



USER MANUAL

WolfPack MINI Card Cage Matrix Switcher

9x9 Card Cage, 18x18 Card Cage and 36x36 Card Cage



Version: V2.0.1



Preface

We are honored for your purchasing of our products. In order 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 taking example from the 9x9 Card Cage, but the 18x18 and 36x36 Card Cages also can reference this user manual.

SAFETY REMINDER



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.



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1. Product Introduction

The WolfPack MINI Modular Matrix Switcher series have 3 models: **9x9 Card Cage**(9x9), **18x18 Card Cage**(18x18) and **36x36 Card Cage**(36x36). All the signal input and output cards using 1-card 1-port, wide range selections of the input and output cards, it provides users the most flexible configuration ability to meet with the real applications. And the 1080P and 4K60 I/O cards can reach any switching, converting, extension, resolution adjustment. Supports seamless or fast switching function(4K30 pass-through cards), electromagnetic protection function, 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 can reach 12.5Gbps, and the main board is using Four core four links processing technology, the switching ability speed can reach 32Gbps. With uncompressed transmission technology 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. Supports 7*24 continuously working and with dual LAN and RS232 backup control, it's convenient for users to control via PC, IOS/Android APP and the 3rd parties central control by the the RS232 control commands.

With the dual RS232 and LAN control, users also can simply set up and control the surrounding equipment, such as the projector, electric curtain and TVs.

This matrix switchers have been widely used in the conferencing, radio&television project, multimedia conferencing hall, large screen display project, television teaching, command control center and so on applications.

2. Product Features

- Modular designing chassis
- 1 channel 1 card, supports DVI-I/ HDMI/ 3GSDI/ HDBaseT/ Fiber to mix input and output
- Support seamless switching with 1080P or 4K60 Cards
- 4-core 4 links processing chipset provides up to 32GBPS signal switching processing ability
- Front buttons with background lights, easier to operate at any time
- Support EDID automatic recognition and compatible with HDCP
- Support 3.5mm audio embedded and de-embedd function
- Support 4K60, HDMI2.0 444 digital HD video signal transmission and seamless switching
- Support 3D image frequency repairing, pixel reread processing function
- Support scaling up/down function via the DIP switch
- Support dual LAN ports backup control and centralization network management function
- Support hot-plug function
- Support auto saving protection and auto recovery function while power cut

3. Technical Datasheet

Model	WolfPack 9x9 Card Cage	WolfPack 18x18 Card Cage	WolfPack 36x36 Card Cage
Description	9x9 modular chassis	18x18 modular chassis	36x36 modular chassis
Input Card	1 Channel 1 Card, support HDMI, DVI, 3GSDI, VGA, YPBPR, CVBS, HDBaseT, Fiber Optic		

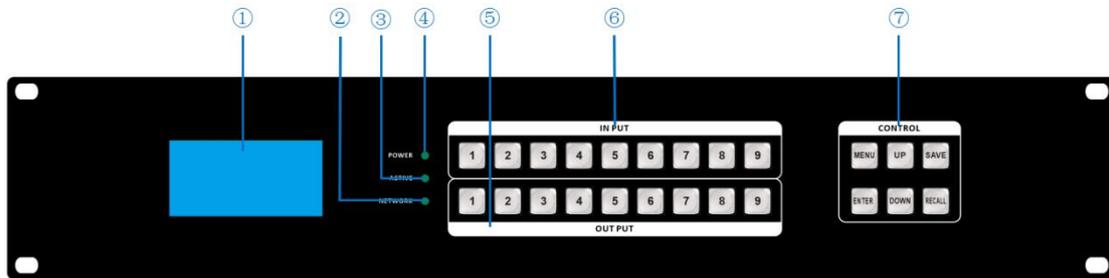
Output Card	1 Channel 1 Card, support HDMI, DVI, 3GSDI, VGA, YPBPR, CVBS, HDBaseT, Fiber Optic		
Protocol	HDMI1.4a/ HDMI2.0, DVI1.0, compatible with HDCP and EDID function		
Color Space	RGB444, YUV444, YUV422, support x.v.Color extension color gamut standard		
Resolution	640x480---1920x1200@60Hz(VESA), 480i---4K30Hz(HDTV), 4K60Hz		
Data Speed	12.5Gbps		
Transmission distance	220ft/330ft(Cat6), 32808ft(Single-mode), 50ft(Digital cable), 55ft(Analog cable)		
Control Methods	Front buttons, IOS/Android App, RS232, WEB GUI		
Dimension	18.98*15.35*3.46 inch (2U)	18.98*15.35*7 inch (4U)	18.98*15.35*13.98 inch (8U)
Weight	13lb/ 6KG(No cards)	28lb/12.5KG(No cards)	55lb/25KG(No cards)
Consumption	17W(No cards)	21W(No cards)	30W(No cards)
Power Supply	AC 110V-240V 50/60HZ		
Working Temp	14°F~122°F (-10°C~ 50°C)		
Storage Temp	-4°F~130°F (-25°C~55°C)		

4. Packing Details

- Matrix switch chassis with customized configuration1 unit
- Power cord1 pcs
- User manual1 pcs

5. Panel Diagram

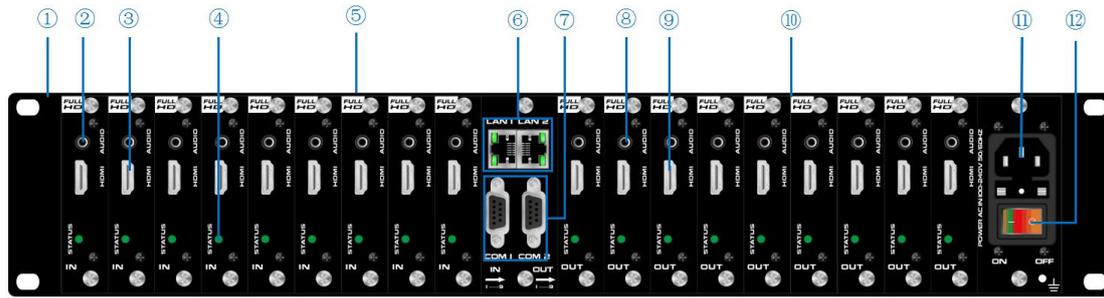
Front Panel



No.	Name	Description	
①	LCD Screen	Operation information real-time Display	
②	POWER	light up after power on, it will light off after power off	
③	ACTIVE	Flashing while using the buttons/ WEB switching successfully	
④	NETWORK	Flashing while using the WEB control operation	
⑤	OUTPUT	Input buttons with background light, from 1~9 input buttons	
⑥	INPUT	Output buttons with background light, from 1~9 output buttons	
⑦	CONTROL	MENU	Select between View, Switch, Scene Save/ Recall and Setup
		UP	Upward and short cut button for switching to ALL outputs
		SAVE	For saving the scene or setup
		ENTER	Enter button
		DOWN	Downward and short cut button for canceling to ALL outputs

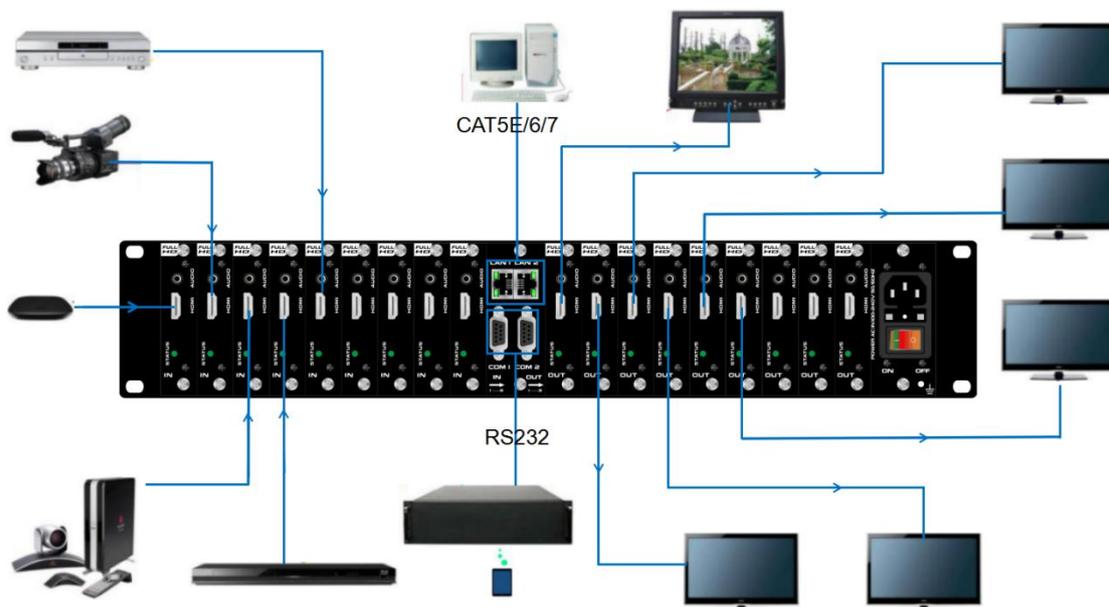
	RECALL	For recalling the saved scene
--	--------	-------------------------------

Rear Panel:



No.	Name	Description
①	Rack ear	For installing on the 19 inch Rack Cabinet
②	3.5mm audio	External 3.5mm audio embedded
③	HDMI Port	HDMI input card
④	Status Indicator	Power on indicator
⑤	Input slots	Supports DVI/HDMI/VGA/CVBS/YpPr/FIBER/HDBaseT input
⑥	LAN Ports	LAN1 Control port 2, the default IP address is 192.168.0.80 LAN2 Control port 1, the default IP address is 192.168.1.80
⑦	RS232 Ports	Dual RS232 ports for 3 rd parties control
⑧	3.5mm audio	External 3.5mm audio de-embedded
⑨	HDMI Port	HDMI output card
⑩	Input slots	Supports DVI/HDMI/VGA/CVBS/YpPr/FIBER/HDBaseT output
⑪	Power Port	AC 220V-240V 50/60Hz
⑫	Power Switch	Power ON/OFF switch with light

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 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 40 scenes, after switching successfully in the SWITCH interface, press MENU button and switch to SCENE interface.
- Enter the wanted scene save number(1~40), 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 scenes, the recall scenes number will depend on the input button numbers.

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

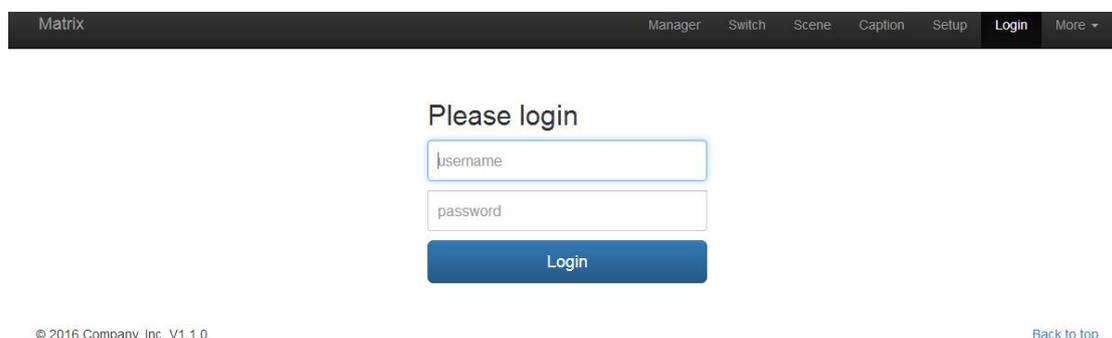
- Via MENU button switch to VIEW interface, will display the current switching status

7.2 WEB Control

The default IP address are 192.168.0.80(LAN1) and 192.168.1.80(LAN2).

7.2.1 Login Operation

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

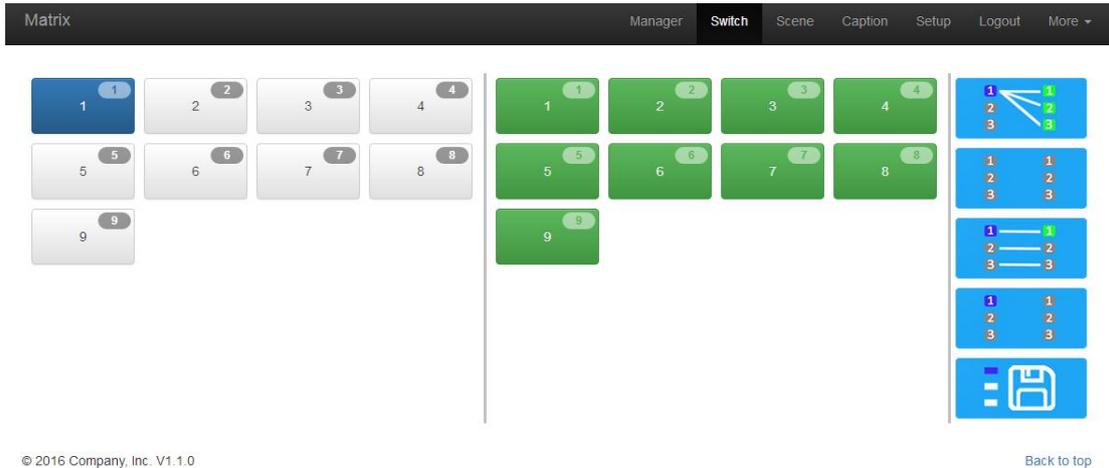


Note: The default user name and password is same: admin, click login after entering. Please make sure the control PC is at the same IP segment.



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 are 5 short cut 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:



Matrix Manager Switch **Scene** Caption Setup Logout More ▾

1 : 1	2 : 2	3 : 3	4 : 4	5 : 5
6 : 6	7 : 7	8 : 8	9 : 9	10 : 10
11 : 11	12 : 12	13 : 13	14 : 14	15 : 15
16 : 16	17 : 17	18 : 18	19 : 19	20 : 20
21 : 21	22 : 22	23 : 23	24 : 24	25 : 25
26 : 26	27 : 27	28 : 28	29 : 29	30 : 30
31 : 31	32 : 32	33 : 33	34 : 34	35 : 35
36 : 36	37 : 37	38 : 38	39 : 39	40 : 40

Save
Load
Back

There are 40 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(1~40), then click Save to save.

If want to recall the saved scenes: Select the wanted scene number(1~40), 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



Scene

001 : <input type="text" value="1"/>	002 : <input type="text" value="2"/>	003 : <input type="text" value="3"/>	004 : <input type="text" value="4"/>
005 : <input type="text" value="5"/>	006 : <input type="text" value="6"/>	007 : <input type="text" value="7"/>	008 : <input type="text" value="8"/>
009 : <input type="text" value="9"/>	010 : <input type="text" value="10"/>	011 : <input type="text" value="11"/>	012 : <input type="text" value="12"/>
013 : <input type="text" value="13"/>	014 : <input type="text" value="14"/>	015 : <input type="text" value="15"/>	016 : <input type="text" value="16"/>
017 : <input type="text" value="17"/>	018 : <input type="text" value="18"/>	019 : <input type="text" value="19"/>	020 : <input type="text" value="20"/>
021 : <input type="text" value="21"/>	022 : <input type="text" value="22"/>	023 : <input type="text" value="23"/>	024 : <input type="text" value="24"/>

-
-
-
-

Input

001 : <input type="text" value="1"/>	002 : <input type="text" value="2"/>	003 : <input type="text" value="3"/>	004 : <input type="text" value="4"/>
005 : <input type="text" value="5"/>	006 : <input type="text" value="6"/>	007 : <input type="text" value="7"/>	008 : <input type="text" value="8"/>
009 : <input type="text" value="9"/>			

Output

001 : <input type="text" value="1"/>	002 : <input type="text" value="2"/>	003 : <input type="text" value="3"/>	004 : <input type="text" value="4"/>
005 : <input type="text" value="5"/>	006 : <input type="text" value="6"/>	007 : <input type="text" value="7"/>	008 : <input type="text" value="8"/>

7.2.5 Manager

Centralization Manage interface:

Click Manager can realize many matrices centralized controlling

Matrix **Manager** Switch Caption Setup Logout More ▾

192.168.1.88

|

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:



2 192.168.1.88 | 1 192.168.1.81

1 rename open window |

1	2	3	4	1	2	3	4	
5	6	7	8	5	6	7	8	
9	10	11	12	9	10	11	12	
13	14	15	16	13	14	15	16	
17	18	19	20	17	18	19	20	
21	22	23	24	21	22	23	24	
25	26	27	28	25	26	27	28	
29	30	31	32	29	30	31	32	
33	34	35	36	33	34	35	36	
37	38	39	40	37	38	39	40	

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2 192.168.1.88 | 1 192.168.1.81

2 rename open window |

Table Socket 1	Table Socket 2	Mini Computer	Mi TV Box	TV Wall 1	TV Wall 2	TV Wall 3	Projector	
5	6	7	8	TV Wall 5	TV Wall 6	TV Wall 7	Samsung TV	
9	10			9	10			

7.2.6 Setup



Set up interface:

System Reboot: for modifying the matrix configuration(IP address, Login password)

Ethernet: for changing IP address accordingly

Administrator: For changing the Login user name and password

Multifunction Buttons: For controlling the surrounding equipment

Browser address bar: Not secure | 192.168.0.80/setup.php

Navigation menu: Matrix | Manager | Switch | Scene | Caption | **Setup** | Logout | More

System window: System will reboot. Buttons: Close, Reboot.

Ethernet window: IP 1 (192.168.0.80), Subnet 1 (255.255.255.0), Gateway 1 (192.168.0.1), IP 2 (192.168.1.80), Subnet 2 (255.255.255.0), Gateway 2 (192.168.1.1). Buttons: Close, Default, Reload, Save.

Administrator window: Username: admin, Password: [], Password: [] Confirm. Buttons: Close, Default, Save.

Annotation: Step 1: Click Setup (with arrow pointing to the Setup menu item)

Browser address bar: Not secure | 192.168.0.80/setup.php

Administrator window (partial): Username: admin, Password: [], Password: [] Confirm. Buttons: Close, Default, Save.

Multifunction Buttons window:

01: Button 1	A53E7B01AAAAAA0102AAAAF0	1	2	9600
02: Button 2		1	2	9600
03: Button 3		1	2	9600
04: Button 4		1	2	9600
05: Button 5		1	2	9600
06: Button 6		1	2	9600
07: Button 7		1	2	9600
08: Button 8		1	2	9600
09: Button 9		1	2	9600
10: Button 10		1	2	9600
11: Button 11		1	2	9600
12: Button 12		1	2	9600
13: Button 13		1	2	9600
14: Button 14		1	2	9600
15: Button 15		1	2	9600
16: Button 16		1	2	9600

Buttons: Close, Default, Reload, Save

Multifunction buttons set up, total we have 16 multifunction buttons at present. We can rename



the buttons, Type the HEX code for each button, and baud rate select. Then click "Save".

Rename the buttons here

COM port select and baud rate input

Multifunction Buttons

01: Switching	A53E7B01AAAAA0102AAAF0	<input type="radio"/> 1 <input checked="" type="radio"/> 2	115200
02: Projector OFF		<input type="radio"/> 1 <input checked="" type="radio"/> 2	115200
03: Curtain Down		<input type="radio"/> 1 <input type="radio"/> 2	9600
04: Beep OFF	426565704f46462e	<input type="radio"/> 1 <input type="radio"/> 2	9600
05: Button 5		<input type="radio"/> 1 <input type="radio"/> 2	9600
06: Button 6		<input type="radio"/> 1 <input type="radio"/> 2	9600
07: Button 7		<input type="radio"/> 1 <input type="radio"/> 2	9600
08: Button 8		<input type="radio"/> 1 <input type="radio"/> 2	9600
09: Button 9		<input type="radio"/> 1 <input type="radio"/> 2	9600
10: Button 10		<input type="radio"/> 1 <input type="radio"/> 2	9600
11: Button 11		<input type="radio"/> 1 <input type="radio"/> 2	9600
12: Button 12		<input type="radio"/> 1 <input type="radio"/> 2	9600
13: Button 13		<input type="radio"/> 1 <input type="radio"/> 2	9600
14: Button 14		<input type="radio"/> 1 <input type="radio"/> 2	9600
15: Button 15		<input type="radio"/> 1 <input type="radio"/> 2	9600
16: Button 16		<input type="radio"/> 1 <input type="radio"/> 2	9600

Close Default Reload Save

Type the HEX Code here

Click to save settings

Matrix Manager **Switch** Scene Caption Setup Logout More

2018-08-07 11:43:29 > send 1,9600,426565704f46462e
2018-08-07 11:43:29 > load 4

Switching Projector OFF Curtain Down Beep OFF Button 5 Button 6 Button 7 Button 8
Button 9 Button 10 Button 11 Button 12 Button 13 Button 14 Button 15 Button 16

7.2.7 More:

Upgrading: Click Upgrade can realize new software upgrading



Matrix Manager Switch Caption **Setup** Logout More ▾

System
[reboot system](#)

Ethernet
[Change Setup](#)

Administrator
[Change Setup](#)

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[Script](#)
[Screen](#)
[Upgrade](#)
[Debug](#)

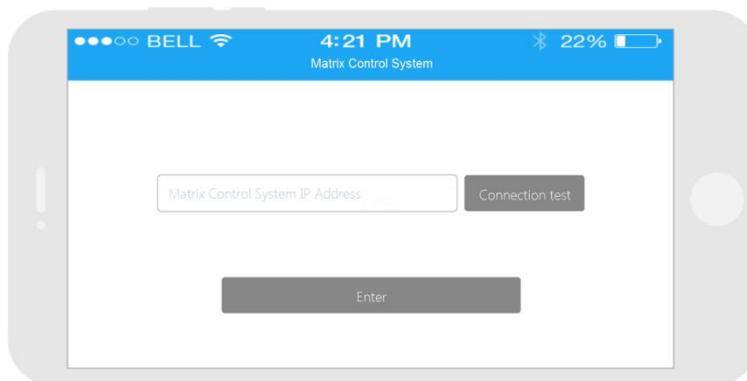
7.3 APP Control

It also can support IOS and Android APP control, users only need to 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:

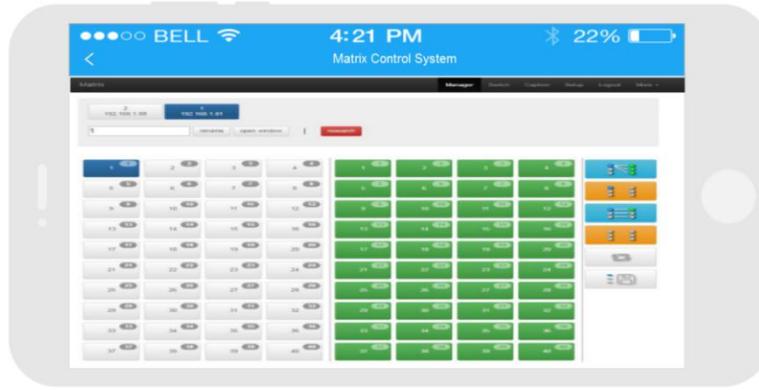
Step 1: Make sure the matrix well connected with the router or local network, and open the APP:



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 cable with 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

Commands	Explanation	Function description
YAll.	Y=1,2,3,4.....	Switch Input Y to all the outputs Eg. "1 ALL ." means switch input 1 to all outputs
All1.	One to one	Switch all the channels to be one to one. Eg.1->1, 2->2, 3->3.....
YXZ.	Y=1,2,3,4..... Z=1,2,3,4.....	Switch Input Y to Output Z Eg. "1 X2 ." means switch Input 1 to output 2
YXZ&Q&W.	Y=1,2,3,4..... Z=1,2,3,4..... Q=1,2,3,4..... W=1,2,3,4.....	Switch Input Y to Output Z, Q, W Eg. "1 X2&3&4 ." means switch Input 1 to Output 2, 3, 4
SaveY.	Y=1,2,3,4.....	Save current status to scene Y Eg. "Save 2 ." means saving current status to Scene 2
RecallY.	Y=1,2,3,4.....	Recall the saved scene Y Eg. "Recall 2 ." means recall the saved Scene 2
BeepON.	Beep sound	Buzzer on
BeepOFF.		Buzzer off
Y?.	Y=1,2,3,4.....	Check the Input Y to outputs switching status Eg. "1 ? ." means to check Input 1 switching status

Note:

- Every command ends with a period "." and it can't be missing.
- The letter can be capital or small letter.
- Switch success will return as "OK", and failed will return as "ERR".

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

The Company warrants that the process and materials of the product are not defective under normal use and service for 3 (3) years following the date of purchase from the Company or its authorized distributors.

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:

Input&output cards for the 9x9 Card Cage, 18x18 Card Cage and 36x36 Card Cage

Input Cards(Don't recommend mixing using the 1080P, 4K60 and 4K30 cards on one chassis)		
1080P Seamless Switching Cards		
MAV		Support HDMI/DVI/VGA/YPBPR/CVBS+LR input Support HDCP, 1080P60 Seamless switching
HDMI		Support HDMI input HDCP, 1080P60 with seamless switching Seamless switching



SDI		Supports SD/HD/3G-SDI input and one loop out Supports 1080p60 Seamless switching
HDBaseT		Supports HDBaseT input Distance up to 220/330ft at 1080P60 with Cat6 Seamless switching
4K60 Seamless Switching Cards		
4K60 HDMI2.0		Supports 4K60 HDMI2.0 input Supports HDCP2.2 Supports 3.5mm audio embedded Seamless switching
4K60 HDBaseT		Support HDBaseT input with one HDMI loop out Distance up to 120/220ft at 4K60 Work with 4K60 40M TX
4K60 Fiber		Supports LC connector SM fiber input Distance up to 6561ft over signal model Fiber Work with the 4K60 Fiber Optic Tx
4K30 Pass-through Cards		
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 110ft/220ft at 4K30
Output Cards(Don't recommend mixing using the 1080P, 4K60 and 4K30 cards on one chassis)		
1080P Seamless Switching Cards		
MAV		Support HDMI/DVI/VGA/YPBPR/CVBS+LR input Support HDCP, 1080P60 Seamless switching
HDMI		Support HDMI input HDCP, 1080P60 with seamless switching Seamless switching
HDMI-WALL		Support HDMI output, Seamless switching Support resolution adjustment Supports TV Wall function
SDI		Supports 2 SD/HD/3G-SDI outputs Supports 1080P60 Seamless switching
HDBaseT		Supports HDBaseT output Distance up to 220/330ft at 1080P60 with Cat6 Seamless switching
4K60 Seamless switching Cards		



4K60 HDMI2.0		Support 4K30 HDMI input Support HDCP1.4 Support EDID handshaking
4K60 HDBaseT		Supports HDBaseT input with 1 HDMI loop out Distance up to 120ft at 4K30 POC(Power over Cable) function
4K60 Fiber		Supports LC connector SM fiber output Distance up to 6561ft by single model fiber Work with the 4K60 Fiber Optic Rx
4K30 Pass-through Cards		
4K30 HDMI		Support 4K30 HDMI output Support HDCP1.4
4K30 HDBaseT		Supports HDBaseT output Distance up to 110ft/220ft at 4K30 POC(Power over Cable) function

Note: All the above cards can work with MINI-MANAGER-900/1800/3600, BUT we suggest to use only 1080P, 4K60 or 4K30 pass-through cards on one chassis instead of mixing use 1080P and 4K60 or 4K30 cards together.

Attachment B: DIP Switches Operation Instruction

4K60 seamless switching cards:

4K60 HDMI2.0 Input Card DIP Switch												
Customize Resolution				3.5mm Audio		Null				IR Function		
DIP 1	DIP 2	DIP 3	DIP 4	Description	DIP 5	Description	DIP 6	Description	DIP 7	Description	DIP 8	Description
0	0	0	0	1080P@60Hz	0	Using External audio	0	Null	0	Null	0	IR off
0	0	0	1	1080P@50Hz	1	Using HDMI audio	1		1		1	1
0	0	1	0	3840*2160@50Hz								
0	0	1	1	720P@60Hz								
0	1	0	1	1366*768@60Hz								
0	1	1	0	1024*768@60Hz								
0	1	1	1	3840*2160@30Hz								
0	1	0	0									
1	0	0	0	3840*2160@24Hz								
1	0	0	1	480P@60Hz								
1	0	1	0	720P@50Hz								
1	0	1	1	576P@50Hz								
1	1	0	0	3840*2160@60Hz								
1	1	1	0	4096*2160@60Hz								
1	1	1	1	4096*2160@50Hz								

Customize Resolution					Customize Color Space			HDCP2.2		IR Function	
DIP 1	DIP 2	DIP 3	DIP 4	Description	DIP 5	DIP 6	Description	DIP 7	Description	DIP 8	Description
0	0	0	0	1080P@60Hz	1	1	RGB	0	HDCP On	0	IR off
0	0	0	1	1080P@50Hz	1	0	YUV422	1	HDCP Off	1	IR on
0	0	1	0	3840*2160@50Hz	0	0	YUV420				
0	0	1	1	720P@60Hz	0	1	YUV444				
0	1	0	1	1366*768@60Hz							
0	1	1	0	1024*768@60Hz							
0	1	1	1	3840*2160@30Hz							
1	1	1	1								
0	1	0	0	4096*2160@50							
1	0	0	0	4096*2160@30							
1	0	0	1	480P@60Hz							
1	0	1	0	720P@50Hz							
1	0	1	1	576P@50Hz							
1	1	0	1	1920*1200/60							
1	1	0	0	3840*2160@60Hz							
1	1	1	0	4096*2160@60Hz							

1080P seamless switching cards:

1080P (HDMI/MAV/HDBaseT) Input Card DIP Switch												
Customize Resolution				Input Source Select			Image or Audio Select			IR Function		
DIP 3	DIP 4	DIP 5	Description	DIP 7	DIP 1	DIP 2	Description	DIP 6	Version	Description	DIP 8	Description
0	0	0	1024*768	1	0	0	CVBS Input	1	Version 1	Normal display	0	IR off
0	0	1	1360*768	1	0	1	YPBPR input	0		Image mirror	1	IR on
0	1	0	1920*1200	1	1	0	VGA input	1	Version 2	HDMI audio input		
0	1	1	720P/60	1	1	1	DVI input	0		3.5mm audio input		
1	0	0	Null	0			Signal Auto detect					
1	0	1	Null									
1	1	0	1080P/50									
1	1	1	1080P/60									

Version 1 for customizing the No signal logo
Most of the cards are using the version 2

1080P SDI Input Card DIP Switch													
Customize Resolution					Input Source Select			Image Mirror/Zoom Select					
DIP 2	DIP 3	DIP 4	DIP 5	Description	DIP 1	Description	DIP 6	Description	DIP 7	DIP 8	Description		
0	0	0	0	800*600/60	0	VGA/HDMI	0	Image mirror	0	0	zoom off		
0	0	0	1	1024*768/60	1	YUV/HDMI	1	MirrorOff	0	1	zoom 5%		
0	0	1	0	1280*1024/60							1	0	zoom -5%
0	0	1	1	1360*768/60							1	1	zoom 9%
0	1	0	0	1400*900/60									
0	1	0	1	1600*1200/60									
0	1	1	0	1680*1050/60									
0	1	1	1	1920*1200/60									
1	0	0	0	576P/60									
1	0	0	1	576i/60									
1	0	1	0	720P/50									
1	0	1	1	720P/60									
1	1	0	0	1080i/50									
1	1	0	1	1080i/60									
1	1	1	0	1080P/50									
1	1	1	1	1080P/60									

1080P (MAV, SDI) Output Card DIP Switch											
Resolution Set Up						Color Space		Image		IR	
D2	D3	D4	D5	D6	Description	D1	Description	D7	Description	D8	Description
0	0	0	0	0	1024*768@60	0	RGB	0	Image mirror	0	IR ON
0	0	0	0	1	800*600@60	1	YUV	1	Normal display	1	IR OFF
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						

1080P (HDMI/HDBaseT) Output Card DIP Switch										
Resolution Set Up						Image				
D1	D2	D3	D4	Description		D5	Description	D6	Description	
0	0	0	0	720P/60		0	Image mirror	0	ZOOM 5%	
0	0	0	1	720P/50		1	Normal display	1	Normal	
0	0	1	0	1366*768/60						
0	0	1	1	1024*768/60						
0	1	0	0	1920*1080P/60						
0	1	0	1	1920*1080P/60						
0	1	1	0	1920*1080P/60						
0	1	1	1	1920*1080P/60						
1	0	0	0	1920*1080P/60						
1	0	0	1	1920*1080P/60						
1	0	1	0	1920*1080P/60						
1	0	1	1	1920*1080P/60						
1	1	0	0	576P/60						
1	1	0	1	1920*1080P/30						
1	1	1	0	1920*1080P/50						
1	1	1	1	1920*1080P/60						

POC OFF/ON DIP Switch on the HDBaseT Cards

A	B	C	D	Description
UP	UP	DOWN	DOWN	POC function ON
MIDDLE	MIDDLE	MIDDLE	MIDDLE	POC function OFF

