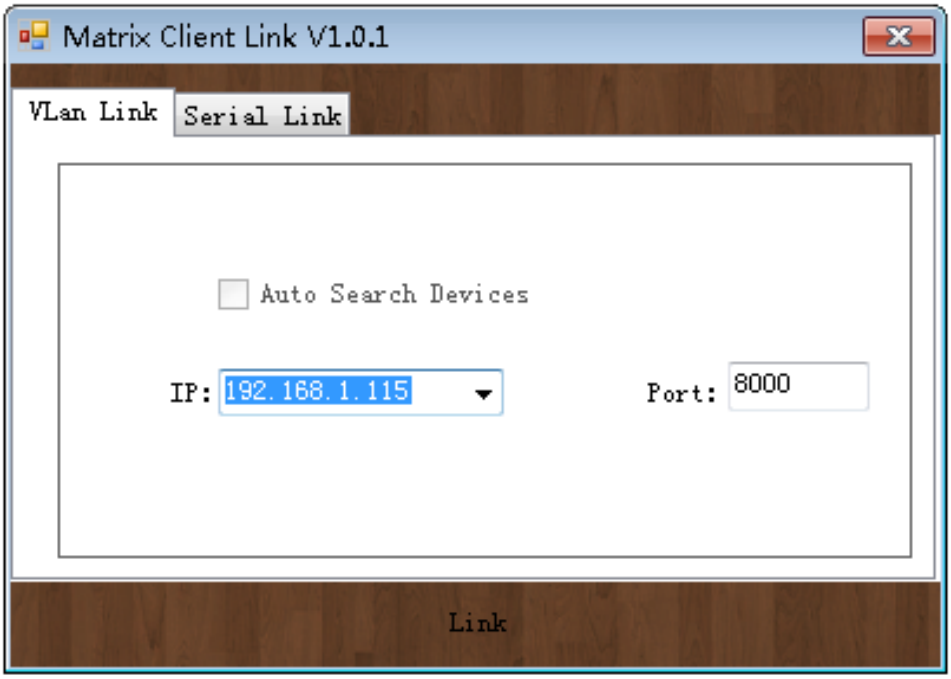
1. RS232 Setting

Set matrix main RS232 Baud Rate to 115200, Data to 8, Stop to 1, Parity to None by the front panel. Connect Matrix to PC by RS232 cable and run Matrix Control Software. Set Serial Baud Rate to 115200 and click Link as below Figure.



2. LAN Control Setting

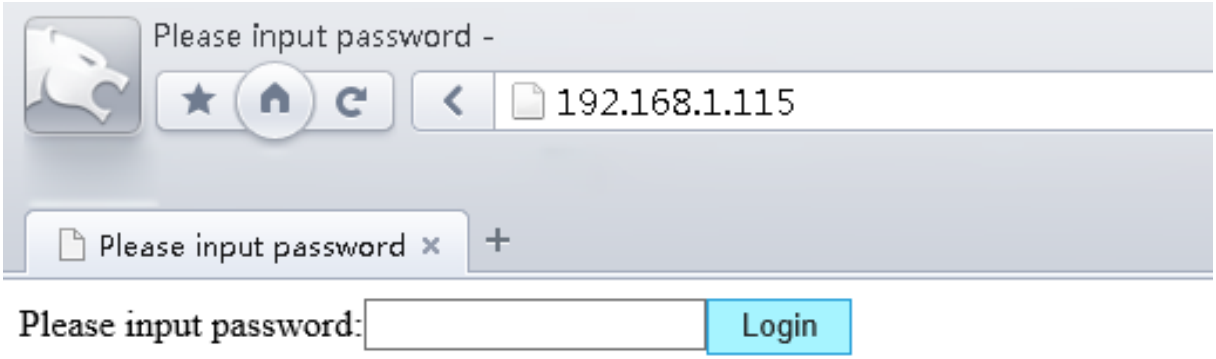
Connect Matrix to PC. Set PC IP address to 192.168.1.xxx. Run Matrix Control software and select Lan link, select IP address and click link.
Note: Initial IP address of Matrix is 192.168.1.114 or 192.168.1.115



3.How to modify Matrix IP address

There is a LAN convert to RS232 model inside matrix. The name of model is C2000. C2000 supports configure IP by webserver.

1. Please login 192.168.1.115 and there is no password.



2. C2000 Configuration system, click "Config C2000 Plus".

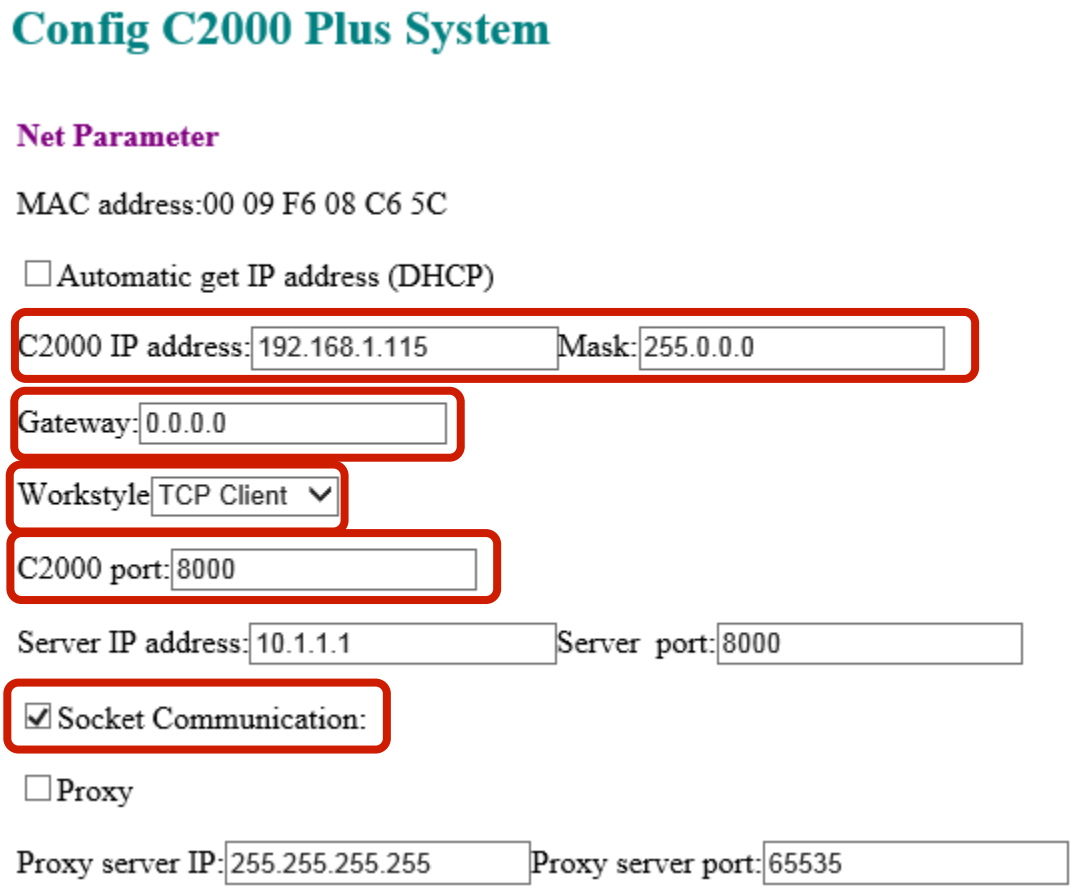
3. Take care of the red area as picture below:

a. IP Address Setting, Mask, and Gateway could be change as you need;

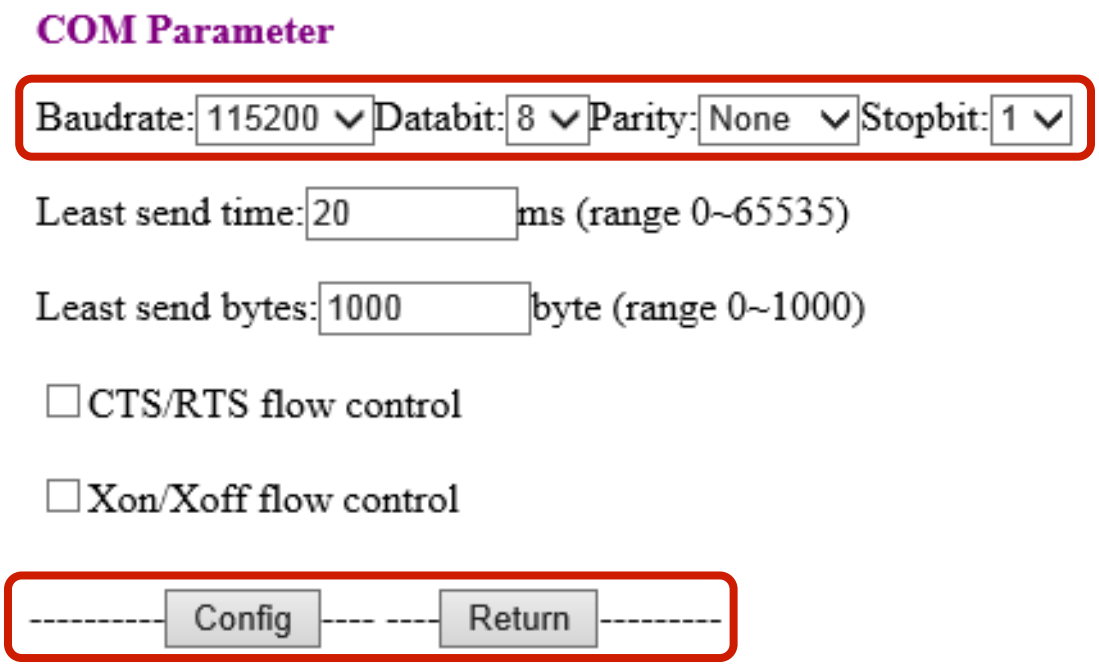
b. Workstyle must be TCP Client and C2000 Port is 8000;

c. Make sure Click Socket Communication;

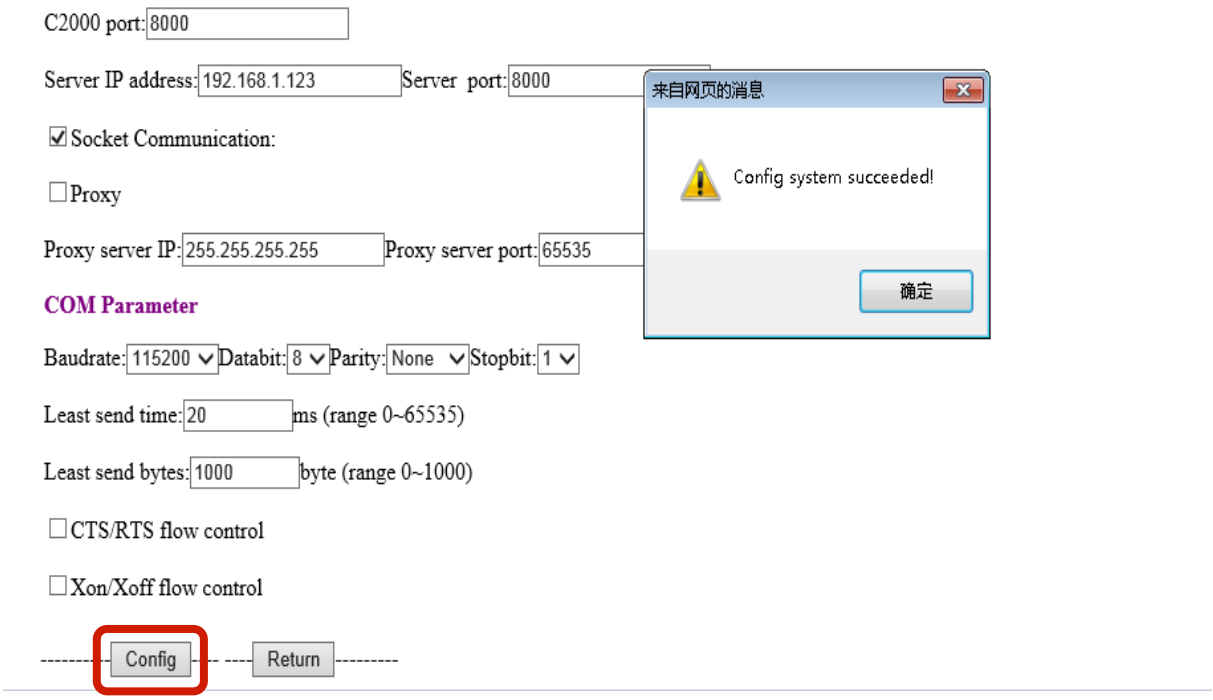
d. Just keep Other selections it as default.



4. Make sure Com Parameter is the same as Matrix Main RS232 Setting. Otherwise it will fail to control by LAN for C2000 is convert LAN to RS232 and transfer to matrix.



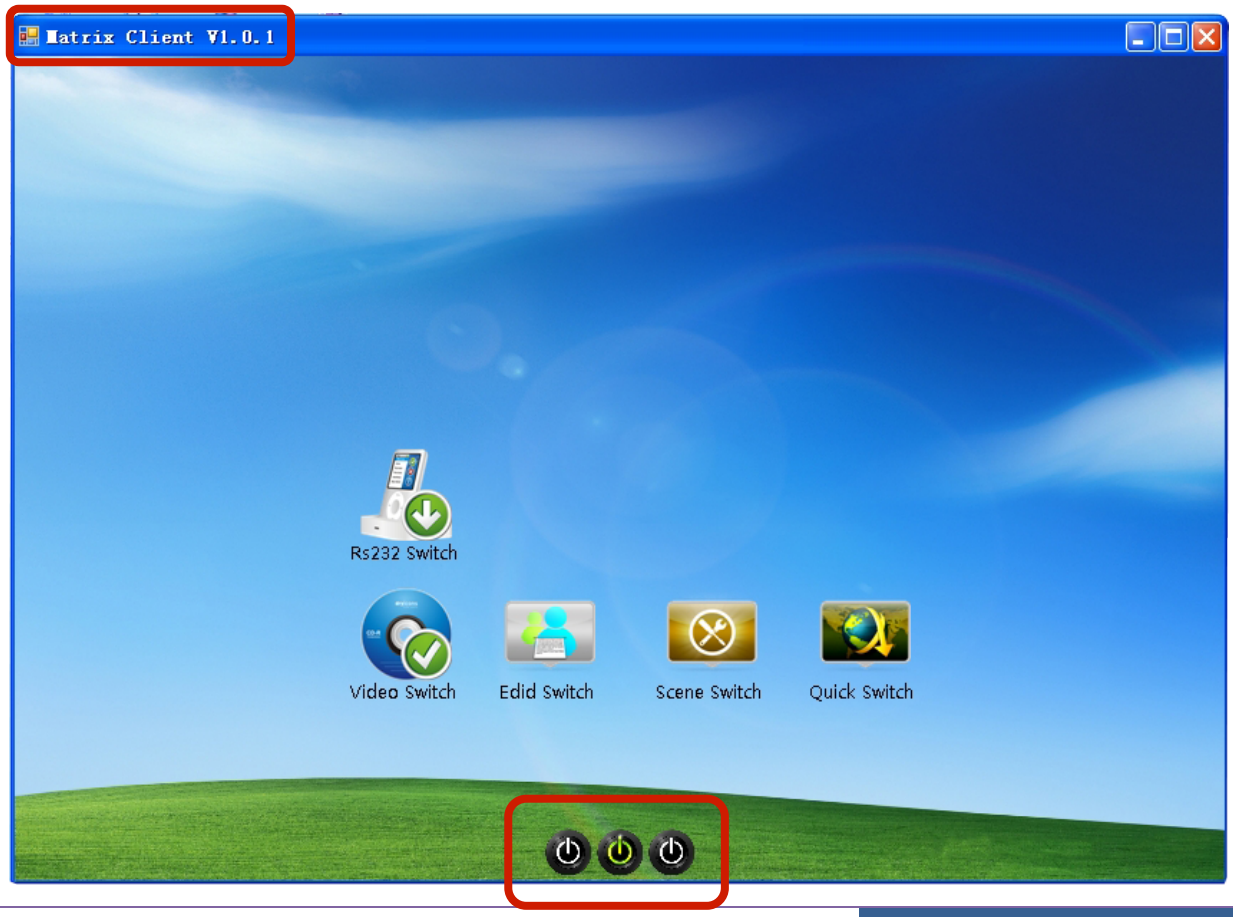
5. Click Config to save the change.



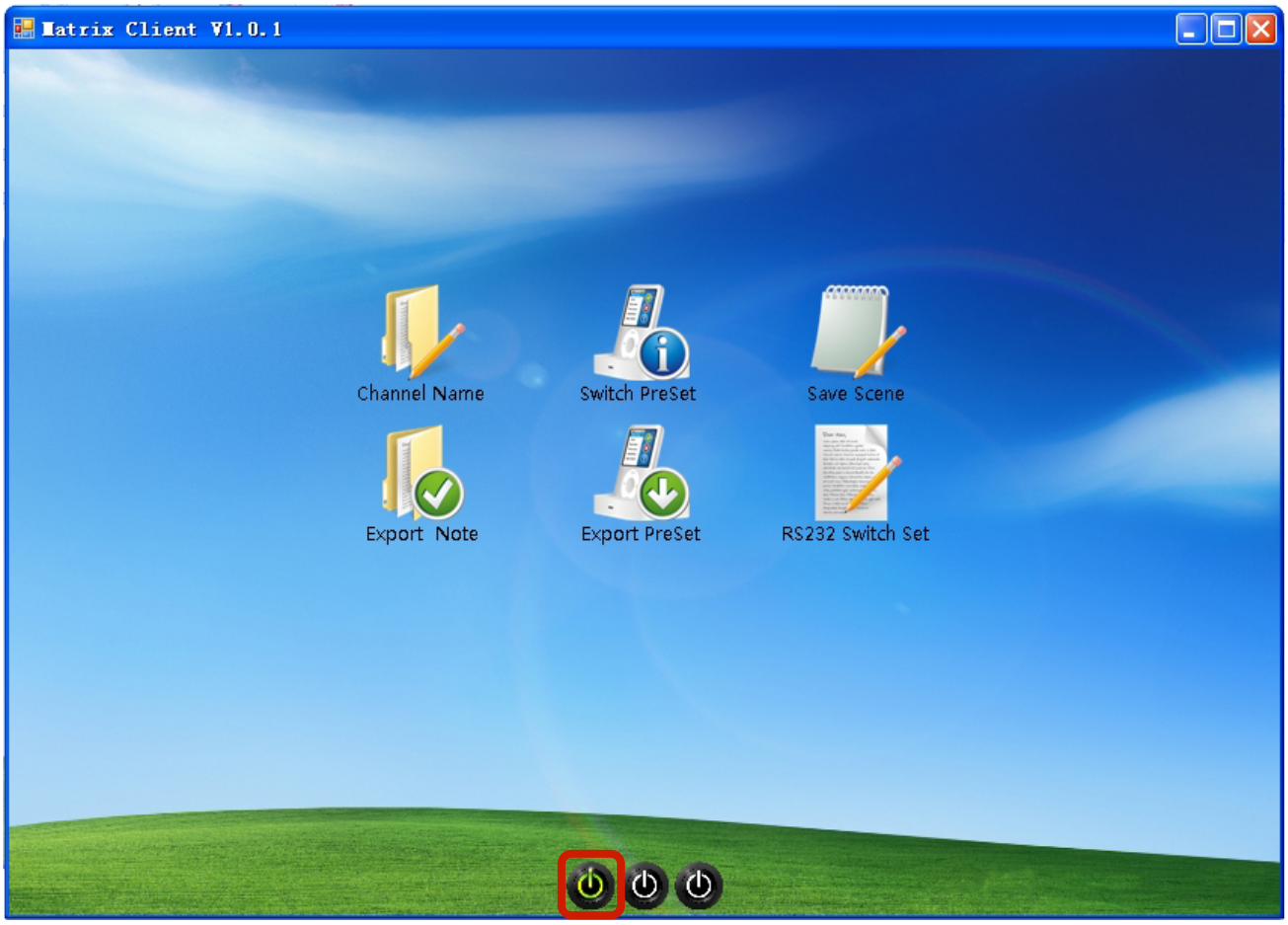
6. Do not forget to Apply Configuration when finish configuration.

4. Software Introduction

Base on the steps, you will succeed to link matrix by RS232 or LAN, you could see the home page as below:
Software version is on the top left corner, you can change the background by clicking the right button, and the three dots on the bottom separately direct to 'User Configure Page', 'Function Page', 'System Configure Page' from left to right.



5. User Configure Page



1. Home Page Introduction

Page of defining device name of input and output

Page of switching preset for quick switch function

Page of switching scene save for scene recall function

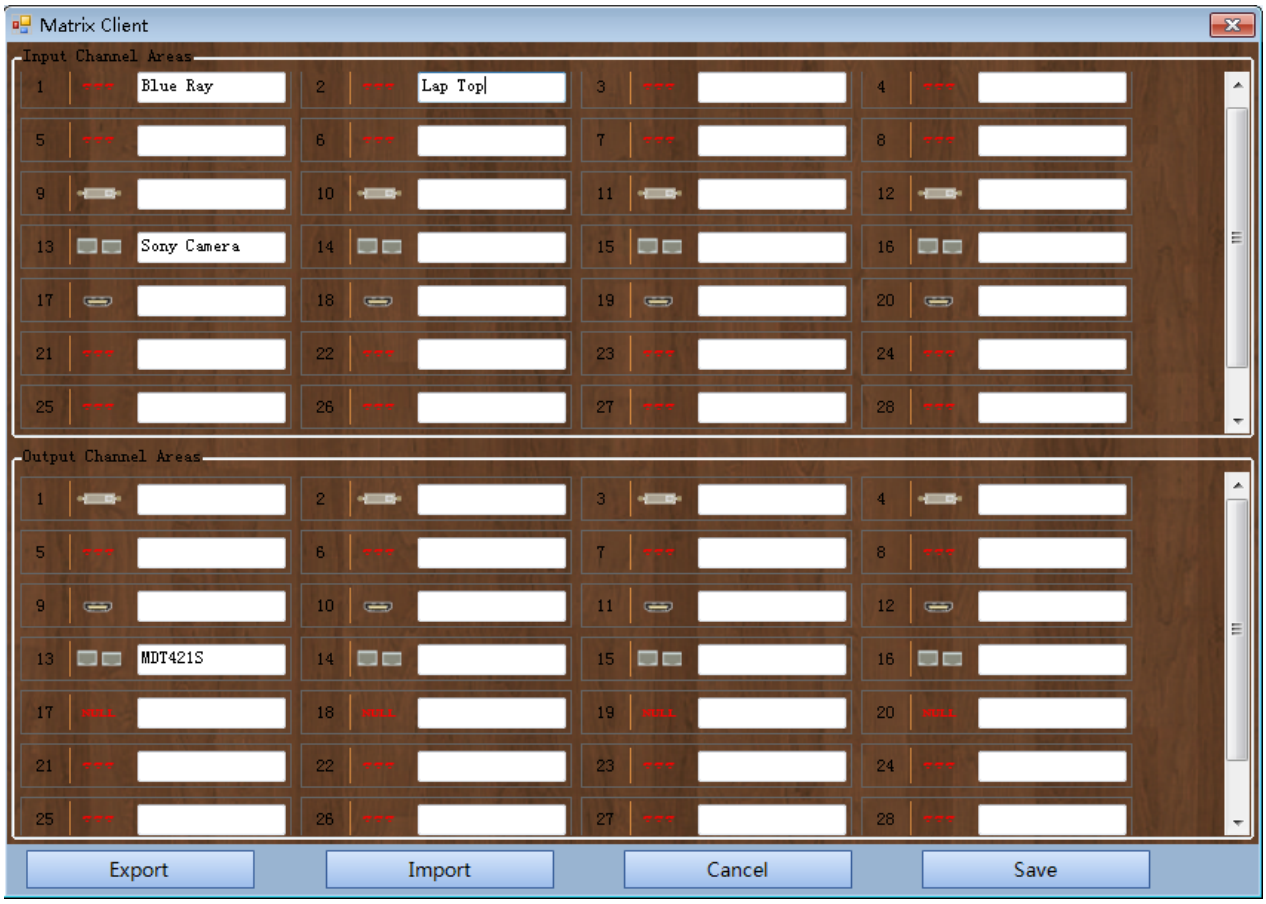
Export current channel name to a DB file

Export current preset to a DB file

Page of setting control command for HDBaseT RS232 control pass through

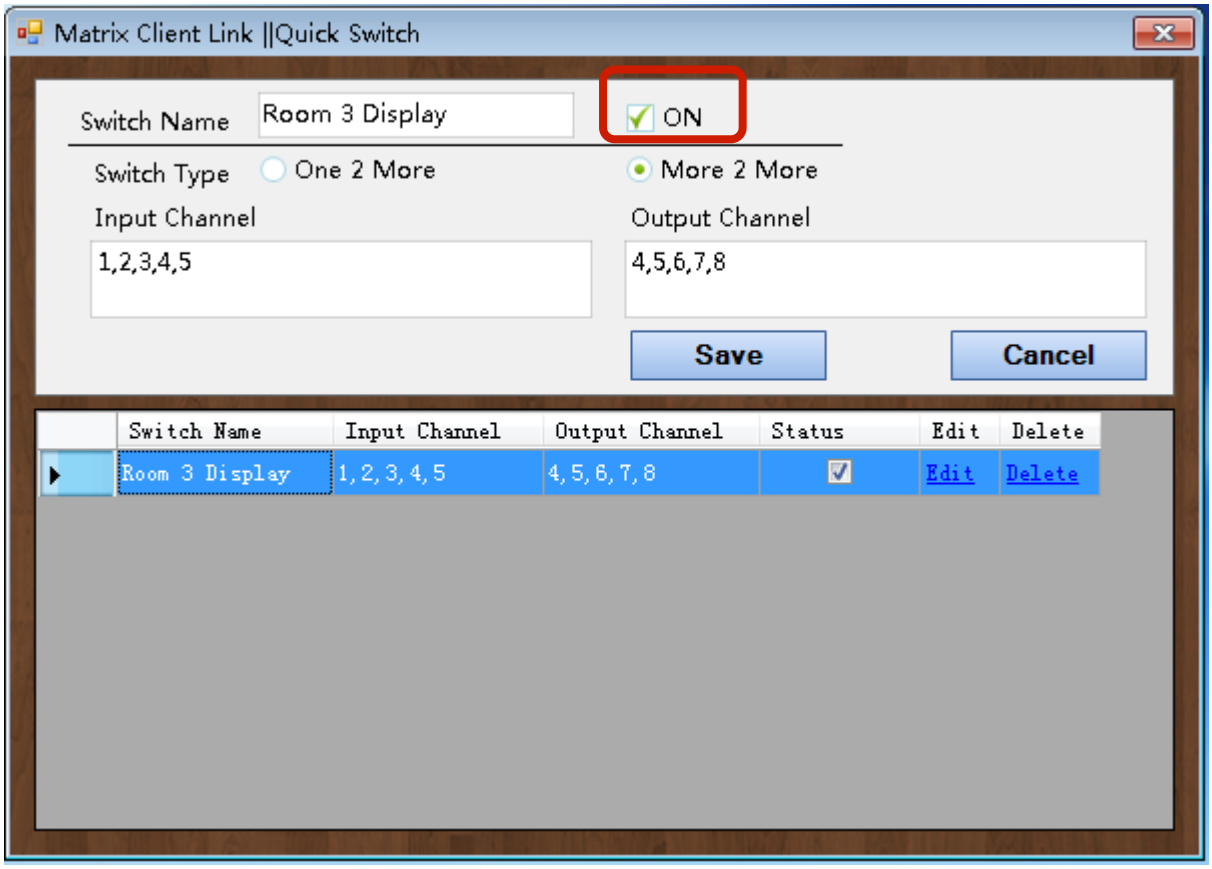
2. Channel Name

You can define the input and output in this page.



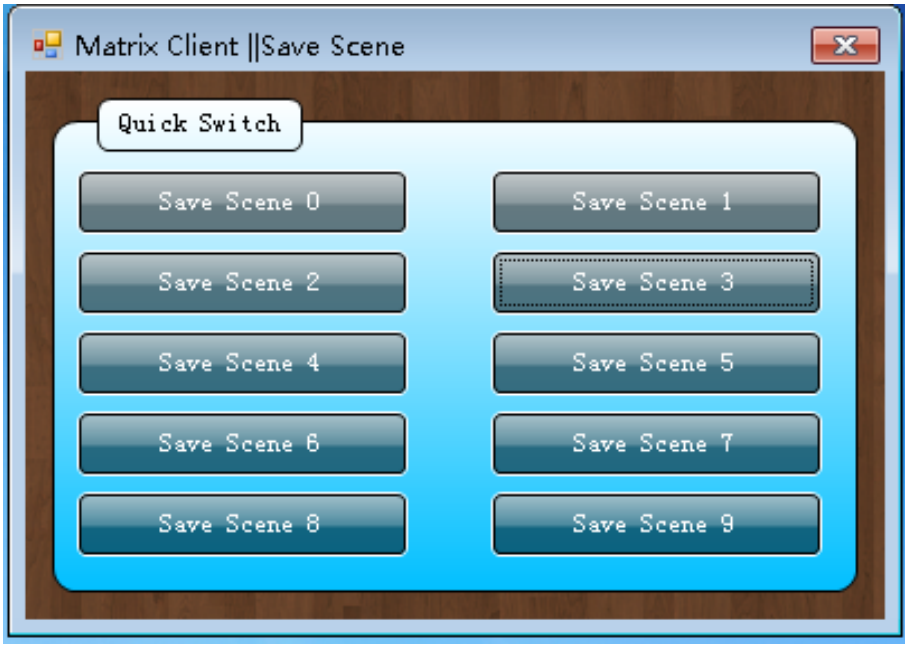
3. Switch Preset

You can define switching for quick switch function.



4. Save Scene

You can store the current display status for scene recall function.



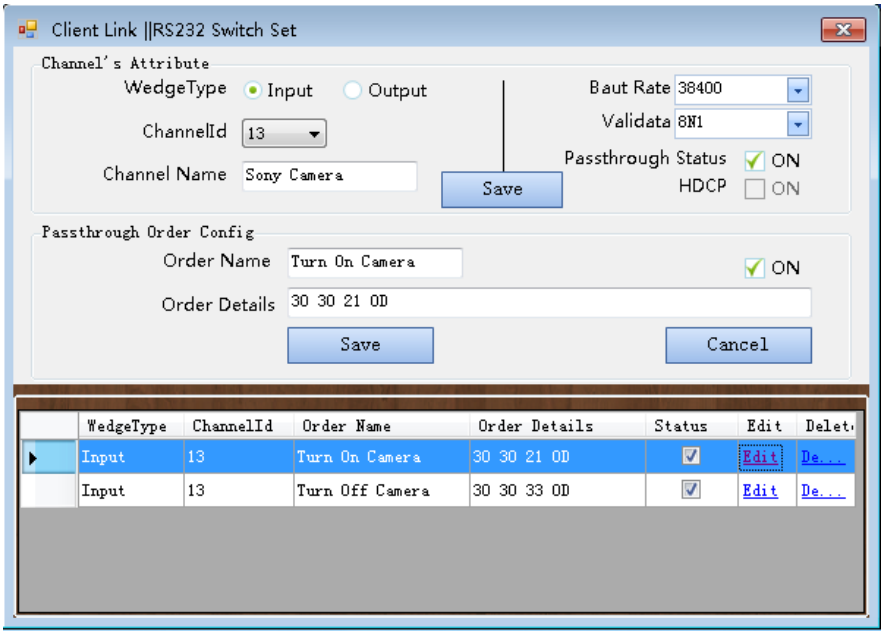
5. RS232 Switch Set

a. Set HDBaseT input channel 13, RS232 Baud Rate:38400, Data:8, Parity: None, Stop:1, RX:ON(Device RS232 Feedback).

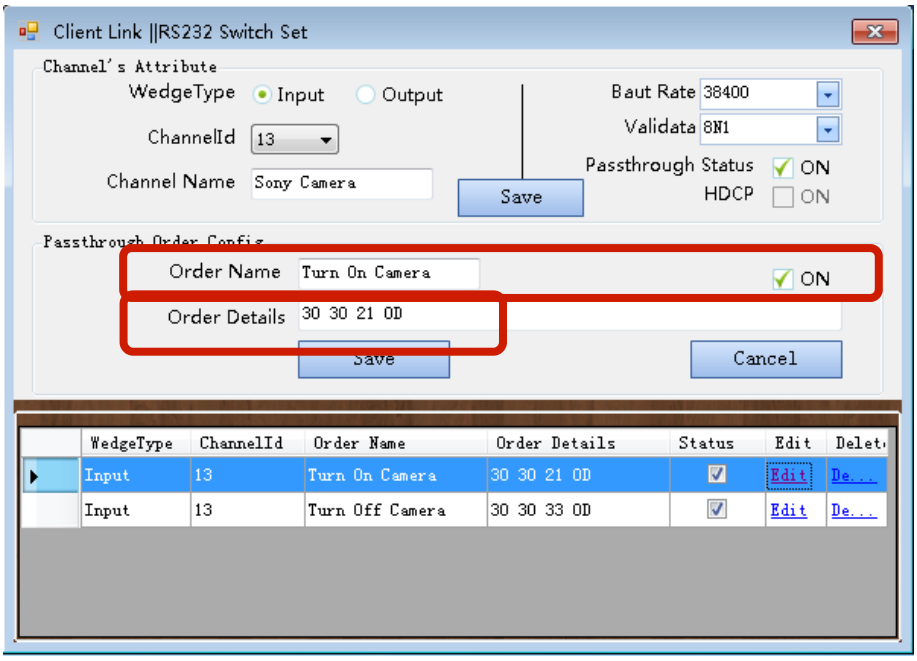
b. Baud Rate Setup Command ">B384008N1ONIN13<cr>" will be sent out to matrix when click save button.

c. Define HDBaseT input port 13 RS232 device is a Sony Camera and the turn on and turn off command.

d. Hex code of turn on:3030210D, Hex code of turn off:3030220D.



e. Sony Camera and the turn on command has been created at the RS232 switching function. HEX code:30 30 21 0D will be send to matrix when you operate at the RS232 switching.



6. Function Page

1. Home Page Introduction

Page of HDBaseT RS232 pass through function

Page of video switching function

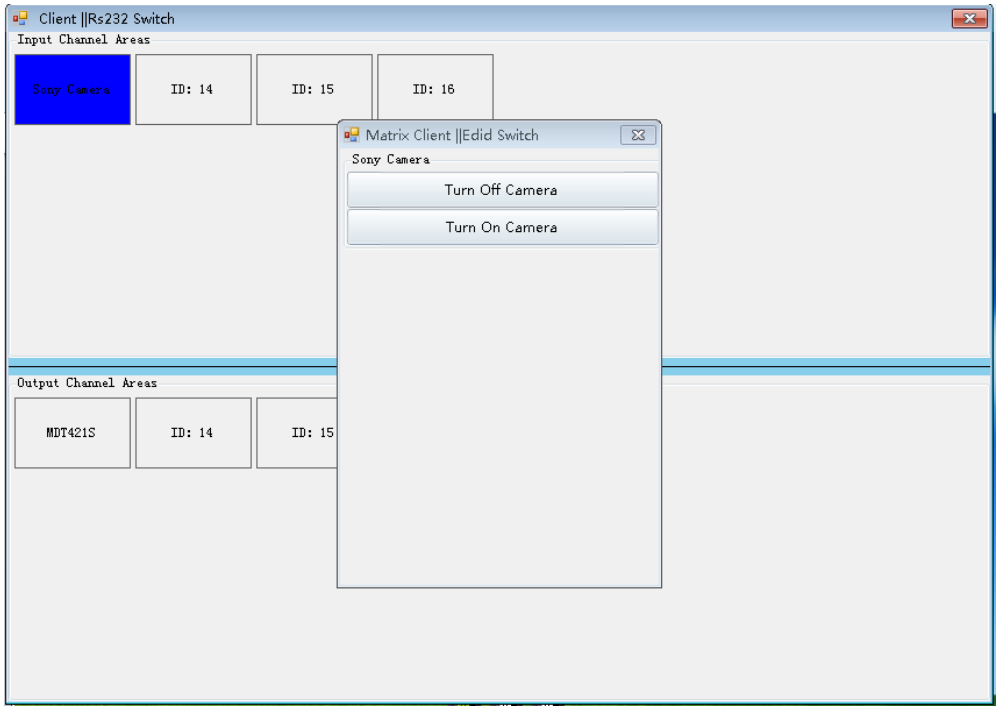
Page of EDID copy function

Page of scene recall switching function

Page of fast switching function

2. RS232 Switch

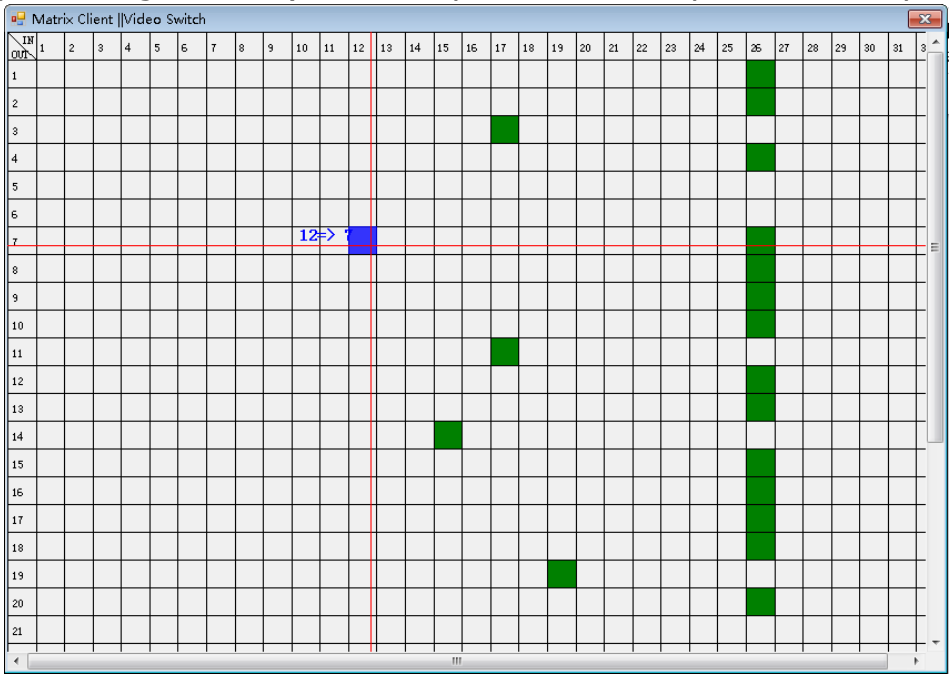
Input card 4(port 13,14,15,16) is HDBaseT card and port 13 has been define as Sony Camera and Turn on/off command before at the define page. HEX CODE:3E 43 53 49 4E 31 33 54 58 30 34 30 30 21 0D 0D will send to matrix and "30 30 21 0D" will pass through to the Camera finally.



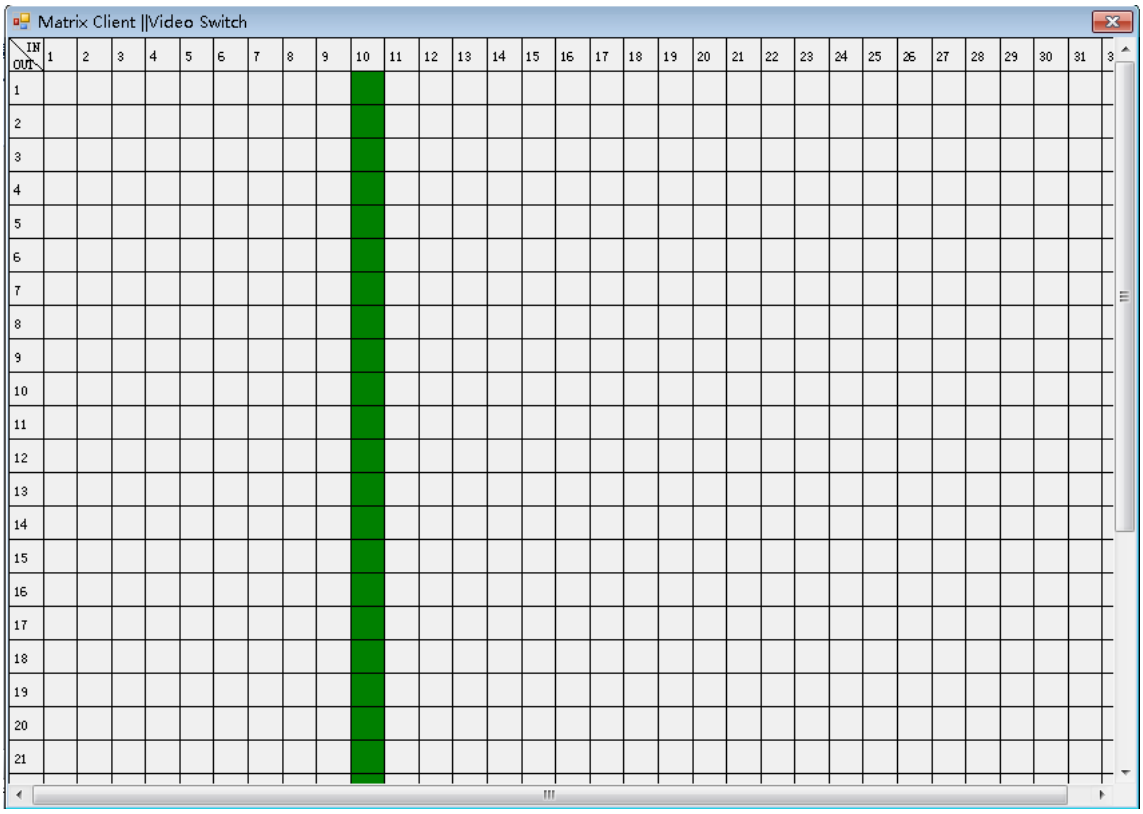
3. Video Switch(Matrix Style)

You can choose Matrix Style or Console Style in the System configuration page, you could view details in the next chapter.

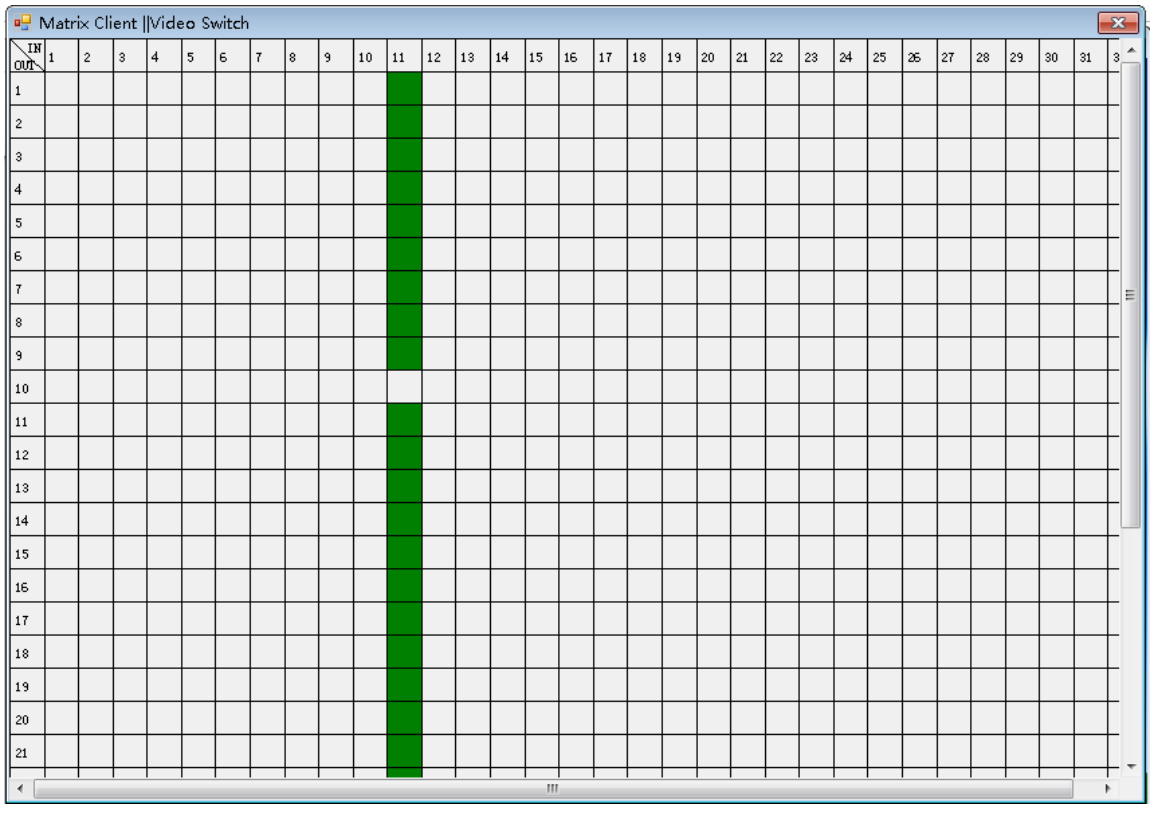
a. You can choose any square, the reading on coordinate axis is the input and output configuration (the red square means input 10 to output 7).



b. You can choose one channel input to all output by click the corresponding square on the input coordinate axis(the image below means input 13 to all output channels).

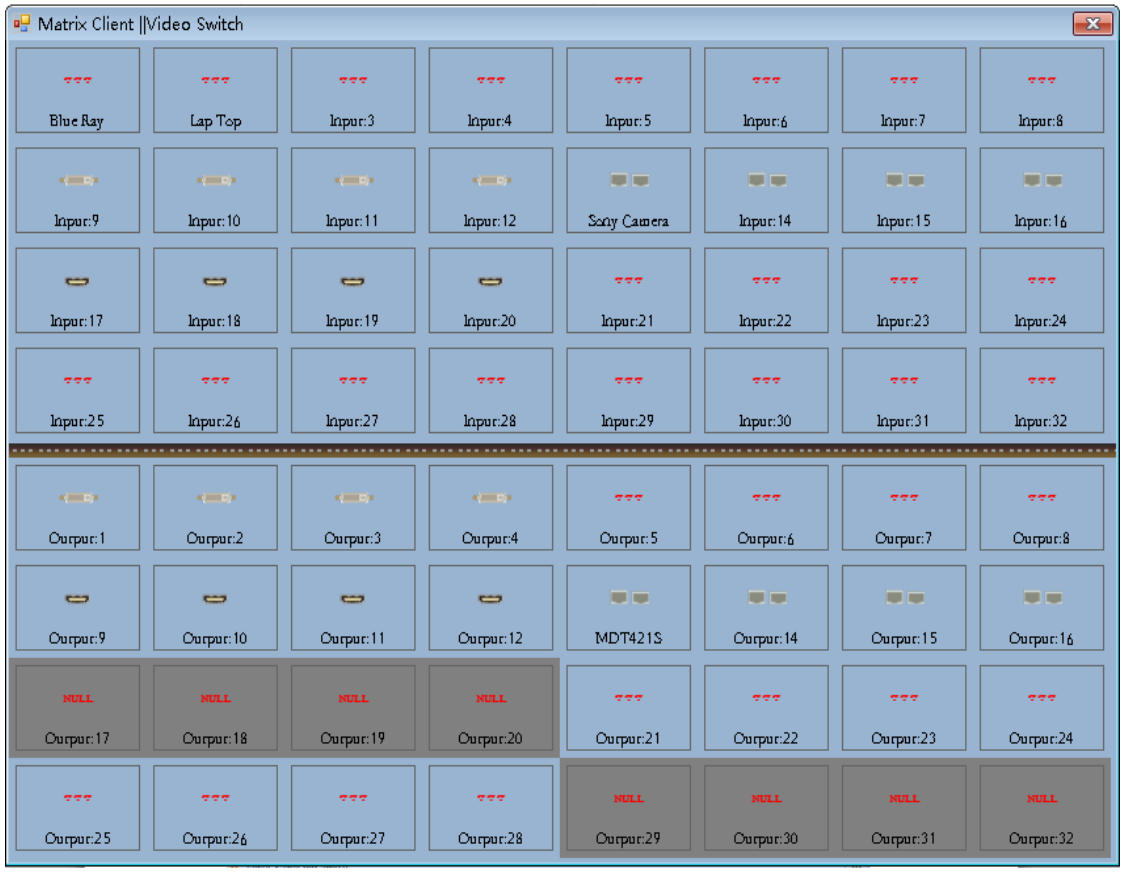


c. Green block will disappear when click it and mean mute this output.



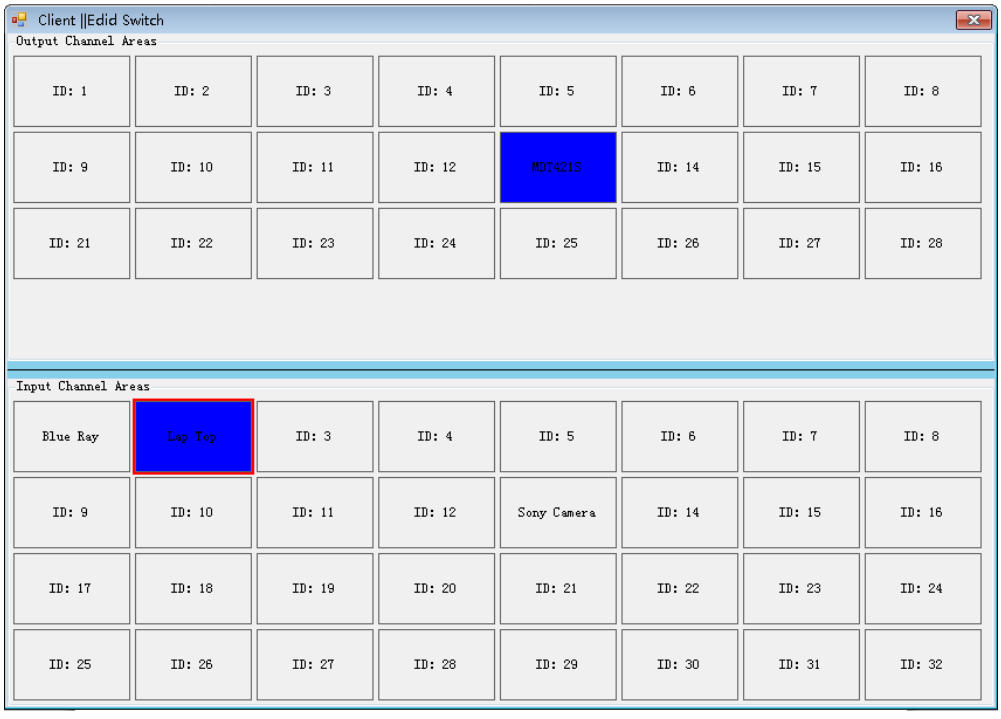
4. Video Switch(Console Style)

Channel name and port icon will be shown at this page, you can view all the cards include Null or only the online cards at the System Config Page.



5. EDID Switch

You can copy EDID in this page.

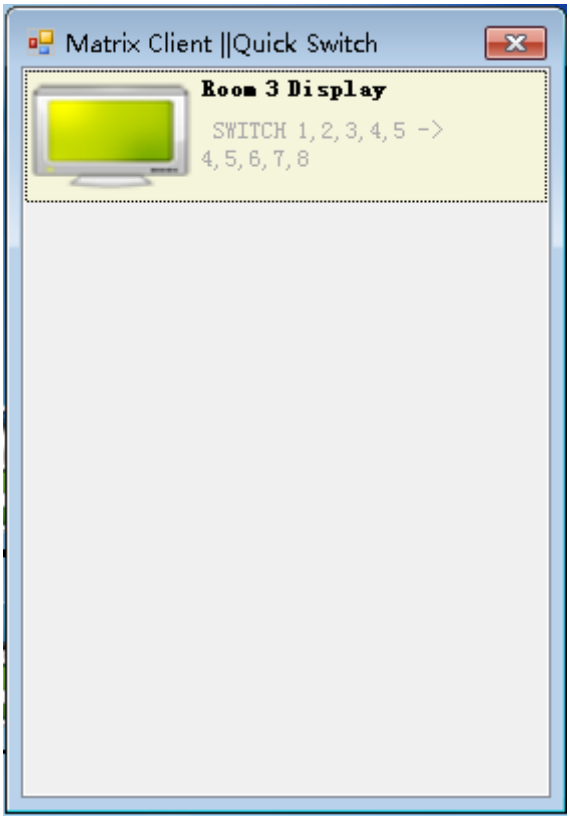


6. Scene Switch

Recall the switching which save in Scene Switch page.

7. Quick Switch

Executing switching which be defined in Quick Switch configure page.



7. System Configure Page

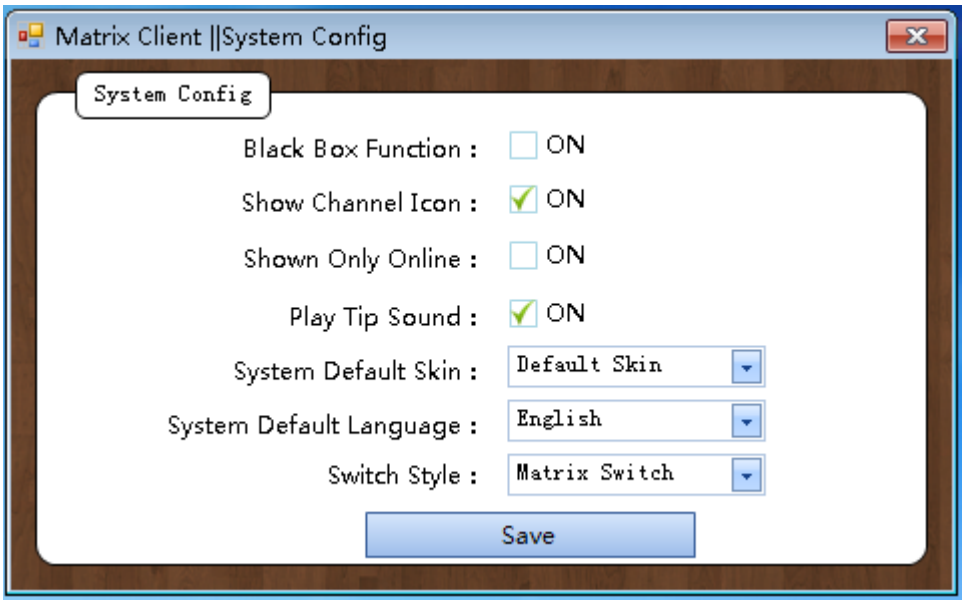
The seamless Card option will only show when there is seamless card in work.

1. System Config

Show Channel Icon: Icon of input and output port could be show at channel definition and switching function.

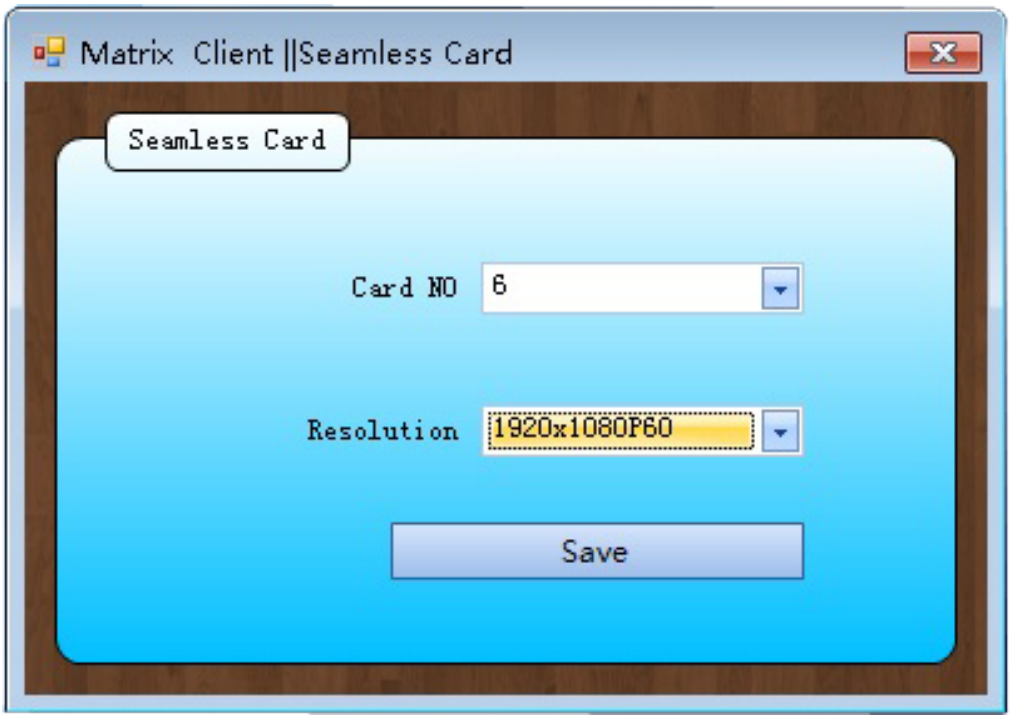
Switch Style: input and output channel name and port icon could be show at console switch style.

Matrix style is the traditional view of matrix.



2. Seamless Card

You can set resolution and for each seamless output card in this page.



Command Table

> - Command, # - Query, < Response
<cr> = 0x0D Hex / 13 Decimal

Command	String	Information	Example	Example String	Example Respons
Route Command	>Cxtoz<cr>	x = input port number z = output port number(s) For more than one port number use a comma to separate.	Route Input 5 to Output 1, 2, 3, and 4	>C5to1,2,3,4<cr>	<C5to1,2,3,4<cr>

Serial Transmit Input Command	>CSINxTXnns<CR>	x = port number(s).More than one port # use space between
		nn = byte count for string = 00 - 99 Number must be double digit and in ASCII. Single digits must have zero in front
		s = string is in ascii and can have non-printable ascii characters as well. Refer to the control system manual how to send hexadecimal inside a string. Note the hexadecimal counts as only 1 byte for the byte count.
			Send ASCII Serial string "123<CR>" to Input ports 1, 3, and 5.	>CSIN1 35TX04123<CR><CR>	<CSIN1 35TX04123<CR><CR>

Preset Command	>Rx<cr>	x = 1-9	Trigger Preset 2	>R2<cr>	<SA1, 1, 1, 1, 1, 1, 1, 1<cr>
EDID Copy Command	>ExtoZ<cr>	x = output port number z = input port number(s) For more than one port number use a comma to separate.	Copy output port1 EDID to input port1,4,5	>E1to1,4,5<cr>	<E1to1,4,5<cr>
Query Firmware Input Card	#FINCx<cr>	x = Card number	Query Input Card 1 Firmware	#FINC1<cr>	<FINC1-1.0.1<cr>
Baud Rate Setup Input Command	>BabcINx<cr>	a = baud rate = 9600, 19200, 38400 b = bits, parity, stop = 8N1, 8E1, 8O1 c = ON/OFF turn on or off RX x = port number(s). More than one port # use space between.	Set Input Port 1 Baud Rate to 96008N1 and turn off RX.	>B96008N1OFFIN1<cr>	<B96008N1OFFIN1<cr>

Preset Save Command	>Sx<cr>	x = 1-9	Save current configuration into Preset 5	>S5<cr>	<S5<cr>
Baud Rate Setup Output Command	>BabcOUTx<cr>	a = baud rate = 9600, 19200, 38400 b = bits, parity, stop = 8N1, 8E1, 8O1 c = ON/OFF turn on or off RX x = port number(s).More than one port # use space between.	Set Output Ports 1, 3, 5, and 8 Baud Rate to 192008N1 and turn on RX.	>B192008N1ONOUT1 3 5 8<cr>	<B192008N1ONOUT1 3 5 8<cr>
Query Output Card Baud Rate	#BOUTx<cr>	x = port number(s).More than one port # use space between	Query Baud Rate on Output 4, 7, & 8. Response is output 4 96008N1OFF; output 7 192008N1ON; output 8 384008N1ON;	#BOUT4 7 8<cr>	<B96008N1OUT4OFF<cr> <B192008N1OUT7ON<cr> <B384008N1OUT8ON<cr>
Query Firmware Input Port (only for RS-232 ports)	#FINPx<cr>	x = port number	Query Input Port 1 Firmware	#FINP1<cr>	<FINP1-1.0.1<cr>
Query Input Card Baud Rate	#BINx<cr>	x = port number(s).More than one port # use space between	Query Baud Rate on Inputs 1, 2, & 3. Response shows input 1 384008N1ON; input 2 96008N1ON; input 384008N1OFF;	#BIN1 2 3<cr>	<B384008N1IN1ON<cr> <B96008N1IN2ON<cr> <B384008N1IN3OFF<cr>
Query Firmware Output Card	#FOUTCx<cr>	x = Card number	Query Output Card 1 Firmware	#FOUTC1<cr>	<FOUTC1-1.0.1<cr>

Query Firmware Output Port (only for RS-232 ports)	#FOUTPx<cr>	x = port number	Query Output Port 1 Firmware	#FOUTP1<cr>	<FOUTP1-1.0.1<cr>
Query Input Card Hot Plug	#PIN<cr>	Query Input Card HPD.Note that 1 means have detected Source Input and 0 means not,X means there is not this input Port or the port is not HDMI or HDBT cards.	Query Input Card HPD. Response shows there is Source link to Input Port1 but Port2 3 4 are not,and there are not Input Port5 6 7 8.	#PIN<cr>	<PIN1000XXXX<cr>
Query Firmware Main Processor	#F0<cr>	Zero is default for main processor firmware query	Query Main Processor firmware	#F0<cr>	<F0-1.0.1<cr>

Serial Transmit Output Command	>CSOUTxTXnns<CR>	x = port number(s).More than one port # use space between
		nn = byte count for string = 00 - 99 Number must be double digit and in ASCII. Single digits must have zero in front
		s = string is in ascii and can have non-printable ascii characters as well. Refer to the control system manual how to send hexadecimal inside a string. Note the hexadecimal counts as only 1 byte for the byte count.
			Send ASCII Serial string "123<CR>" to output ports 1, 3, and 5.	>CSOUT13 5TX04123<CR><CR>	<CSOUT13 5TX04123<CR><CR>

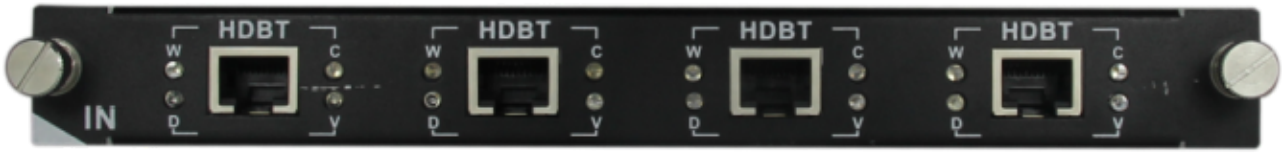
Query Input Route	#Cx<cr>	x = port number. Note if input is routed to more than one output then multiple port numbers will be listed in response separated by a space.	Query Input 3 Route. Response shows it is routed to 1, 2, & 5	#C3<cr>	<C3to1,2,5<cr>

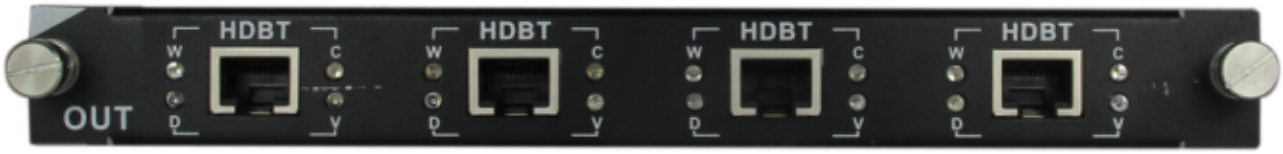
Query Output Card Hot Plug	#POUT<cr>	Query Output Card HPD.Note that 1 means have detected Sink Input and 0 means not,X means there is not this Output Port or the port is not HDMI or HDBT cards.	Query Output Card HPD. Response shows there is Sink link to Output Port8 but Port5 6 7 are not,and there are not Output Port1 2 3 4.	#POUT<cr>	<POUTXXXX00001<cr>
Query I/O card online status	#SY<cr>	Query Input Card and Output Card online status.	Query Input Card and Output Card online status on MVM-88.Zero indicate that slot is empty.And 1 for HDMI Card,2 for DVI Card ,3 for HDBT Card etc.	#SY<CR>	<SY1,0,2,3,1,2,3,0<cr>

I/O Card

1. HDBaseT I/O Card

Mode:
Input-MC2-IN-HDBT-70 / MC2-IN-HDBT-100
Output- MC2-OUT-HDBT-70 / MC2-OUT-HDBT-100



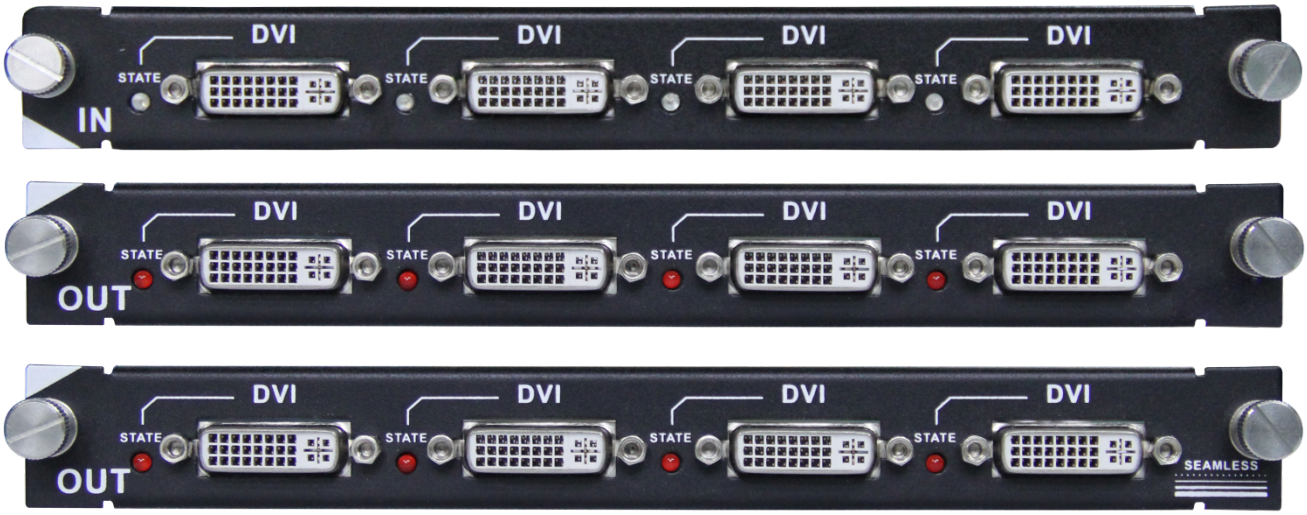


Model	EDID Management	HDCP Management	DVI Format Auto Adapted	Distance	CATx
S1	Yes	Yes	Yes	70m	28V, HDMI, RS232
S2	Yes	Yes	Yes	100m	28V, HDMI, RS232

LED	Description	Status
W	Working LED	Always off - Fail to work
		Blinking - Working normally
C	Connection LED	Always off - Fail to connect to extender
		Always on - Connect to HDBaseT extender
V	Signal LED	Always off - No video signal input or output
		Always on - Video signal input or output
		Note:V-LED of port 1 and 3 is blinking 3s and off when system boot up. If V-LED of port 1 and 3 always blinking mean there is defective on the card, please remove it
D	HDCP LED	Blinking - Signal without HDCP
		Always on - Signal with HDCP

2. DVI I/O Card

Mode:
Input-MC2-IN-DVI
Output-MC2-OUT-DVI
Output-MC2-OUT-DVI-S

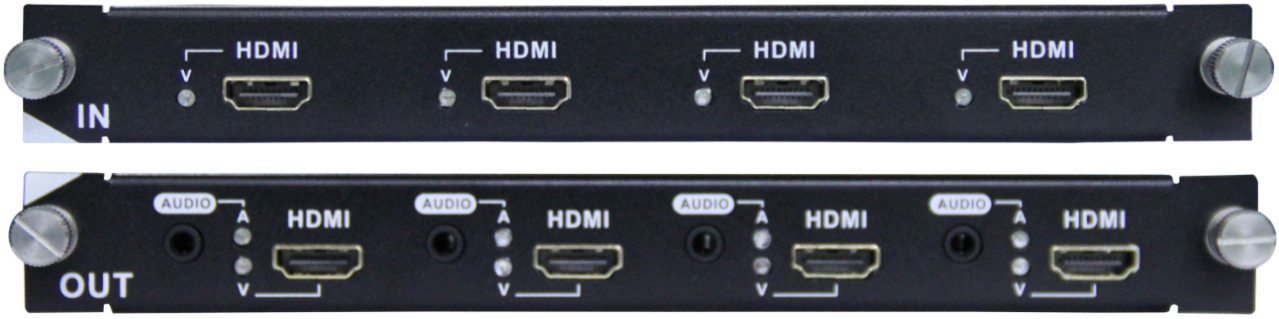


Model	EDID Management	HDCP Management	Seamless	Audio
Input-DVI	Yes	Yes	No	No
Output-DVI	Yes	Yes	No	No
Output-DVI-S	No	No	Yes	No

LED	Description	Status
State	Video LED	Always off - No video signal input or output
		Always on - Video signal input or output
		Note: V-LED of Port 1 and 3 is blinking 3s and off when system boot up. If V-LED of port 1 and 3 always blinking mean there is defective on the card, please remove it

3. HDMI I/O Card

Mode:
Input-MC2-IN-HDMI
Output-MC2-OUT-HDMI



Model	EDID Management	HDCP Management	DVI Format Auto Adapted	Audio
Input-HDMI	Yes	Yes	Yes	Yes
Output-HDMI	Yes	Yes	Yes	Yes

LED	Description	Status
A	Audio Output LED	Always Off - No audio output
		Always On - Audio output
V	Video LED	Always off - No video signal input or output
		Always on - Video signal input or output
		Note:V-LED of port 1 and 3 is blinking 3s and off when system boot up. If V-LED of port 1 and 3 always blinking mean there is defective on the card, please remove it

4. HDBaseT Input Card with Ethernet Port

Mode:
Input-MC2-HDBT-100-HDBT2E

Model	EDID Management	HDCP Management	DVI Format Auto Adapted	Distance	CATx
Input-HDBT2E	Yes	Yes	Yes	100m	28V,HDMI, Ethernet, RS232

LED	Description	Status
W	Working LED	Always off - Fail to work
		Blinking - Working normally
V	Signal LED	Always off - No video signal input or output
		Always on - Video signal input or output
		Note:V-LED of port 1 and 3 is blinking 3s and off when system boot up. If V-LED of port 1 and 3 always blinking mean there is defective on the card, please remove it

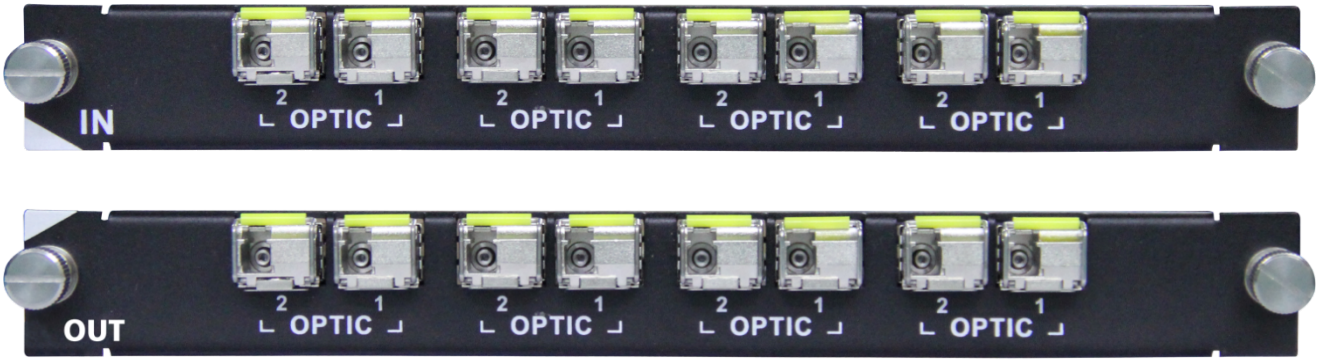
5. HDMI Input Card with Looping Output

Mode:
Input-MC2-IN-HDMI2

Model	EDID Managemen	HDCP Management	Audio	Loop
Input-HDMI2	Yes	Yes	Yes	4 channels loop output

6. Fiber Optic I/O Card for DVI

Mode:
Input-MC2-IN-Optic-D
Output-MC2-OUT-Optic-D



Model	EDID Management	HDCP Management	Distance	Audio
Input-Optic-D	Optic TX Leam EDID	No	1500m single-mode 500m multi-mode	No
Output-Optic-D	No	No	1500m single-mode 500m multi-mode	No

LED	Description	Function
1	Optic Channel 1	Connect to extender channel 1
2	Optic Channel 2	Connect to extender channel 2

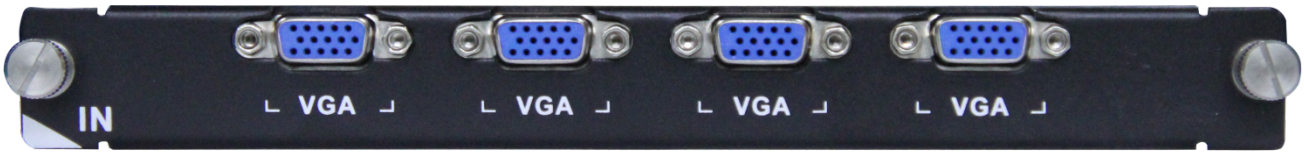
7. 3GSDI Input Card

Mode:
Input-MC2-IN-3GSDI

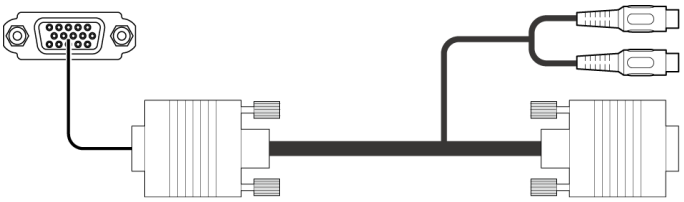
Model	Decription	Compliance	Looping
Input-3GSDI	4 channels 3GSDI input card	HD/SD/3G SDI	Support 4 channels SDI looping output

8. Analog Input Card

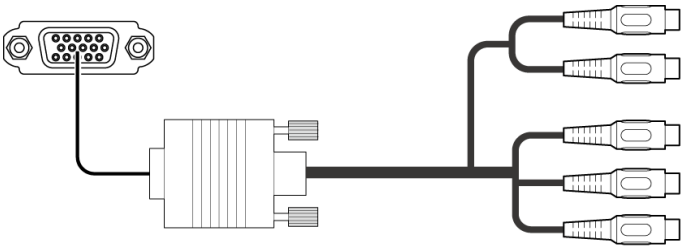
Mode:
Input-MC2-IN-VGA
Input-MC2-IN-2V1Y1C
V=VGA, Y=YUV, C=CVBS



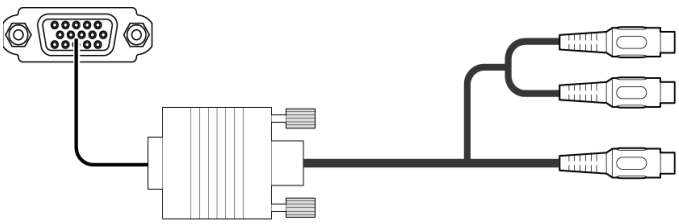
Model	EDID Management	Scaler	Audio
VGA	Yes	No	Yes
YPbPr	No	720/1080 at factory	Yes
CVBS	No	720/1080 at factory	Yes



Cable for VGA&Audio



Cable for YPbPr&Audio



Cable for CVBS&Audio

9. SDI&HDMI Multi-input Card

Mode:
Input-MC2-IN-2S2H

Port	Decription	Compliance	Looping
SDI	SDI input	HD/SD/3G SDI	Support 1 channel SDI looping output

Port	EDID Management	HDCP Management	DVI Format Auto Adapted	Audio
HDMI	Yes	Yes	Yes	Yes

10. Analog&HDMI Input Card

Mode:
Input-MC2-IN-2V2H

Port	EDID Management	Scaler	Audio
VGA	Yes	No	Yes

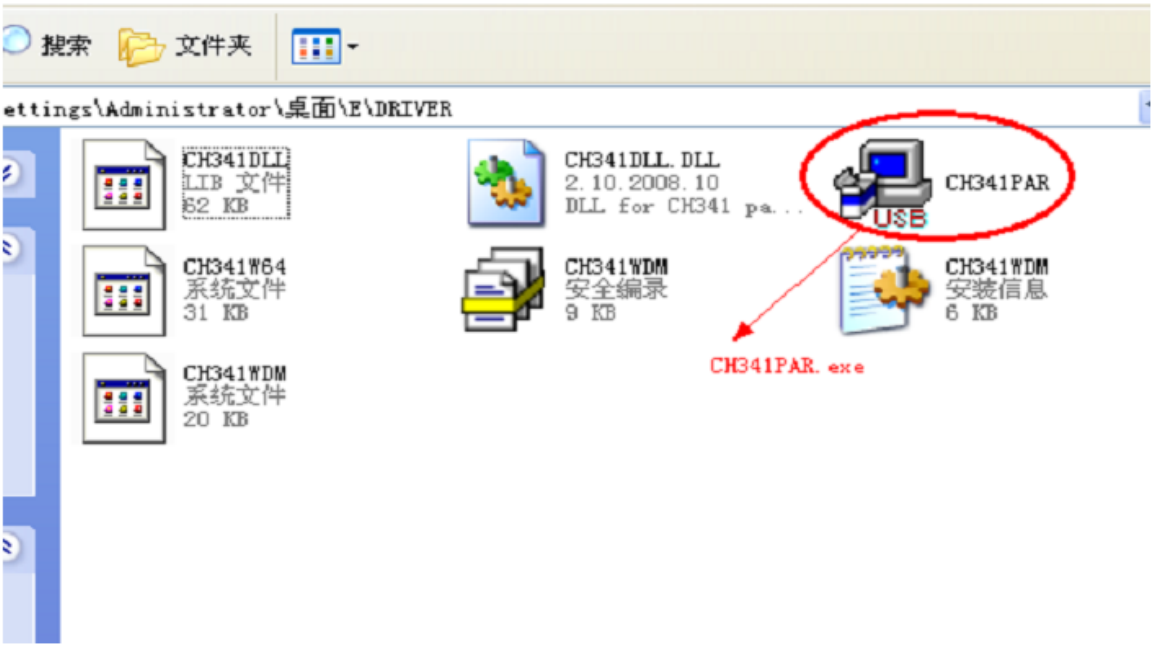
Port	EDID Management	HDCP Management	DVI Format Auto Adapted	Audio
HDMI	Yes	Yes	Yes	Yes

Firmware Update

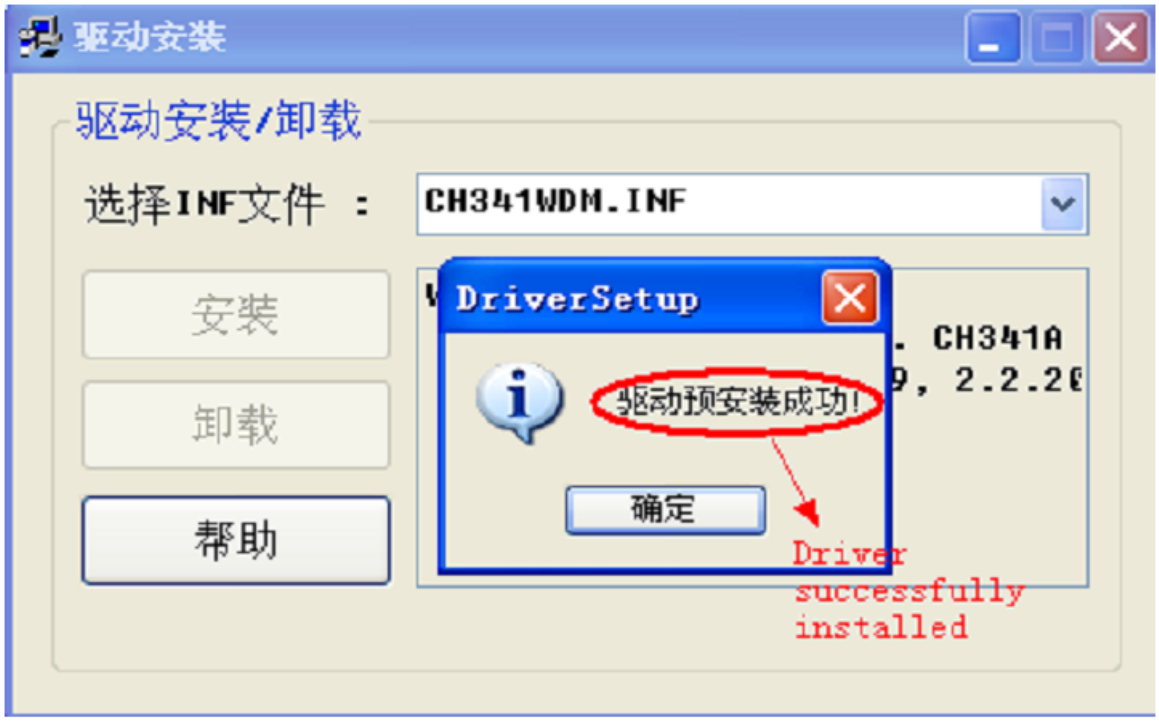
Current FW Version is V2.2.6 but also offer an easy update way for future application.

1. Driver Installation:

1. **Open DRIVER Folder, run "CH341PAR.exe", click "安装".**

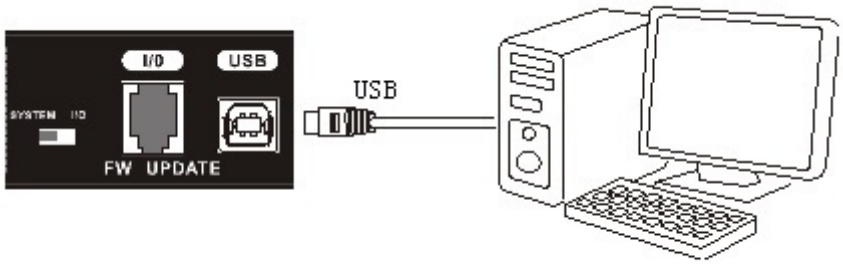


2. If Pop-up "驱动预安装成功" dialog box, indicate that the drive has been successfully installed.



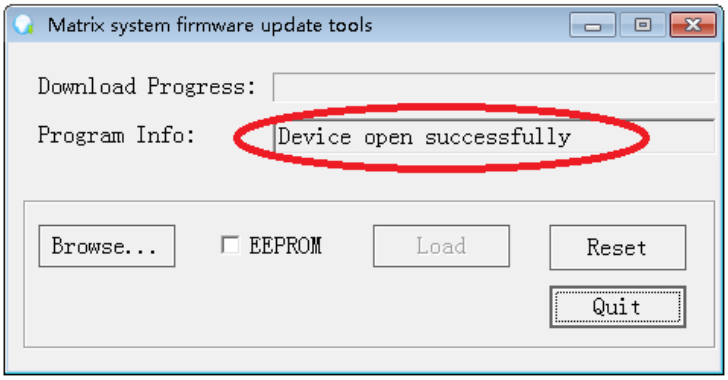
2. FW Update for Cardcage

1. Connect PC and Matrix USB port by USB cable and switch to System as picture

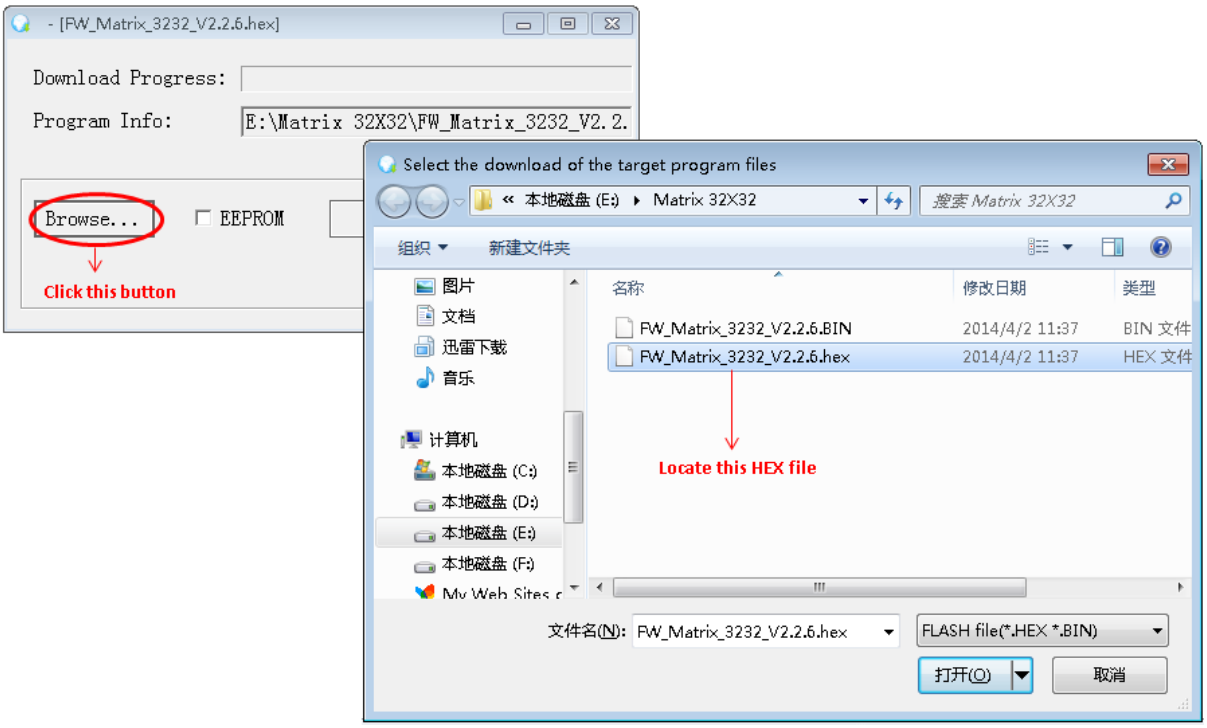


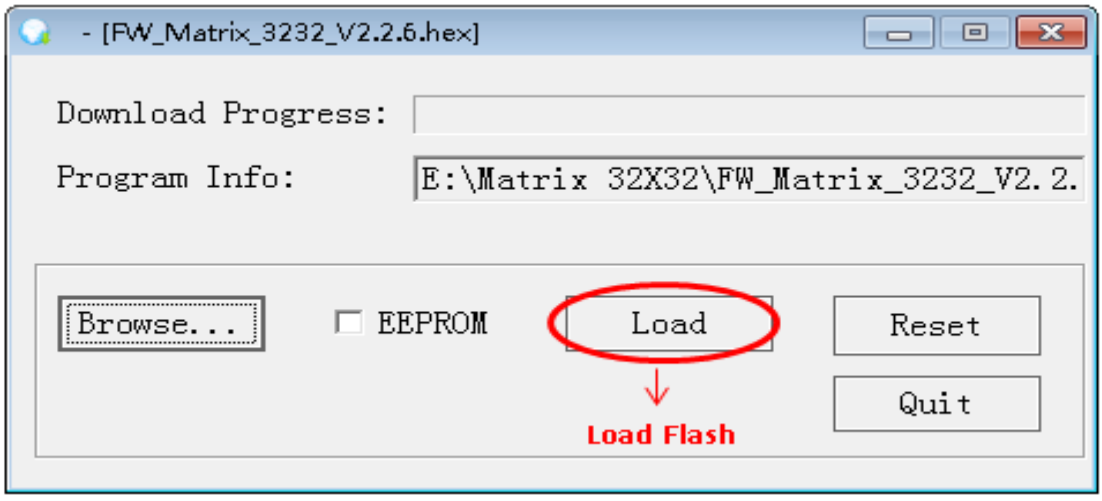
2. Run Update Tools.exe

3. If the Program Info dialog box indicate "Device open successfully", then you can download your FLASH or EEPROM.

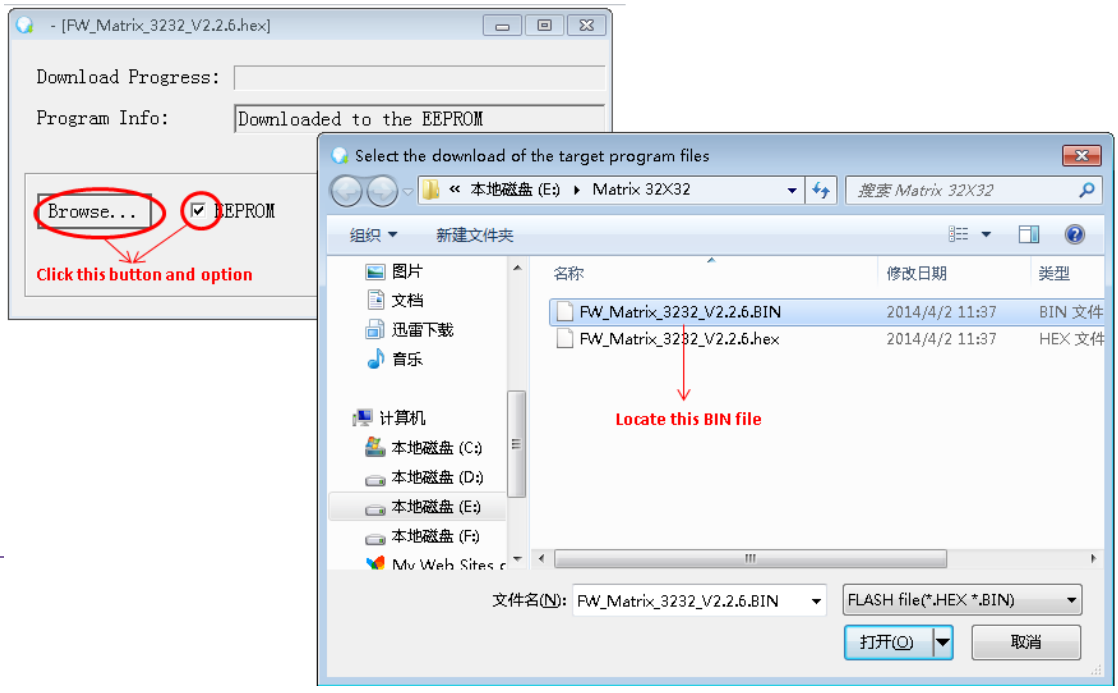


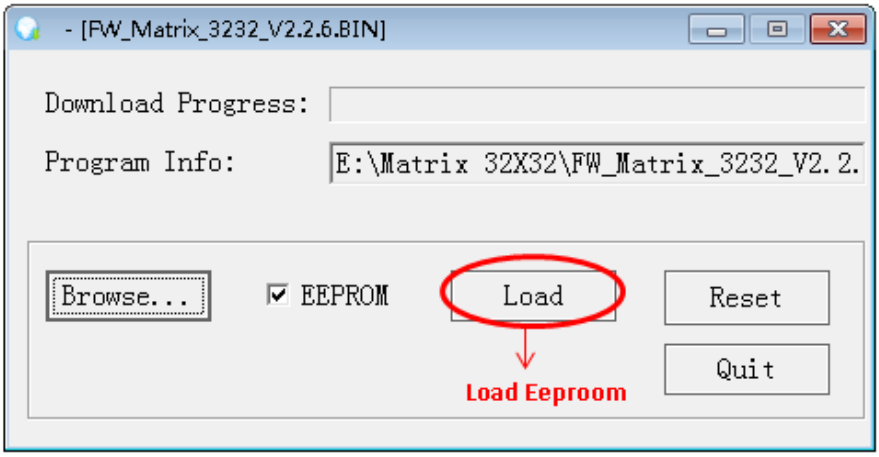
4. Load Flash:



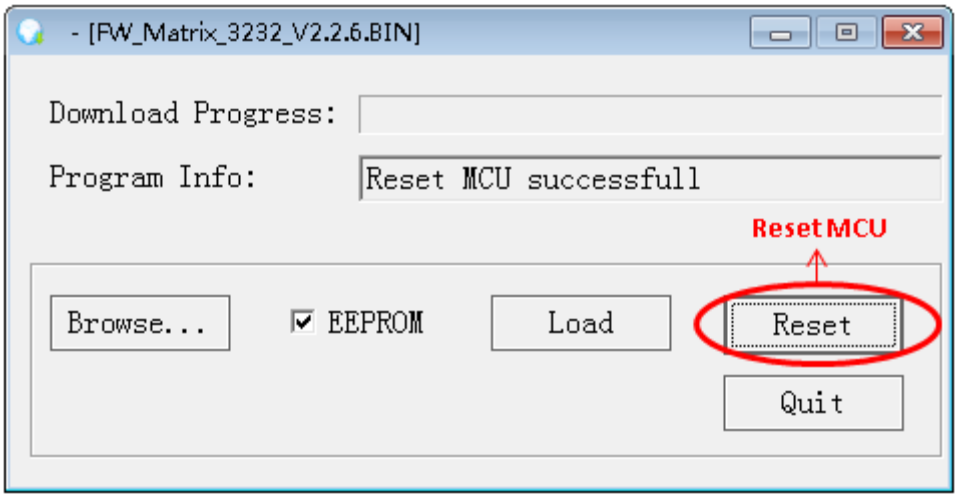


5. Load EEPROM:

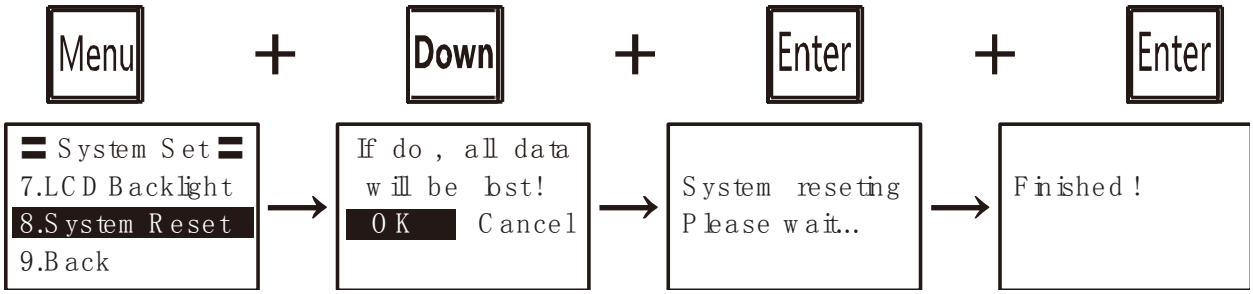




6. You must click "Reset" button when you have finished loading your Flash and EEPROM.



Note: do not forget to run System Reset on the front panel when finish FW update.

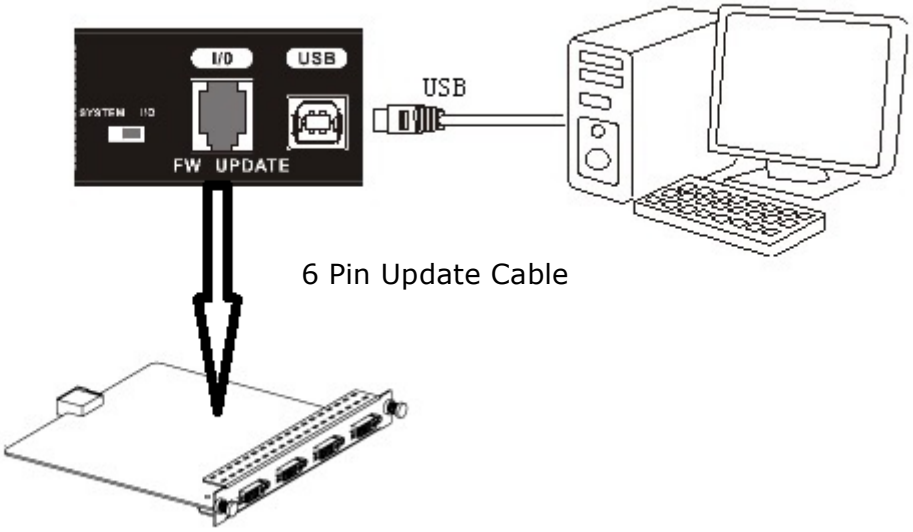


You can find the FW info with different Cardcage in the chart below.

Cardcage	Current FW File	Current EEPROM File
Matrix 88	FW_Matrix_88 V2.2.6.hex	FW_Matrix_88 V2.2.6.bin
Matrix 1616	FW_Matrix_1616 V2.2.6.hex	FW_Matrix_1616 V2.2.6.bin
Matrix 3232	FW_Matrix_3232 V2.2.6.hex	FW_Matrix_3232 V2.2.6.bin

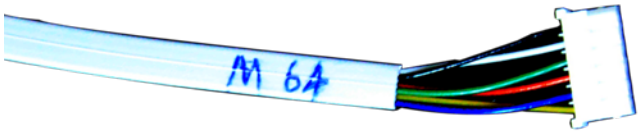
3. FW Update for I/O Card

1. Connect PC and Matrix USB port by USB cable;
Move card from cardcage and connect cards and Matrix by 6 pins update cable; switch to I/O as picture



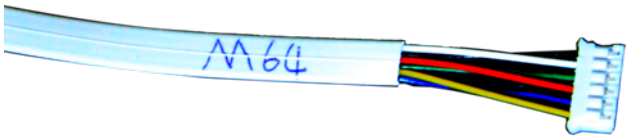
6 Pin Update Cable

You will get 3 Updating cables with the Matrix, it's used for connecting FW UPDATE port of Matrix to I/O card.

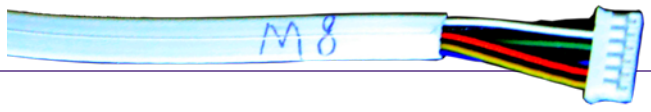


M64-A

5Pin Update Cable

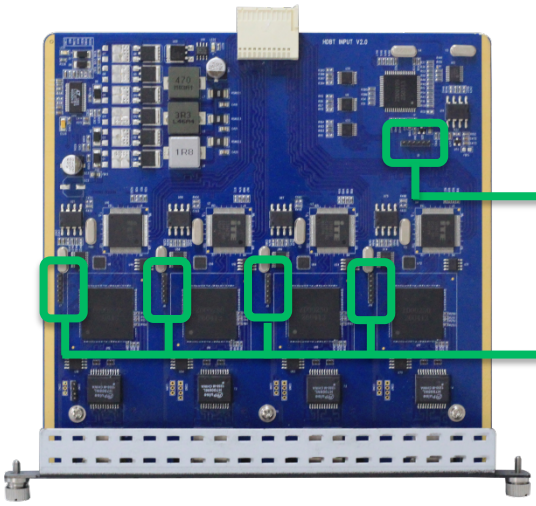


M64-B



M8-B

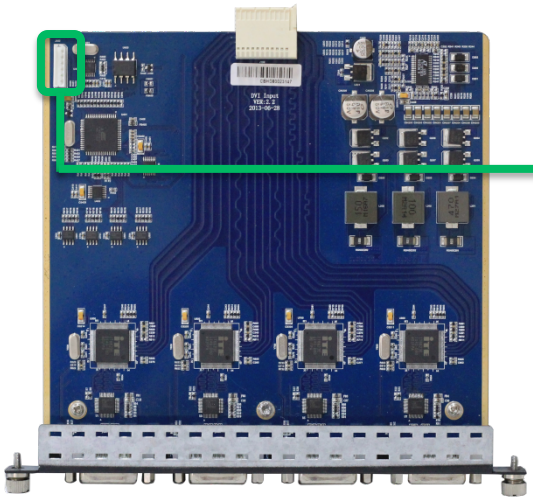
I/O card's connecting port is in different place as different Mode, 5 types in all, please see as below



This type is applied to Input-HDBT, Output-HDBT,

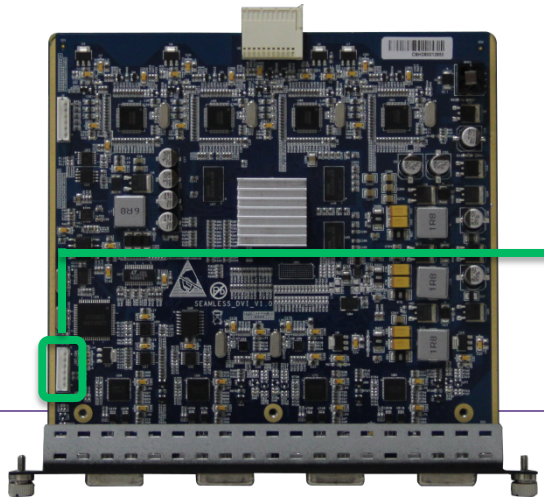
Connect M64-B

Connect M8-B



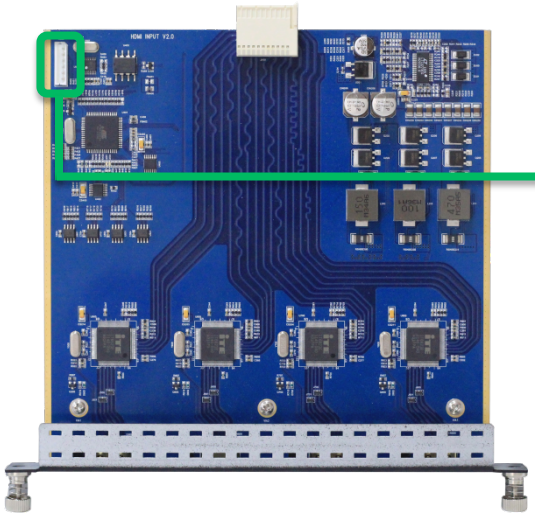
This type is applied to Input-DVI, Output-DVI.

Connect M64-A



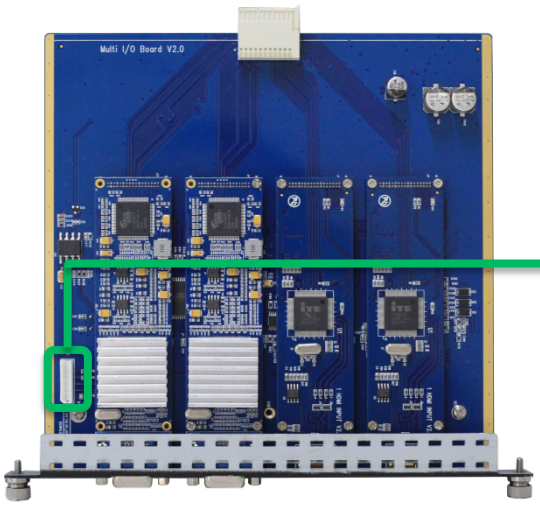
This type is applied to Input-DVI-S.

Connect M64-A



This type is applied to Input-HDMI, Output-HDMI, Input-HDMI2.

Connect M64-A



This type is applied to Input-2S2H, Input-2V2H,Input-OPTIC-D, Output-OPTIC-D

Connect M64-A

You can find the corresponding cable with different I/O card in the chart below.

I/O Card	Current FW File	Current EEPROM File	Updating Cable
Input-HDBT-S1/S2	FW_4HDBT_IN V2.2.6.hex	None	M64B
	FW_4HDBT_RS232_IN V2.2.6.hex	None	M8B
Output-HDBT-S1/S2	FW_4HDBT_OUT V2.2.6.hex	FW_4HDBT_OUT V2.2.6.bin	M64B
	FW_4HDBT_RS232_OUT V2.2.6.hex	FW_4HDBT_RS232_OUT V2.2.6.bin	M8B
Input-DVI	FW_4DVI_IN V2.2.6.hex	None	M64A
Output-DVI	FW_4DVI_OUT V2.2.6.hex	FW_4DVI_OUT V2.2.6.bin	M64A
Output-DVI-S	FW_4DVIS_OUT V2.2.6.hex	FW_4DVIS_OUT V2.2.6.bin	M64A
Input-HDMI	FW_4HDMI_IN V2.2.6.hex	None	M64A
Output-HDMI	FW_4HDMI_OUT V2.2.6.hex	FW_4HDMI_OUT V2.2.6.bin	M64A
Input-HDBT2E	FW_4HDBT2E_IN V2.2.6.hex	None	M64A
	FW_4HDBT_RS232_IN V2.2.6.hex	None	M64A
Input-HDMI2	FW_4HDMI_IN V2.2.6.hex	None	M64A
Input-Optic-D	FW_4MULTI_IN V2.2.6.hex	None	M64A
Output-Optic-D	FW_4MULTI_OUT V2.2.6.hex	FW_4MULTI_OUT V2.2.6.bin	M64A

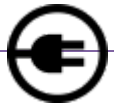
2. Run Update Tools.exe and operate as Cardcage FW update.

Safety Information

To reduce the risk of electric shock, do not expose this product to rain or moisture

Do not modify the wall plug. Doing so will void the warranty and safety features

If the wall plug does not fit into your local power socket, hire and electrician to replace your obsolete socket.



This equipment should be install near the socket outlet and the device should be easily accessible in the case it requires disconnection

Warranty

Warranty time is two year and from the date of original shipment.
This warranty shall be void if a serial number has been removed from the product.

Upon determination of a legitimate defect covered by this warranty and at sole discretion, user should bear the transport cost during the warranty.

If product is out of warranty then repair charge is required. Minimum repair charge: 10% of the retail price plus the cost of failed components. We will repair the failed product after repair cost has been approved by Customers and proper financial arrangements are made. Customer must cover round trip shipment expenses.

Return and RMA Policies

Shipments will not be receiver and processed for warranty repair/replacement without an RMA(Return Materials Authorization).