User Manual

WolfPack Card Cage Matrix Switcher Series

Preface

We are honored for your purchasing of our products. To have the best performance of the products, please read the user manual carefully before using them. Hope this user manual can bring more convenience, and please don’t hesitate to get in touch with us or your local dealer if you have any issue during your usage.

Note: This user manual is for 9x9 matrix switch, 18x18 and 36x36 also can reference this user manual as well.

SAFETY

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.

Attention the equipment needs good earth grounded

- Please use single-phase three wire system AC 220V power supply, and ensure all transmission system is grounding well.
- To protect operating personnel and the device，please turn off all power supplies and pull the plug before moving the device or doing some specific works which need to be done when the electricity is turned off. Please turn off the main power switch on rainy days or when not in use for a long time.
- Please do not put anything upon the cables, or tread the cables.
- To avoid damaging the device, please turn off power supply before plugging cable into the device or pulling cable from device. The damage caused by plugging/ pulling cables without turning off power supply is outside the scope of the warranty.
- The power of the device gives out heat when it works, so it’s necessary to keep the work environment ventilated to protect the device from the damage caused by over temperature.
- Do not place the device in very cold or very hot places. Do not sprinkle any corrosive chemicals or liquid on or around the device.
- To avoid accident or any further damage, non-professionals please do not dismantle or maintain the device without permission.

Contents

1. Product Introduction

Mini chassis series Matrix switch is the newest Mini Type multifunction modular matrix, with modular designing, plus the audio de-embedding, video extension, splitting, switching function. With buttons management designing, there are 3 models: Mini99 supports 9x9, Mini1818 supports 18x18, Mini3636 support 36x36. All the signal input and output cards using 1-card 1-port, provides the most flexible configuration ability for users, with the universal card can reach any switching, converting, extension, resolution adjustment between CVBS / YPbPr / VGA / HDM I/ DVI with different connectors, supports 4K, EDID, HDCP automatic adaptation and resolving, supports seamless fast switching function, using dual control system designing, can connect with 2 different control systems. With electromagnetic protection designing, it can efficiently shield the electromagnetic interference for the surrounding environment to make sure the equipment running more stable.

The single channel signal switching speed of the Mini modular matrix switch can reach 12.5Gbps, the main board is using Four core four links processing technology, the switching ability speed can reach 32Gbps. With uncompressed transmission way for the digital signal to make sure the image High fidelity output. Unique signal links shielding designing technology to make sure the signal completeness, the internal data switch has super strong capacity of resisting disturbance and long continuous and stable working ability. With newest and advance algorithm to make sure the efficient instantaneity. Users can choose the CVBS / YPbPr / VGA / HDMI / DVI / SD-HD-3GSDI / HDBaseT/ Fiber and so on signal as input or output, to realize large number configuration, flexible card cage

designing, modular chassis. With unique processing way, it improves the switching speed and realize no waiting between different control commands and seamless switching. Complete designing perfectly solves the video system has too many sources and the compatibility between the analog and the digital signal. And maximum reducing the costs, it's better for system upgrading, extension and maintenance. Overvoltage protection and ESD anti-static etc technology protection procedures, to avoid the external impact. Supports power down status protection, restart automatic recovery function. Meanwhile it can support strong HDBaseT and Ethernet extension and management ability. Support 7*24 continuous operation. Support dual LAN and RS232 backup control, it's convenient for users to control via PC, central control and other remote-control equipment.

Mini modular matrix switch widely used in HD visual conferencing, radio and television project, multimedia conferencing hall, large screen display project, television teaching, command control center and so on.

2. Product Features

Modular designing, 1-card 1-port designing, can support CVBS/ VGA/ YPBPR/ DVI/ HDMI/ HDSDI/ 3GSDI/ HDBaseT/ Fiber all signal mixing input and output

Support seamless switching between all the signals

Strong signal switch processing ability, with 4 cores 4 links chip, the processing speed can reach 32Gbps

Broadcasting professional with light button designing, easier for users to do the switching, setup and so on function.

Support EDID automatic recognition and compatible with HDCP

Support all video signal stereo audio de-embedded, splitting and switching

Support 4k/30, 4K60, HDMI2.0 444 digital HD video signal transmission and seamless switching

Support 3D image frequency repairing, close to pixel reread processing and 3D wipe off interlacing processing function

Support scale up/down the frequency processing, close to pixel repairing processing and fuzzy processing function

Support dual LAN backup control function, and realize the maximum centralization network management function.

Support hot-plug function

Support power down scene auto saving protection function, restart auto recovery function

Support HDBaseT HD video signal converting and transmission function, to work with the HDBaseT receiver/ transmitter, the distance can reach 70/ 100 meters (220/330 ft), and the bandwidth can up to 10 Gbps

Support fiber optic input and output, the distance can reach 2,000~10,000 meters(6561~32808ft), the maximum can reach 80,000 meters(262,467ft)

Embedded strong WEB server, can realize remote network control and management

Support strong network centralization control function, one signal control interface can reach 254 matrices switch system

Support over voltage, current, heat and over loading protection, it can efficiently reduce the defective rates

3. Technical Datasheet

Model	9x9 Card Cage	18x18 Card Cage	36x36 Card Cage
Description	Mini99 modular universal matrix switch	Mini1818 modular universal matrix switch	Mini3636 modular universal matrix switch
Card Slots	9 slots for each, 1-card 1-port	18 slots for each, 1-card 1-port	36 slots for each, 1-card 1-port
Input Card	1-card 1-port, support HDMI, DVI, 3GSDI, VGA, YPBPR, CVBS, HDBaseT, Fiber Optic		
Output Card	1-card 1-port, support HDMI, DVI, 3GSDI, VGA, YPBPR, CVBS, HDBaseT, Fiber Optic		
Protocol	HDMI1.4a/ HDMI2.0, DVI1.0, compatible with HDCP and EDID function		
Color Space	RGB444, YUV444, YUV422, support x.v. Color extension color gamut standard		
Resolution	640x480---1920x1200@60Hz(VESA), 480i---4K30Hz(HDTV), 4K60Hz		
Data Speed	12.5Gbps		
Transmission distance	70/ 100m(Cat6), 2000m(multi-mode), 80Km(Single-mode), 25m(Digital cable), 30m(Analog cable)		
Control Methods	Broadcasting switching button, dual RS232+LAN control		
Dimension	482*390*88(2U)mm	482*390*178(4U)mm	482*390*355(8U)mm
Weight	6KG(No cards)	12.5KG(No cards)	25KG(No cards)

Consumption	17W(No cards)	21W(No cards)	30W(No cards)
Power Supply	AC 110V-240V 50/60HZ		
Working Temp	-10℃ - 50℃		
Storage Temp	-25℃ - 55℃		

4. Packing Details

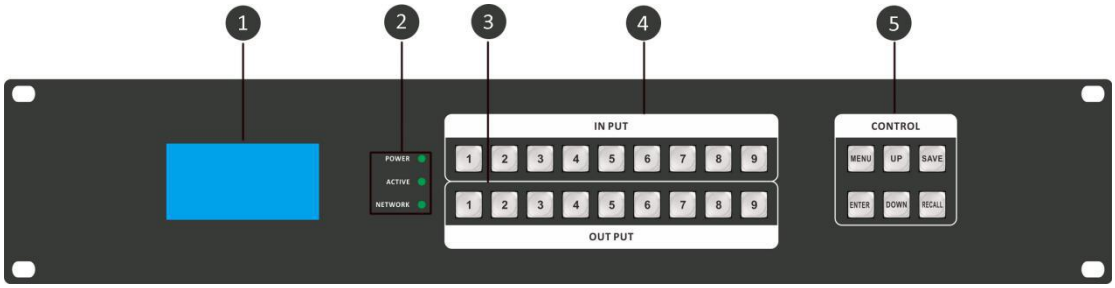
Mini modular universal Matrix switch.....1 unit

Power cord.....2 pcs

User manual.....1 pcs

5. Panel Diagram

Front Panel



① LCD display screen, for the equipment current operation status

② LED indicator

③ POWER: power indicator, it will light up after power on, it will light off after power off

④ ACTIVE: switching indicator, it will flash while using the buttons/ WEB switching successfully

⑤ NETWORK: LAN control indicator, it will flash while using the WEB control operation

⑥ INPUT: input buttons, broadcasting with light button, from 1~9 input buttons

⑦ OUTPUT: output buttons, broadcasting with light button, from 1~9 output buttons

⑧ CONTROL:

MENU: menu button, it can recycling select the View, Switch, Scene Save/ Recall and Setup functions

UP: Up button

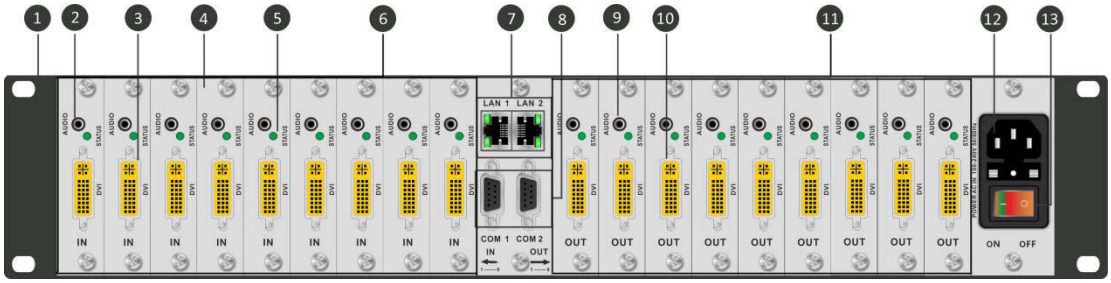
SAVE: Save button for saving the scene

ENTER: enter button

DOWN: down button

RECALL: Reload button for reloading/ recalling the saved scene

Rear Panel:



1) Rack ear for mounting on the 19inch rack

2) 3.5mm auto adaption audio input, it can switch automatically to 3.5mm audio input while the input sources are VBS/YPBPR/VGA/DVI

3) DVI-I input port, it can support DVI, HDMI, VGA, CVBS, YPbPr input with different connectors

4) Input blank cover

5) Status indicator, it will light up while the cards power on

6) Input Area: it can support DVI, HDMI, VGA, CVBS, YPbPr, FIBER, HDBaseT signals mixing input

7) LAN Control Port: dual LAN control, support 2 different control system with long distance control

8) RS232 control port: dual serial control port, via RS232 cable connection control

9) 3.5mm auto adaption audio output

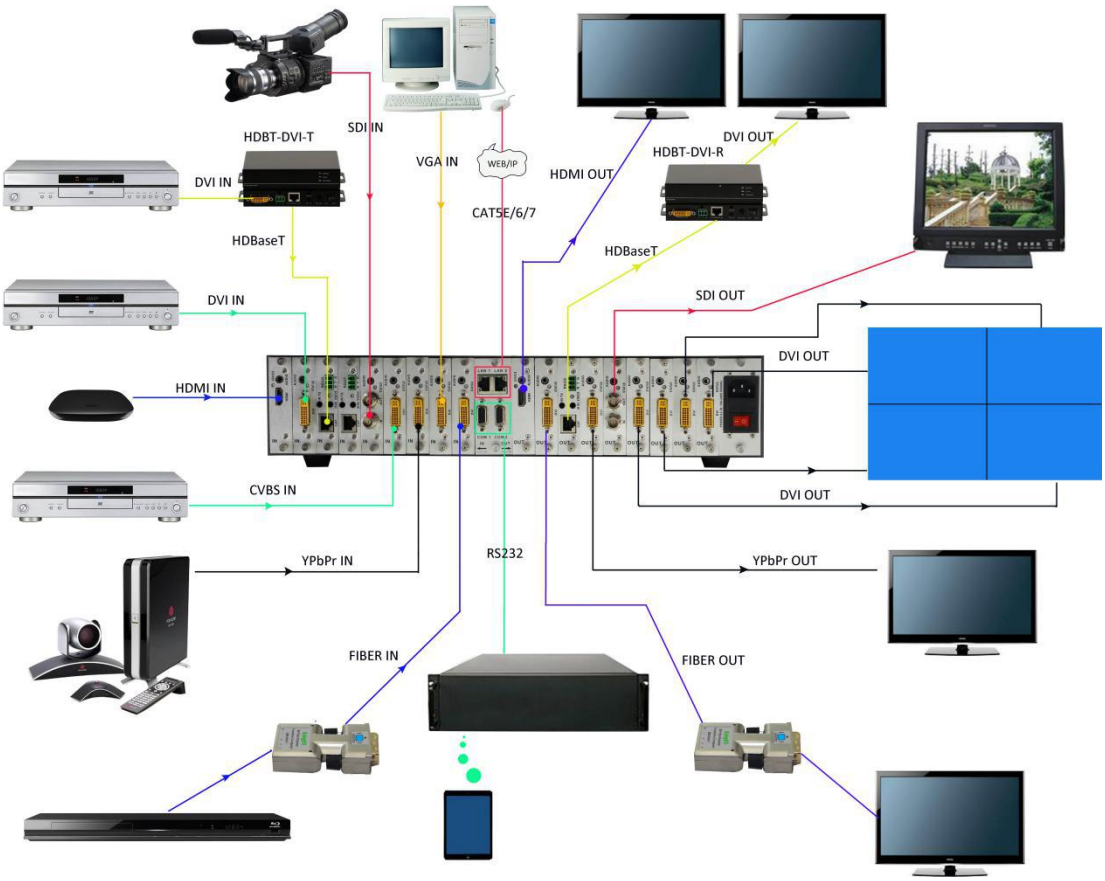
10) DVI-I output port, it can support DVI, HDMI, VGA, CVBS, YPbPr input with different connectors

11) Output Area: it can support DVI, HDMI, VGA, CVBS, YPbPr, FIBER, HDBaseT signals mixing input

12) Power supply AC 110V-240V 50/60Hz

13) Power OFF/ON switch

6. Equipment Connection Diagram



7. Equipment Operation and Instruction

The LCD display screen will light up after power and turned on. It shows the current operation status, press MENU button, it will keep recycling between VIEW, SWITCH, SCENE, SETUP four different interface. The default interface is VIEW.

7.1 Font panel buttons switching operation

7.1.1 Switching operation

Switching with industry 2-key fast switching, first press the input button and then select/press output button. Details are as follow:

- ➢ There are 1~9 nine input buttons, 1~9 nine output buttons. First press MENU to show SWITCH interface, then can continue the next switching step
- ➢ Press input number at the INPUT area, the input button will light up with blue light
- ➢ Then press output number at the OUTPUT area, and the output button will light up. Users also can press the UP button to realize 1 to ALL switching.
- ➢ If need to cancel switching, can press the button again to cancel. Users also can press the DOWN button to cancel all outputs

7.1.2 Scene Operation

- ➢ The system can save 24 scenes, after switching successfully in the SWITCH interface, press MENU button and switch to SCENE interface.
- ➢ Enter the wanted scene save number(1~24), then press SAVE. If want to reload the saved scene, press the scene number and press RECALL button

Note: Via front buttons to save/recall scene, Mini99 only support 9 scenes, Mini1818 supports 18 scenes

7.1.3 Setup Operation

- ➢ First press MENU switch to SETUP interface, then continue next operation
- ➢ Via SETUP, it can realize IP address changing, in SETUP interface can use UP/ DOWN button to position, enter the needed IP address from the left button side, then press SAVE button to save

7.1.4 View Operation

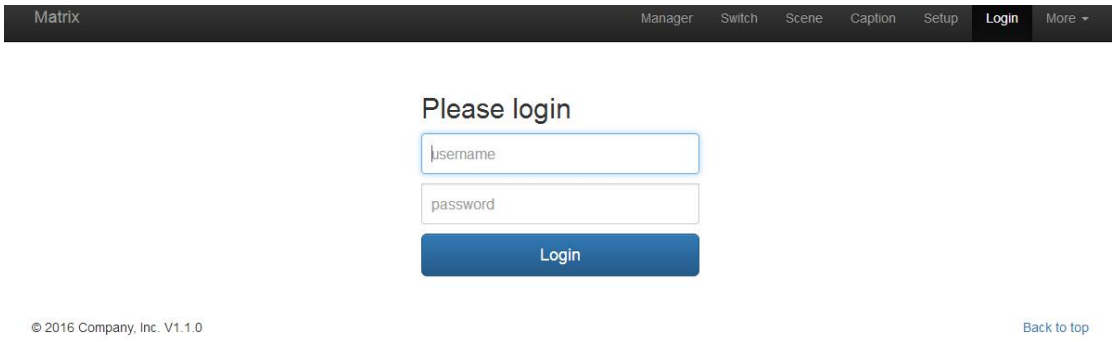
➢ Via MENU button switch to VIEW interface, will display the current switching status

7.2 WEB Control

Mini modular matrix switch support WEB control, the default IP address are 192.168.0.80 and 192.168.1.80. And the LAN1 is 192.168.0.80, LAN2: 192.168.1.80

7.2.1 Login Operation

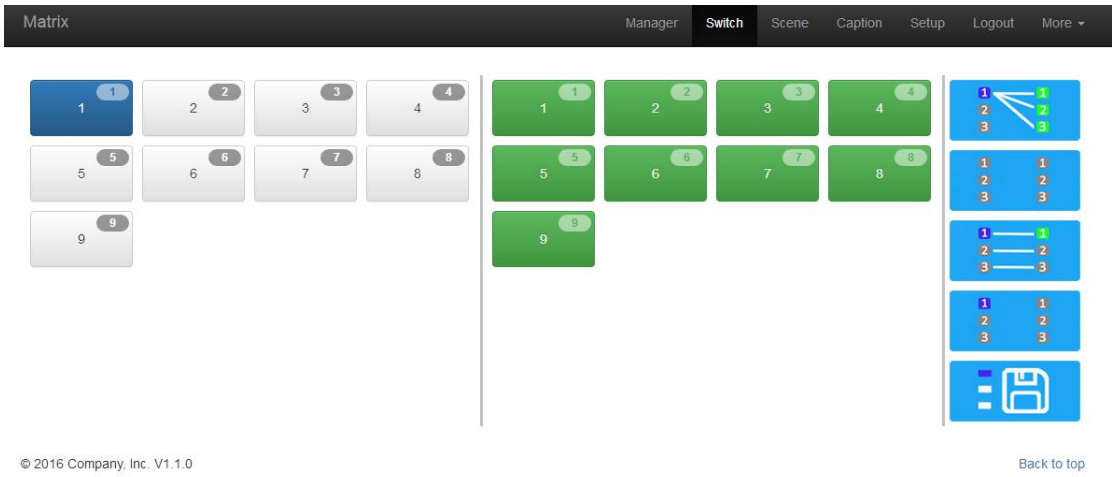
Accordingly to connected LAN port, enter the corresponding IP address, if using the LAN1, then enter 192.168.0.80 in the browse(Recommend with Google browse) as below:



Note: The default user name and password is same: admin, click login after entering. Please make sure the control PC is at the same IP segment.

7.2.2 Switch

Switch interface:



The left side of the long string is input area: Mini99 will have 9 buttons, Mini1818 has 18 buttons, Mini3636 will have 36 buttons. The right side is output area, the buttons are the same with input area. And there're 5 buttons: The 1st for 1 to all, 2nd for 1 off to all, 3rd for 1 to 1, 4th for all off, the last one is for scene save and recall. (Change names can be done in Caption interface)

If need to switch 1 input to 1 output: First click the input number, then click the output number

If need to switch 1 input to many outputs: First click input number, then press all the needed output number

If need to switch 1 input to all outputs, first click input number, then click the 1st button at the right side

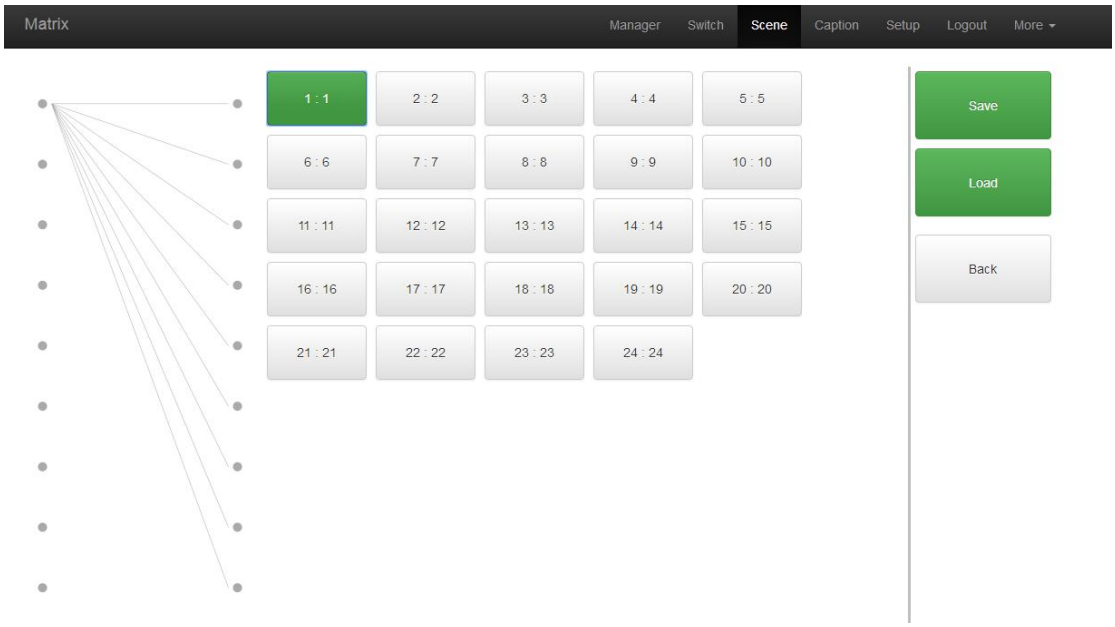
If need to switch off the input, first click the input number, then click the 2nd button at the right side

If need to switch 1 to 1, 2 to 2...., then just click the 3rd button at right side directly

If want to switch off all the input and output, then just click the 4th button at the right side directly

7.2.3 Scene

Scene Interface:



There're 24 scenes in the middle, can view the current switching status from left side, the right side are the Save, Load, Back buttons. (All scenes can be named in Caption interface)

If want to save the current switching status as the scene: Select the wanted scenes number(1~24), then click Save to save.

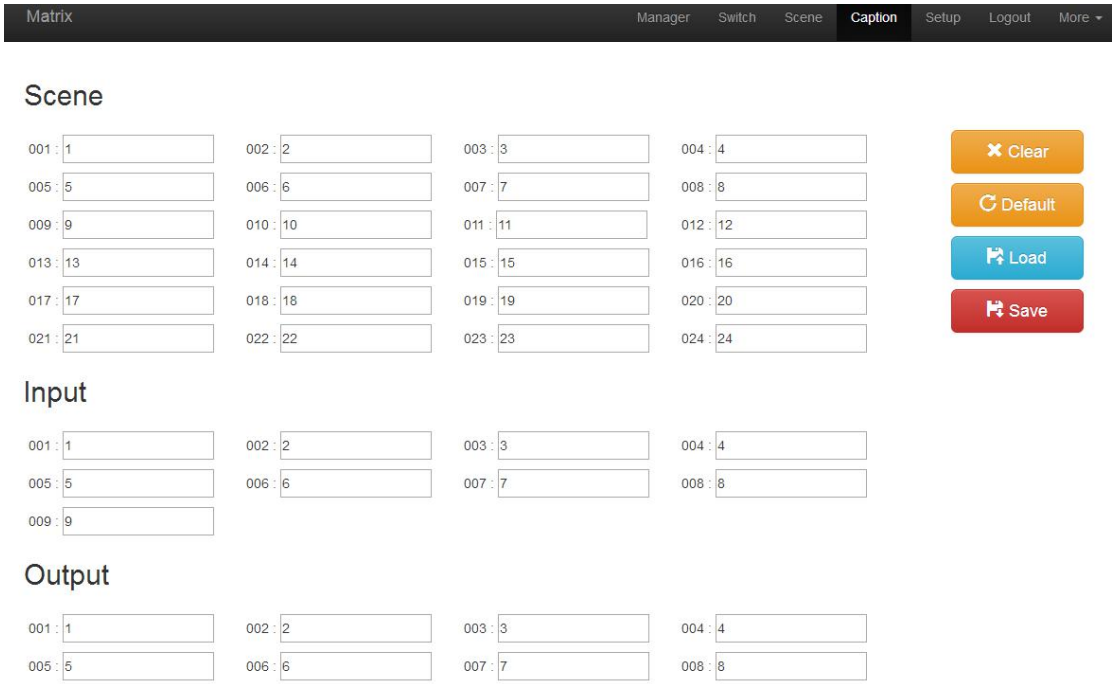
If want to recall the saved scenes: Select the wanted scene number(1~24), then click Load button to recall

Click Back button to return back the Switch interface.

7.2.4 Caption:

For changing the input, output and scenes' name

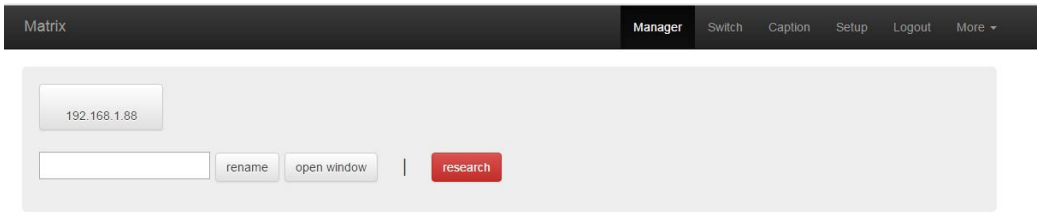
There are 3 parts on the left side, the first one is for Scene, middle one is for Input and the last one is for the Output. And there are 4 buttons on the right side, Clear for clearing all the names, Default for returning back to default status, Load is for syncing, click Load can recall all the saved names on the matrix, Save is for saving the current name changes to the matrix



7.2.5 Manager

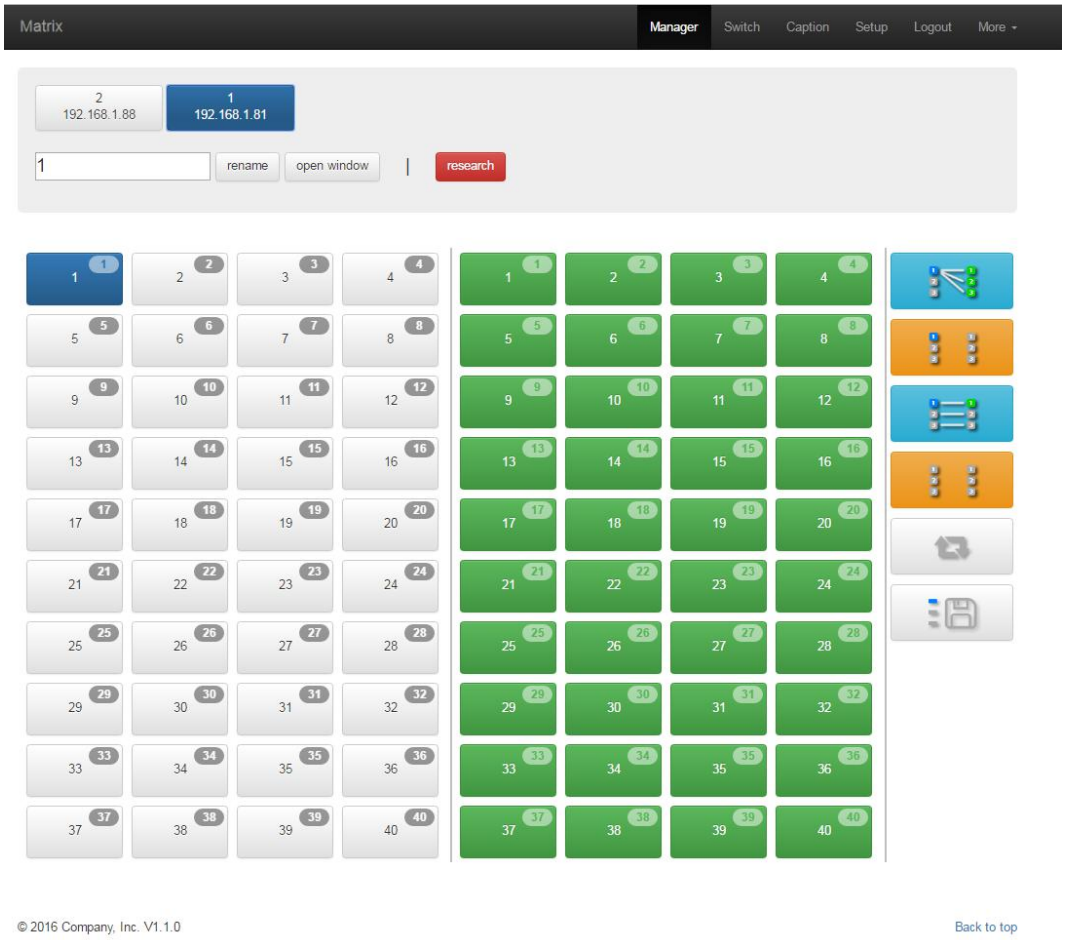
Centralization Manage interface:

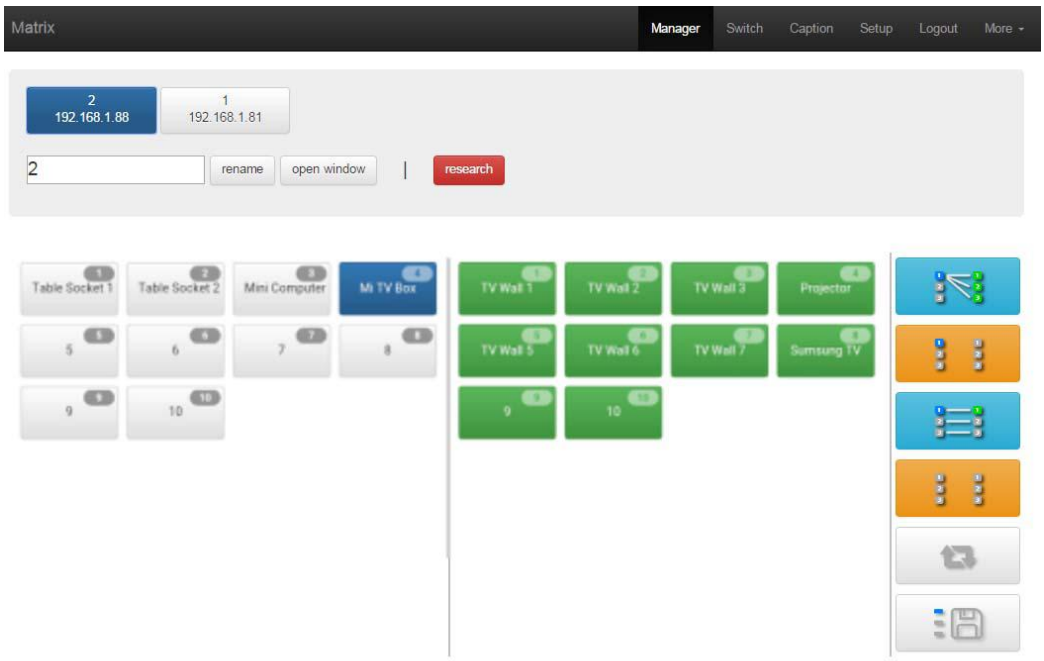
Click Manager can realize many matrices centralized controlling



At the same local area network, it can control one to many matrices with same segment but different IP address, the most can control 254 units matrices. Such as the following IP are 192.168.1.81 are 192.168.1.88 two different matrices， and 192.168.1.81 is 40x40 matrix, and 192.168.1.88 is 10x10 matrix. Click research to find and control all the matrices. Also support rename the matrices' name, such as to change 192.168.1.81 as 1, then click 192.168.1.81 and enter number 1 and click rename. And rename 192.168.1.88 as 2. Check as following interface:

Also can click IP address to control at this interface:


Matrix
Manager
Switch
Caption
Setup
Logout
More
2
192.168.1.88
1
192.168.1.81
1
rename
open window
research
© 2016 Company, Inc. V1.1.0
Back to top

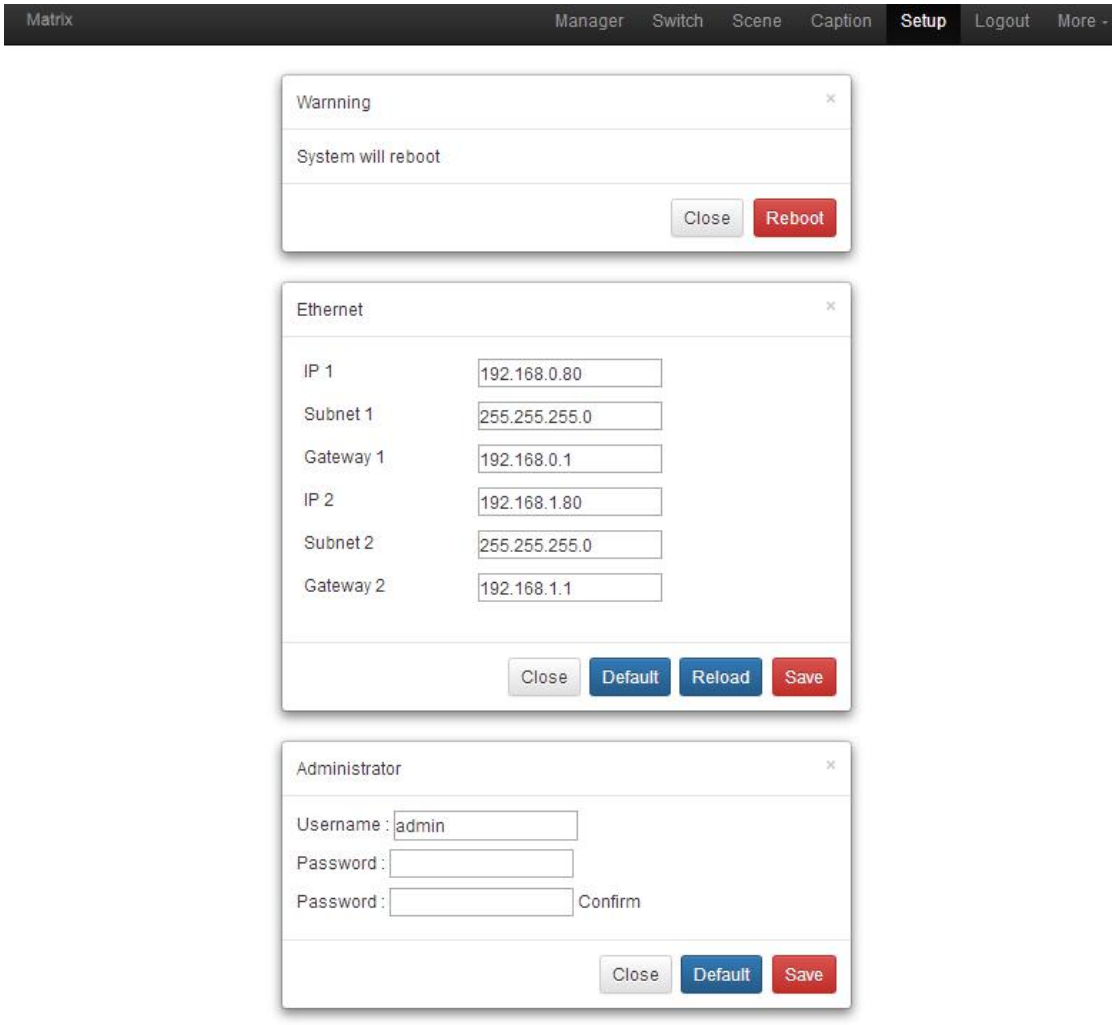

Matrix
Manager
Switch
Caption
Setup
Logout
More
2
192.168.1.88
1
192.168.1.81
2
rename
open window
research
Table Socket 1
Table Socket 2
Mini Computer
Mi TV Box
TV Wall 1
TV Wall 2
TV Wall 3
Projector
TV Wall 5
TV Wall 6
TV Wall 7
Samsung TV

7.2.6 Setup

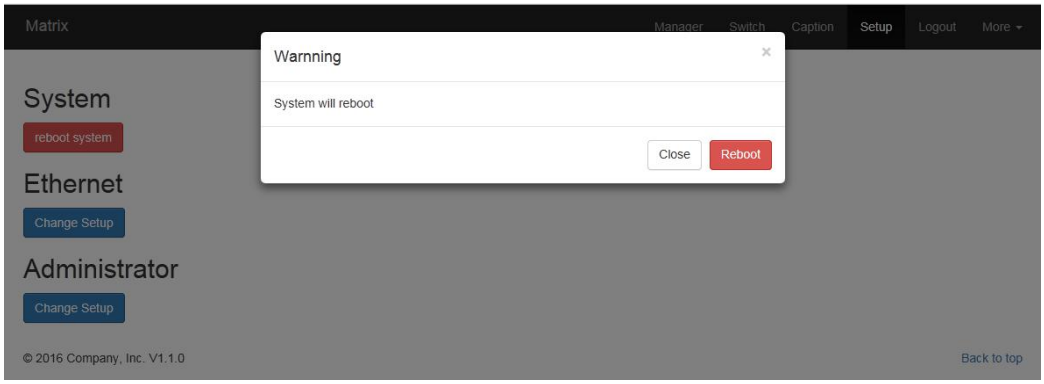
Set up interface:

There are 3 areas under this interface, the first one is Reboot function: for modifying the matrix configuration (IP address, Login password), the middle one is for changing IP address, users can change the control IP address accordingly (Note: 2 IP address can't at the same segment), the last area is for users to change user name and password.

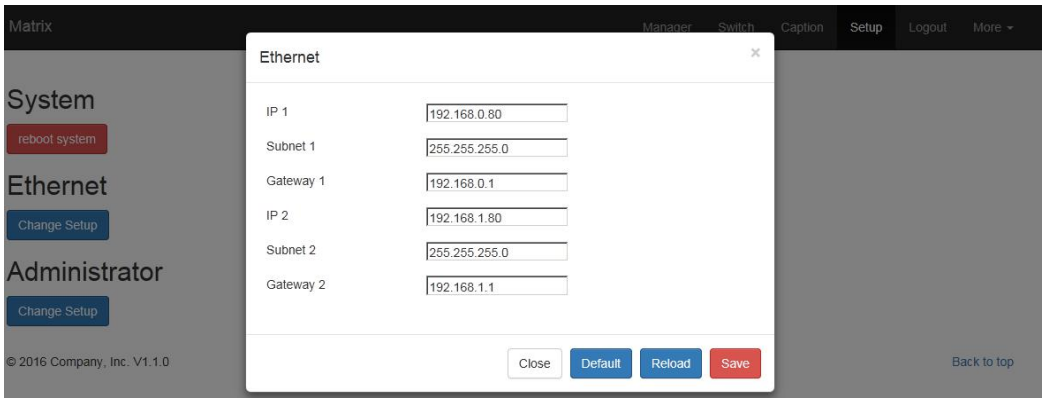
Click Setup to reboot matrix, IP address/ User name modifications as so on setting up, see as below:



Click the red button "reboot system" under System interface will pop-up below interface, click Reboot to restart, click Close to close.

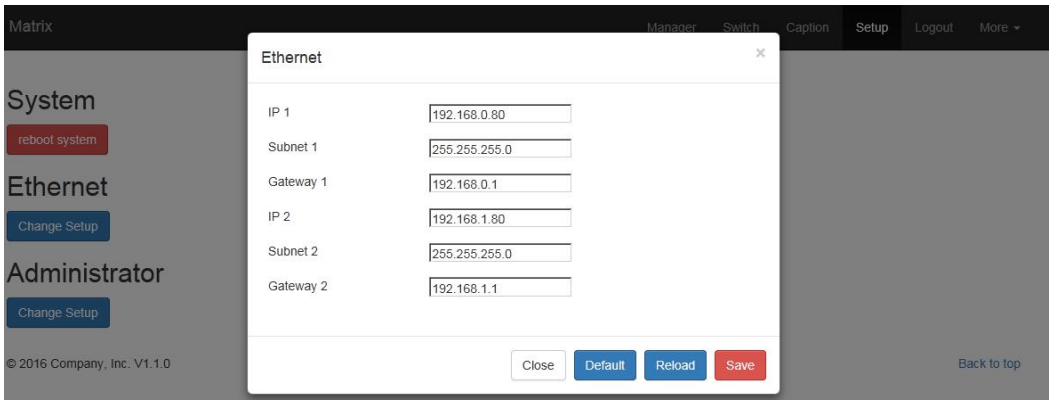


Click the blue button “change Setup” under Ethernet interface will pop-up a window for changing IP address:

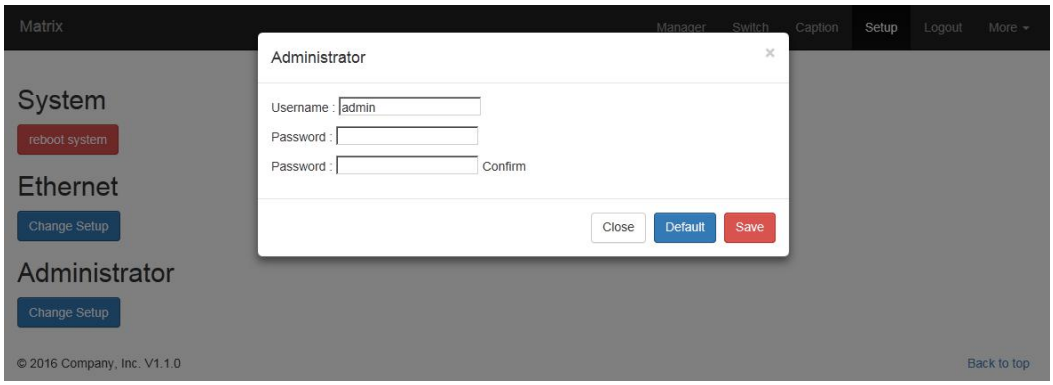


Default for back to factory default mode, Reload for renaming, Save for saving the changes. After changing IP address need to click the above red button “reboot system” to restart, new IP address will be active after reboot.

Click Default back to factory default setting, click Save to save the changes, the default IP are: IP1: 192.168.0.80, IP2: 192.168.1.80. As below:

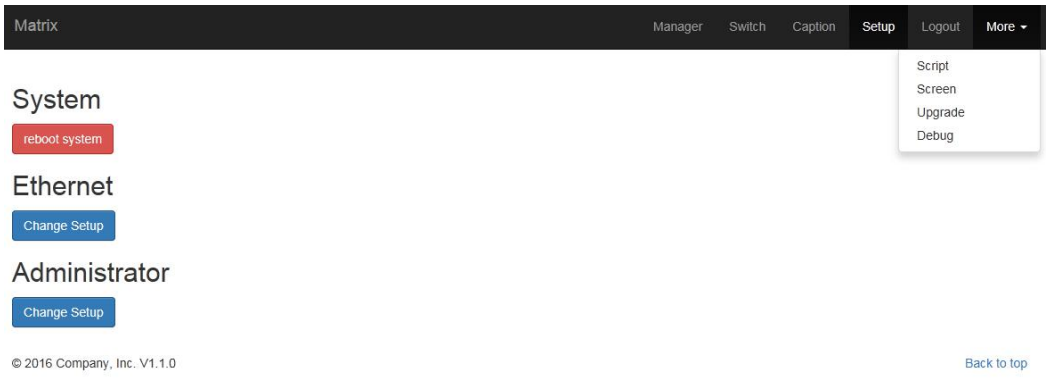


Click the blue button “Change Setup” under Administrator interface, users can change the user name and password, only need to click Save to save.



7.2.7 More:

Upgrading: Click Upgrade can realize new software upgrading

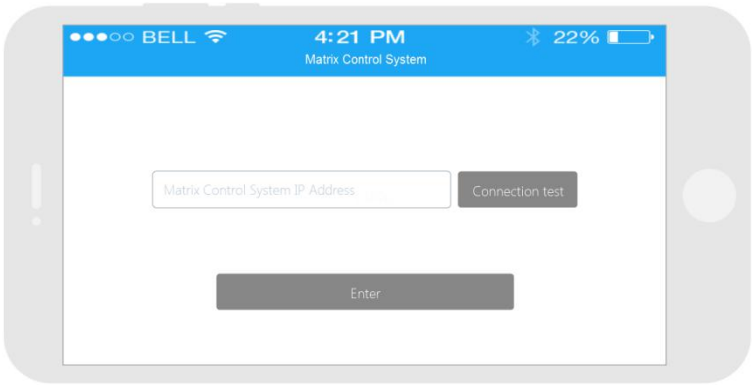


7.3 APP Control

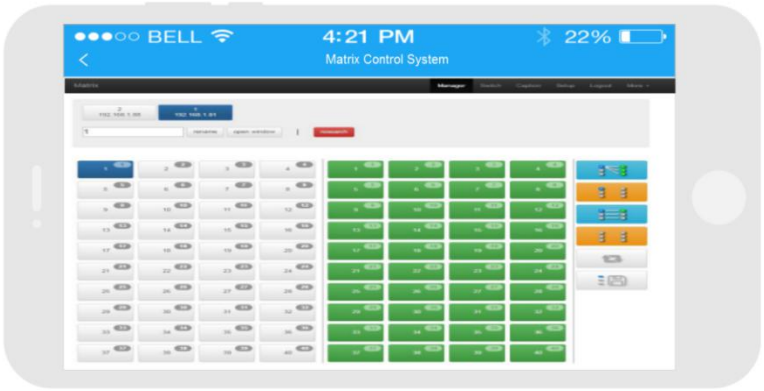
All the Mini modular matrix series can support IOS and Android App control, users only need to be well-connected the matrix with the wifi router or local network. Download the APP from the application store. The steps and interfaces show as below:

Step 1: Make sure the matrix well connected with the router or local network, and open the APP:

Step 2: Enter the IP address of the matrix:



Step 3: After log in successfully, users can switch, change the inputs and outputs name directly.



7.4 Central Control Commands

RS232 communication protocol and control commands:

Using straight-through connection(USB-RS232 can be used directly to control)

Communication protocol: Baud rate: 115200, data bit: 8, stop bit: 1, Check bit: None

Type	Control command	Function description
Command	[x1]All.	Switch [x1] input to all the outputs
	All[1].	Switch all the channels to be one to one. Eg.1->1，
	[x1]X[x2].	Switch [x1] input to [x2] output
	[x1]X[x2]&[x3]&[x4].	Switch [x1] input to [x2], [x3], [x4]
	Save[Y].	Save current status to [Y], [Y] can be number1~9
	Recall[Y].	Recall the saved [Y] scene

	BeepON.	Buzzer on
	BeepOFF.	Buzzer off

Note:

- [x1], [x2], [x3], [x4] are the input/ output number, it depends on the controlling matrix. Such as the controlling matrix is Mini99(9x9), then the effective range is 1~9, if beyond this range will be treated as error commands, and the character "[" and "]" aren't the sending characters
- Every commands ending have a "." and this character can't be missing. And all the character has be under English input method.
- The letter can be capital or small letter.
- Switch success will return as OK, failed will return as ERR.
- Partial commands controlling example:

  Switch input [x1] to all outputs: [x1]All.

  Eg. Switch input 3 to all outputs: 3All.

  Switch as one to one: All[1].

  Eg. After sending commands, the current switching status will be 1->1, 2->2,……

  Video switch commands: [x1]X[x2].

  Eg. Switch input 3 to output 5: 3X5.

  Switch input 3 to output 5, 6, 7, 8: 3X5&6&7&8.

  Save current switching status Y: Save[Y].

  Eg. Save the current switching status to scene 7: Save7.

  Recall the saved scene Y: Recall[Y].

  Eg. Recall the saved scene 7 to use as switching status: Recall7.

  Buzzer on and off:

  Buzzer on can hear a beep sound while switching: BeepON.

  Buzzer off can't hear the beep sound while switching: BeepOFF.

8. Trouble Shooting and Attention

No signal on the display?

- Make sure all the power code well connected

- Check the display switcher and make sure it’ s in good condition
- Make sure the the DVI cable between the device and display are short than 7 meters
- Reconnect the DVI cable and restart the system
- Make sure the signal sources are on
- Check the cables between the devices and displays are connected correctly.
- Dial the switcher 7 to 1, then dial the switcher1,2 and choose the corresponding inputs.
- Make sure the resolution less than WUXGA(1920*1200)/ 60HZ
- Make sure the display can support the output resolution.

9. After Sales

9.1 Warranty Information

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

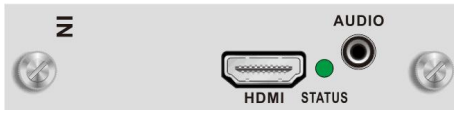
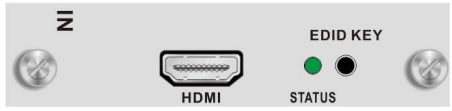
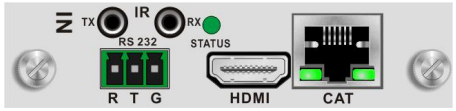
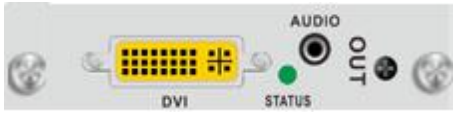
The replacement product could be new or repaired.

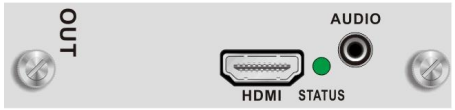
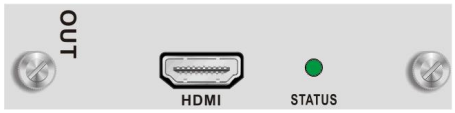
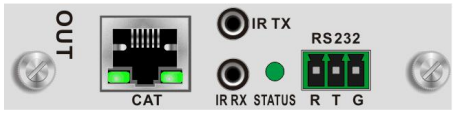
Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

9.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage

Attachment A: Mini Modular Matrix input/output cards

INPUT	Universal		Support DVI/HDMI/VGA/YPBPR/CVBS+LR Signal auto adaption, 3.5mm audio embedds Seamless switching
	SDI		Support 3G/HD/SD-SDI+LR 1 SDI loop out, 3.5mm audio embedds Auto adapt with 3G/HD/SD speed, seamless switching
	HDBaseT		Can be 70M/100M RS232 and be-directional IR Power over Cable, Seamless switching
	Fiber Optic		1 core Fiber Optic input, work with universal Fiber Optic extender, distance can reach 10km
	4K60 HDMI		Support 4K60Hz 4:4:4 HDMI2.0 Bandwidth reach 18G Compatible with HDCP2.2, seamless switching
	4K30 HDMI		Support 4K30Hz , HDCP1.4 EDID read function Embedded equilibrium
	4K30 HDBaseT		HDBaseT input and HDMI loop out POC, RS232/IR Distance can up to 70m/100m
OUTPUT	Universal		Support DVI/HDMI/VGA/YPBPR/CVBS+LR Signal auto adaption, 3.5mm audio de-embedds Seamless switching
	SDI		Support 3G/HD/SD-SDI+LR 2 SDI outputs, 3.5mm audio de-embedds Auto adapt with 3G/HD/SD speed, seamless switching

	HDBaseT		Can be 70M/100M RS232 and be-directional IR Power over Cable, Seamless switching
	Fiber Optic		1 core Fiber Optic output, work with universal Fiber Optic extender, distance can reach 10km
	4K60 HDMI		Support 4K60Hz 4:4:4 HDMI2.0 Bandwidth reach 18G Compatible with HDCP2.2, seamless switching
	4K30 HDMI		Support 4K30Hz , HDCP1.4 EDID read function Embedded equilibrium
	4K30 HDBaseT		HDBaseT output POC, RS232/IR Distance can up to 70m/100m

Note: All the above cards can be used on Mini99, Mini1818 and Mini3636. For the Universal, SDI, HDBaseT, Fiber Optic Cards have the DIP switch(8-pin), through the DIP switch can realize following function:

Input Cards:

D1, D2	Input Selection (D7 as 0 is effective)	D1	D2		
		0	0	CVBS input	
		0	1	YPBPR input	
		1	0	VGA input	
		1	1	DVI input	
D3, D4, D5	Internal Resolution adjustment	D3	D4	D5	
		0	0	0	1024*768
		0	0	1	1360*768
		0	1	0	1920*1200
		0	1	1	720P/60

		1 0 0 null 1 0 1 null 1 1 0 1080P/50 1 1 1 1080P/60
D6	Audio selection	0: Force audio via 3.5mm input 1: Self-adaption (Audio from HDMI input while it’s HDMI signal)
D7	Auto identification	0: Auto-identification off (Depend on the D1 and D2) 1: Auto-identification on
D8	IR Switch	0: IR OFF 1: IR ON

Output Cards:

D1	Color Space Selection	0: RGB color space output 1: YUV Color space output
D2, D3, D4, D5, D6	Output Resolution Selection	D2 D3 D4 D5 D6 0 0 0 0 0 1024*768@60 0 0 0 0 1 800*600@60 0 0 0 1 0 1280*800@60 0 0 0 1 1 1280*1024@60 0 0 1 0 0 1360*768@60 0 0 1 0 1 1366*768@60 0 0 1 1 0 1400*1050@60 0 0 1 1 1 1440*900@60 0 1 0 0 0 1680*1050@60 0 1 0 0 1 1600*1200@60 0 1 0 1 0 1920*1200@60 0 1 0 1 1 1600*1200@60 0 1 1 0 0 1680*1050@60 0 1 1 0 1 1400*900@75

		0	1	1	1	0	640*480@75
		0	1	1	1	1	800*600@75
		1	0	0	0	0	480I@60
		1	0	0	0	1	576I@50
		1	0	0	1	0	480P@60
		1	0	0	1	1	576P@50
		1	0	1	0	0	1280*720@24
		1	0	1	0	1	1280*720@25
		1	0	1	1	0	1280*720@30
		1	0	1	1	1	1280*720@50
		1	1	0	0	0	1280*720@60
		1	1	0	0	1	1080I@50
		1	1	0	1	0	1080I@60
		1	1	0	1	1	1080P@24
		1	1	1	0	0	1080P@25
		1	1	1	0	1	1080P@30
		1	1	1	1	0	1080P@50
		1	1	1	1	1	1080P@60
D7	Image inversion	0: Image rolling 180 degree 1: Image showing normal					
D8	IR Switch	0: IR OFF 1: IR ON					

Attachment B: Matching Extenders

B1: HDBaseT Extender

HDBaseT extender is using the HDBaseT technology, support 1080p60Hz/ 4K30Hz transmission over single cat6 without compression and reach 70 meters, except 5 play features, it also can support the 3.5mm audio embedded and de-embedded, EDID Management. HDBaseT technology provides more flexibility and compatibility, widely used in residential and commercial area.

(DVI HDBaseT Extender)

(HDMI HDBaseT Extender)

(Universal HDBaseT Extender)

(Table, Floor and Wall plate Transmitter)

HDBaseT Extender Data sheet

Mode	DVI-70TR	HDMI-70TR	MAV-70TR	TABLE/GROUND/WALL-70T

Description	Over single Cat 6 transmit DVI/IR/RS232	Over single Cat 6 transmit HDMII/IR/RS232	Over single Cat 6 transmit HDMI/DVI/VGA/YPBPR/CVBS/IR/RS232	Over single Cat 6 transmit VGA/HDMI/ADUIO
Distance (CAT6)	70M	70M (1080p60Hz) 35M (4K30Hz)	70M	70M
Max Resolution	1080p60Hz	4K30Hz	1080p60Hz	1080p60Hz
EDID	Support EDID Management	Support EDID Management	With internal EDID	With internal EDID
Protocol	DVI1.0	HDMI1.4a	DVI1.0, HDMI1.3a	HDMI1.3a
Audio	Support 3.5mm audio embedds and de-embedds, can select from HDMI or external audio		Support 3.5mm audio embedds and de-embedds	Support 3.5mm audio embedds and de-embedds
Power	Support Power over Cable, only need one side to power on			
HDCP	Support HDCP1.2			
Color Space	Support RGB444, YUV444, YUV422 and x.v.Color extension color gamut standard			
Speed	10Gbps			
Warranty	MTBF30000h, 7x24 working			
Dimension	154 × 27 × 96 (mm)			
Weight	340g(Pair)			500g(Table), 450g(Floor), 400g(Wall)
Power	110---260V 50/60Hz AC Input, 12V 1.5A Output			
Work Temp	-10℃ - 50℃			
Storage Temp	-25℃ - 55℃			

B2. Fiber Optic Extender:

Universal Fiber Optic Extender

3GSDI Fiber Optic Extender

MAV(Universal)/3GSDI-10KTR is the newest HDMI/DVI/VGA/YPBPR/CVBS+LR(SD/HD/3G-SDI+LR) 1 core single mode fiber optic extender. With only one single fiber can transmit HDMI/DVI/VGA/YPBPR/CVBS+LR(SD/HD/3G-SDI+LR) to 10km, the maximum distance can up to 80km with different fiber optic modular.

Technical Data Sheet

Mode	MAV-10KTR	3GSDI-10KTR
Description	HDMI/DVI/VGA/YPBPR/CVBS+LR over single fiber cable	SD/HD/3G-SDI+LR over single fiber cable
Input and output	Transmitter: 1*HDMI/DVIVGA/YPBPR/CVBS input, 1*3.5mm Audio input, 1*LC output Receiver: 1*LC outout, 1*HDMI/DVI/VGA/YPBPR/CVBS output and 1*Audio output	Transmitter: 1*SD/HD/3G-SDI+LR input+loop out, 1*Audio input, 1*LC output Receiver: 1*LC input, 2*SD/HD/3G-SDI+LR output, 1*Audio output
Protocol	VESA, HDTV	SMPTE
Resolution	640*480p@60Hz---1920*1200@60Hz(VESA) 480i-1080p60Hz(HDTV)	480i-1080p60Hz(SMPTE)

Power	AC: 110-240V，50/60Hz, DC: 12V2A
Dimension	154mm/144mm/44mm(W/H/D)(Tx and Rx is the same)
Weight	0.8Kg (Tx and Rx is the same)
Work Temp	0℃ - 50℃
Storage Temp	-25℃ - 85℃