

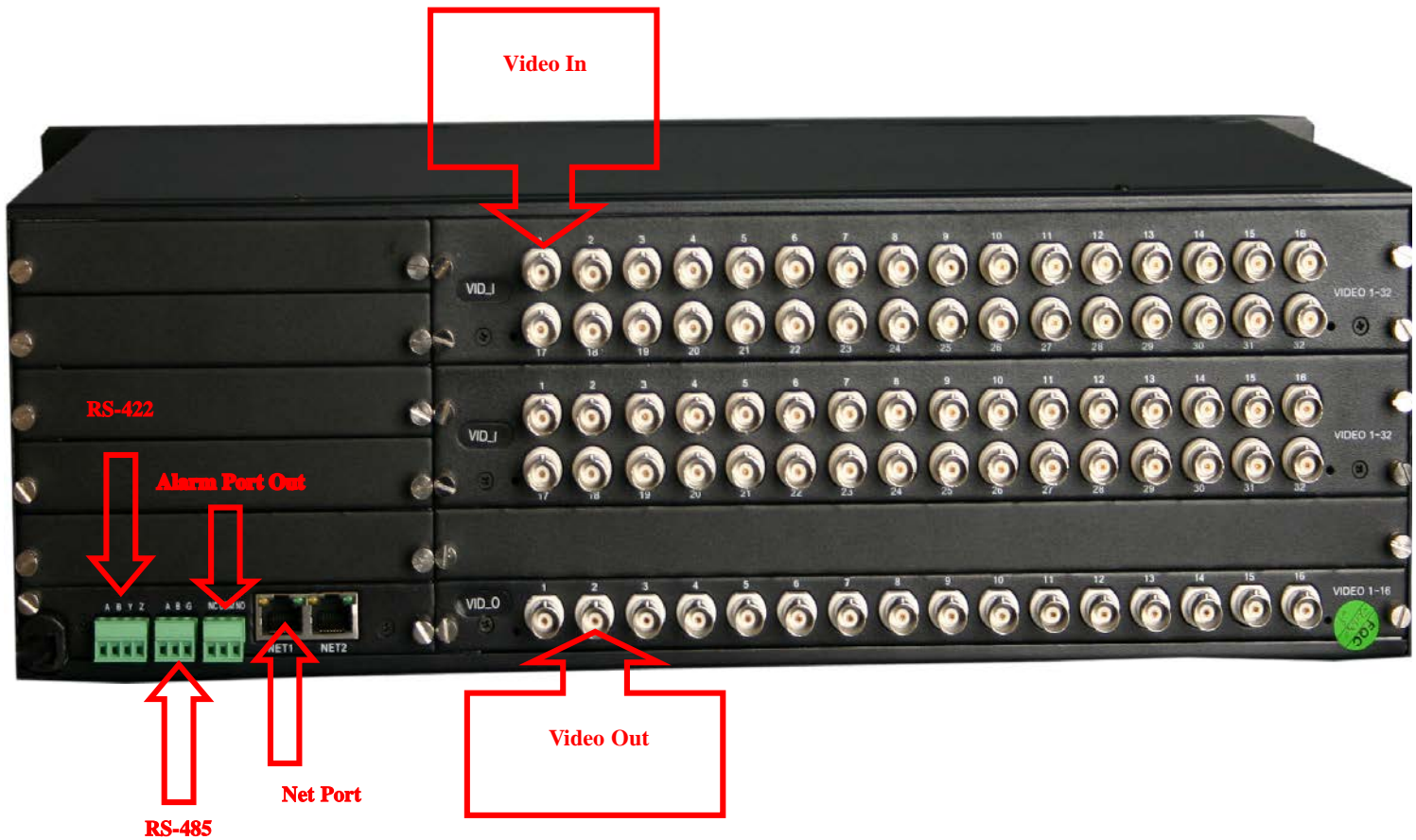
## Video Matrix Switcher - Technical Manual

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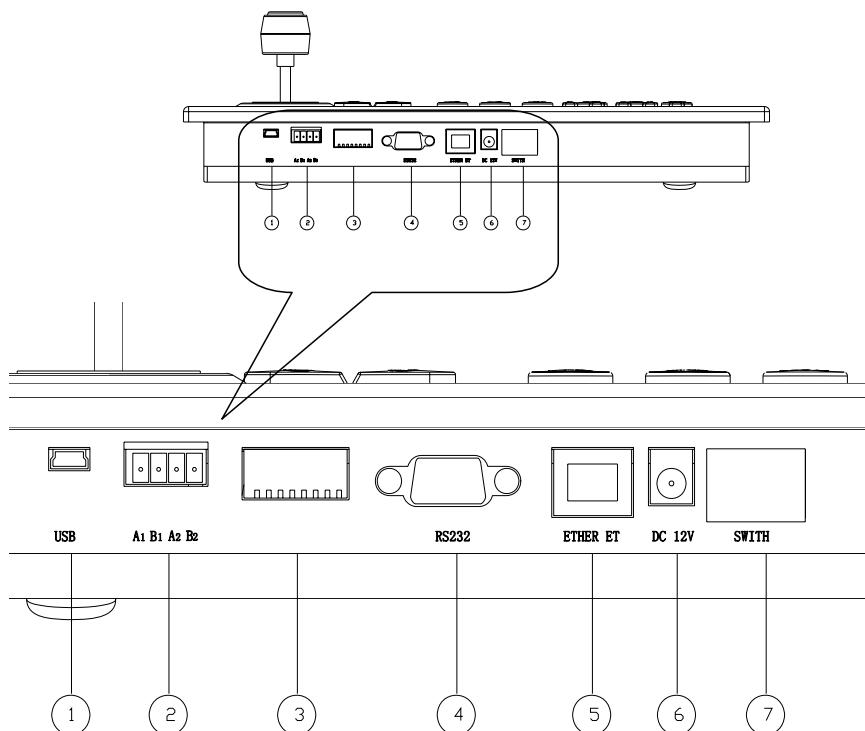
## Matrix switcher hardware structure

The matrix switcher is composed by several board modules with different functions.

- (1) CPU board ---there are many different interface to connect PTZ control keyboard, control code distributor, alarm host, audio host and etc.
- (2) Video in board (64 channels) -- connect to speed domes or cameras.
- (3) Video out board (16 channels) -- connect to monitors.

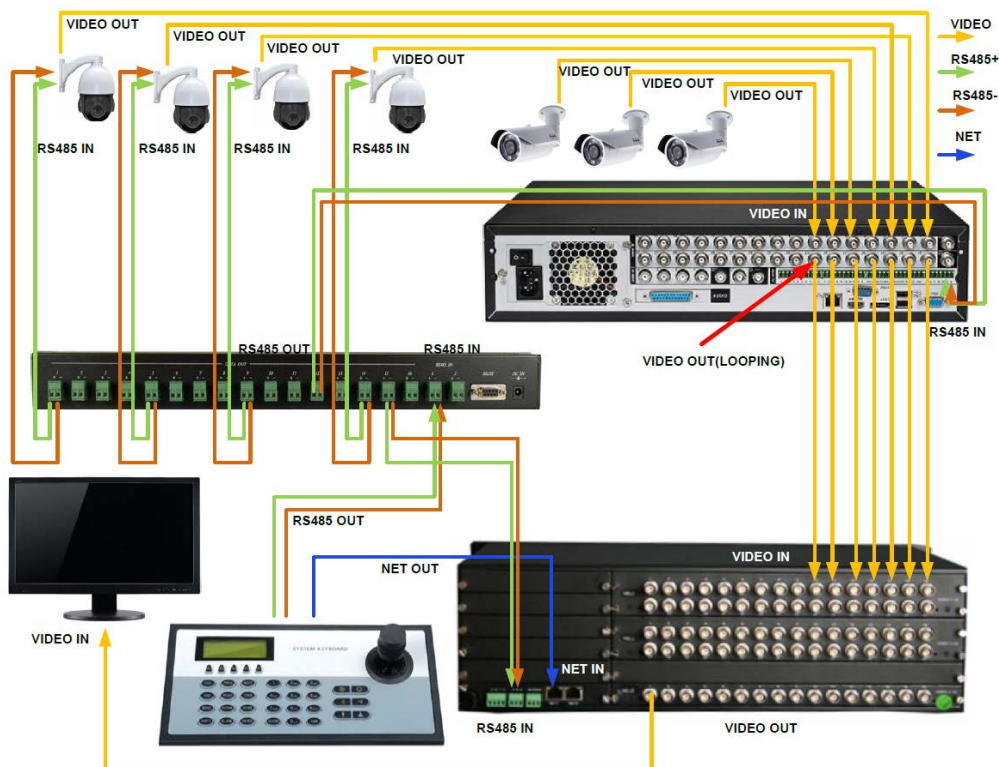


# Interface description and connection



【figure 2-1 keyboard back panel】

- ① MINI USB: Program upgrade USB
- ② RS-485: Two lines of RS-485 control, for connecting PTZ and DVR
- ③ Dip switch: Reserved for further use
- ④ RS-232: Reserved for further use
- ⑤ Network connection: for connecting matrix switcher
- ⑥ Power input: DC12V/1000mA
- ⑦ Power switch



## How to setup matrix switcher?

(1) Connect matrix switcher to a computer, and open IE browser. Use the default IP address 10.10.10.80 to login the system settings interface. The default admin User ID is 0 and password is 000000.

**CCTV SYSTEM**  
Matrix Switching/Controlling System

**System Login**

User ID:

Password:

NOTE: It is suggested to close your computer's proxy server before you login the matrix system

CHINESE | ENGLISH

## (2) User Management

User ID	User Name	Status	User Group	Macro	ParamConn	ParamAttr	Operate	Edit
0	Admin	Normal	Senior Admin	0	0	0		Edit
1	00B20A1	Normal	Senior Operator	0	0	0		Edit
2	00B20A2	Normal	Senior Operator	0	0	0		Edit
3	00E2A2	Normal	Senior Operator	0	0	0		Edit
4	00E2A3	Normal	Senior Operator	0	0	0		Edit
5	00E2A4	Normal	Senior Operator	0	0	0		Edit
6	00E2A5	Normal	Senior Operator	0	0	0		Edit
7		Normal	Senior Operator	0	0	0		Edit
8		Normal	Senior Operator	0	0	0		Edit
9		Delete	Senior Operator	0	0	0		Edit
10		Delete	Senior Operator	0	0	0		Edit
11		Delete	Senior Operator	0	0	0		Edit
12		Delete	Senior Operator	U	U	U		Edit
13		Delete	Senior Operator	U	U	U		Edit
14		Delete	Senior Operator	U	U	U		Edit
15		Delete	Senior Operator	U	U	U		Edit
16		Delete	Senior Operator	0	0	0		Edit
17		Delete	Senior Operator	0	0	0		Edit
18		Delete	Senior Operator	0	0	0		Edit
19		Delete	Senior Operator	0	0	0		Edit

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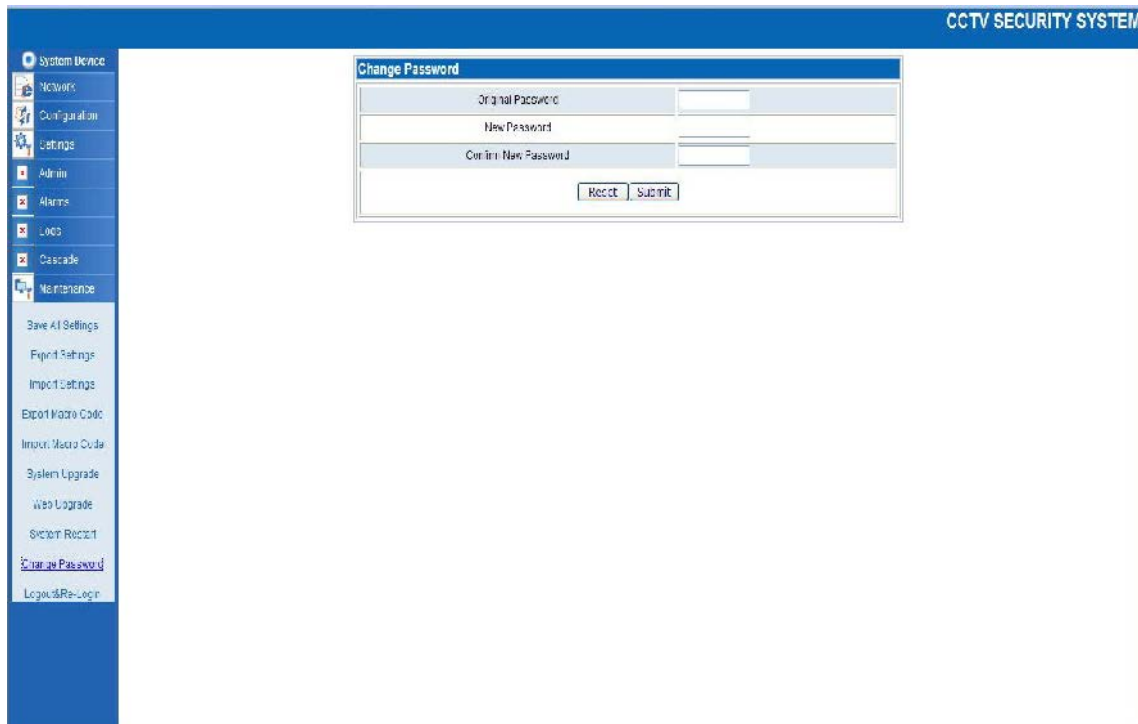
User Group : Classify the users by their authorities. The authorities have been classified as Senior Operator, General Operator, General Admin, Secondary Admin and Senior Admin. Senior Admin can do all the settings of the matrix switcher. Secondary Admin can not upgrade the system and scan configuration. General Admin can not do system setting. Senior Operator can not do alarm arming and disarming. General Operator can not lock current monitor and camera.

If you forget user ID's password, you can log on IE browser by Senior Admin's user ID and password(0/000000) , then choose "edit" and click "system default password-000000" according to the next picture.

Edit Matrix User	
Setup Item	Input Value
User ID	1
User Name	ÖDDÄ±ÜÄí
Status	Normal ▾
User Group	Senior Operator ▾
Login Call Macro	<input type="text" value="0"/> Parameter Cam <input type="text" value="0"/> <input type="text" value="0"/> Parameter Mon <input type="text" value="0"/>
Resume Default Password	<input type="checkbox"/> System Default Password-000000
<input type="button" value="Reset"/> <input type="button" value="Submit"/> <input type="button" value="Close"/>	

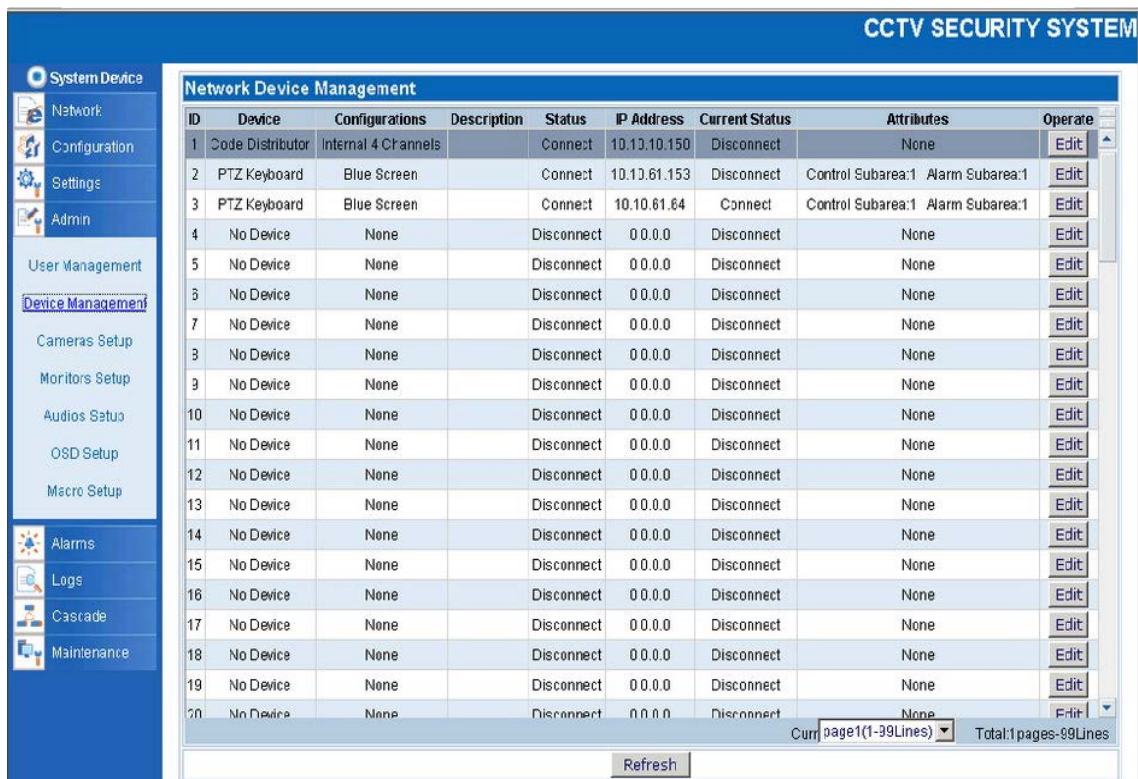
Change password : The new password is only for the current user.





### (3) Network Device Management

The matrix switcher can communicate and work with other external devices through Ethernet. For security consideration, the matrix switcher and other external devices' IP addresses must be set in a same network segment. Moreover, the information of external devices needs to be registered in system.



At first, you have to “edit” the keyboard. (choose “connect” form “Status Setup” and

fill in key board's IP Address.)

Edit Network Device	
Setup Item	Input Value
ID	2
Device	PTZ Keyboard
Model	Blue Screen keyboard
Description	
Status Setup	Connect
IP Address	10 . 10 . 61 . 153
Current Status	Disconnect
Keyboard Attributes	Control Subarea: 1 Range: 1~32
	Alarm Subarea: 1 Range: 1~16

Reset Submit Close

Notes: "Control Subarea" must be the same as Edit Monitor.

Edit Monitors	
Setup Item	Parameter Value
Physical Number	1
Physical Por(422)	2
Slot Address	4
Plate Number	1
Logical Number	1 CAUTION: Not repeat
Description	
Default Camera	1
Display Subarea(Reserve)	0
Control Subarea	1
Default Call Macro	2
Set as Cascade Monitor	<input type="checkbox"/> Note: This item does not support batch settings

Copy Reset Submit Batch Setup Close

Change control protocol and baud rate:

**CCTV SECURITY SYSTEM**

**System Device**

- Network
- Configuration
- Settings
- Admin
- User Management
- Device Management**
  - Cameras Setup
  - Monitors Setup
  - Audios Setup
  - OSD Setup
  - Macro Setup
- Alarms
- Logs
- Cascade
- Maintenance

**Network Device Management**

ID	Device	Configurations	Description	Status	IP Address	Current Status	Attributes	Operate
1	Code Distributor	Internal 4 Channels		Connect	10.10.10.150	Disconnect	None	Edit
2	PTZ Keyboard	Blue Screen		Connect	10.10.61.153	Disconnect	Control Subarea:1 Alarm Subarea:1	Edit
3	PTZ Keyboard	Blue Screen		Connect	10.10.61.64	Connect	Control Subarea:1 Alarm Subarea:1	Edit
4	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
5	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
6	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
7	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
8	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
9	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
10	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
11	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
12	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
13	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
14	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
15	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
16	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
17	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
18	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
19	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit
20	No Device	None		Disconnect	0.0.0.0	Disconnect	None	Edit

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Refresh

Click the “edit” form “Code Distributor”, you can see interface as the following picture:

**Edit Network Device**

Setup Item	Input Value
ID	1
Device	Code Distributor
Model	Integrated Single CPU
Description	
Status Setup	Connect
IP Address	Non-network Device
Current Status	Connect
Code Distributor Attributes	Baud Rate: 9600 Control Protocol: Molynx

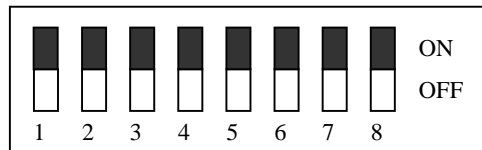
Reset Submit

- PELCO\_P
- PELCO\_D
- Tiandy
- 618\_P
- 618\_D
- Molynx



## PCB board DIP Switch

XTS-VMM series supports many card modules include video in, video out, audio switch, audio out, power, alarm, code distributor, network and so on.. Every card (besides audio out, code distributor and network module,) will be mounted into the card cage of the matrix and the system will show the current status of every card. Some card modules have 8 switches as the following picture.



Switch 1-3 is cage's address (0-7), all the card module is same.

switch			Cage address
3	2	1	
OFF	OFF	OFF	0
OFF	OFF	ON	1
OFF	ON	OFF	2
OFF	ON	ON	3
ON	OFF	OFF	4
ON	OFF	ON	5
ON	ON	OFF	6
ON	ON	ON	7

### Card type dip switch:

Switch 5-8 is show some card module's configure information.

video in card module:

switch				Video in
8	7	6	5	
OFF	OFF	OFF	OFF	32 in
OFF	ON	OFF	OFF	16 in
ON	OFF	OFF	OFF	24 in
ON	ON	OFF	OFF	8 in

Audio switch card module:

switch				Audio switch
8	7	6	5	
OFF	OFF	OFF	OFF	32 in 32 out
OFF	OFF	OFF	ON	32 in 24 out
OFF	OFF	ON	OFF	32 in 16 out

<b>OFF</b>	<b>OFF</b>	<b>ON</b>	<b>ON</b>	<b>32 in 8 out</b>
<b>OFF</b>	<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>16 in 32 out</b>
<b>OFF</b>	<b>ON</b>	<b>OFF</b>	<b>ON</b>	<b>16 in 24 out</b>
<b>OFF</b>	<b>ON</b>	<b>ON</b>	<b>OFF</b>	<b>16 in 16 out</b>
<b>OFF</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>16 in 8 out</b>
<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>24 in 32 out</b>
<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>ON</b>	<b>24 in 24 out</b>
<b>ON</b>	<b>OFF</b>	<b>ON</b>	<b>OFF</b>	<b>24 in 16 out</b>
<b>ON</b>	<b>OFF</b>	<b>ON</b>	<b>ON</b>	<b>24 in 8 out</b>
<b>ON</b>	<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>8 in 32 out</b>
<b>ON</b>	<b>ON</b>	<b>OFF</b>	<b>ON</b>	<b>8 in 24 out</b>
<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>OFF</b>	<b>8 in 16 out</b>
<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>8 in 8 out</b>

Video out card module:

<b>Switch</b>				<b>Video out</b>
<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	
<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>32 out</b>
<b>OFF</b>	<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>16 out</b>
<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>24 out</b>
<b>ON</b>	<b>ON</b>	<b>OFF</b>	<b>OFF</b>	<b>8 out</b>

Alarm card module:

<b>switch</b>				<b>alarm</b>
<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	
<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>8 in</b>
<b>OFF</b>	<b>OFF</b>	<b>OFF</b>	<b>ON</b>	<b>16 in</b>
<b>OFF</b>	<b>OFF</b>	<b>ON</b>	<b>OFF</b>	<b>24 in</b>
<b>OFF</b>	<b>OFF</b>	<b>ON</b>	<b>ON</b>	<b>32 in</b>

## How to set matrix's default IP address?

- (1) Turn off the matrix.
- (2) Put the switch 1 to ON.
- (3) Turn on the matrix.
- (4) Waiting about 20—30 seconds.
- (5) Turn off the matrix again after listen the sound.
- (6) Put the switch 1 to OFF.
- (7) Turn on the matrix again, now the matrix's IP address is 10.10.10.50
- (8) Switch 2-4 is reserve for the expansion.

