# Rackmount KVM-over-IP Switch 1 Local / 1 Remote Access

# (HT1108/ HT1116 / HT1132)



www.kinankvm.com @all right reserved Shenzhen Kinan Technology Co., Ltd Printing date: 2021/11 Version: V2.1

## Contents

1. Description	3
1.1 Brief Introduction	3
1.2 Features	
1.3 Appearance	4
Front View	4
Structure and Size	5
2. Hardware Installation	6
2.1 Rack Mounting	6
2.2 KVM Installation Diagram	8
2.3 Opening the KVM	8
2.4 KVM Adapter	9
3. LED Operating	10
3.1 Operating the Buttons	10
3.2 Key combination function	11
4. UI interface Operating	12
4.1 User	13
User List	13
User group list	14
Change password	16
4.2 System	16
Network settings	17
Date time	
Equipment information	
Encoding parameters	
4.3 Security	
Security Settings	
Audit log	
4.4 Maintain	
Backup& Restore	
Ping	
Update	22
5.Remote control	23
5.1 Configure the target server	
5.2 Remote WEB interface settings	
5.3 Log in	

6. IP Menu Option	36
6.1 User management	36
User List	36
User group list	39
Change Password	41
6.2 System	41
Network Setting	42
Date /Time setting	43
Encoding Parameters	43
6.3 Safety management	44
Security Settings	44
Audit Log	45
6.4 System Maintenance	45
Backup& Restore	46
Ping Host	46
Equipment Management	47
Remote upgrade	47
Appendix	48
Grounding Requirements	49

#### 1.Description

#### 1.1 Brief Introduction

The KVM - over - IP (Hereinafter refers to IP KVM) redirects the local keyboard, mouse and video data to a remote administration console. It allows you to control one or many computers locally at the server site or remotely via the Internet using a standard browser. You can securely gain BIOS level access to systems for maintenance, support, or failure recovery over the Internet.

It is easy and fast to install the IP KVM, you just need to connect corresponding cables to the right ports of KVM and its module without software configuration. Connect computers with compact RJ-45 connectors and Cat 5e/6/7 cable, transmitting distance is up to 100M.

#### 1.2 Features

#### **Hardware Features**

- Rack-mountable in 1U system rack
- Dual power supply

#### Local Console

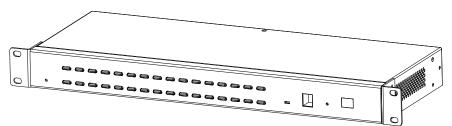
- Control up to 8 / 16 / 32 computers
- Support 1 local user and 1 remote user, port share mode allows local and remote users to gain access to a server simultaneously
- Easy-to-use switching by browser-based UI interface, hotkeys and pushbuttons
- Support servers with VGA/DVI/HDMI/DP port
- Multiplatform client support (Windows, Linux, Unix, Mac, Solaris (Sun), Redhat, Ubuntu
- Local Console, Browser, and AP GUIs offer a unified Multilanguage interface
- Support mouse synchronization mode-automatically synchronizes the local and remote mouse movements
- Video synchronization with local console EDID information for local console display can be stored in the host module for video resolution optimization
- Keyboard and mouse emulation to ensure the normal booting
- Auto scan feature for monitoring user-selected computer
- Hot pluggable--add or remove computers without having to power down the switch

#### Remote Console

- Adaptive 10 / 100 / 1000 Mbps network
- WEB browser-based Or KVM\_Clients remote management BIOS-level access
- BIOS-level access
- Video quality and video tolerance can be adjusted to optimize data transfer speed, data transfer speed is up to 30 FPS
- Full screen or scalable video display
- Remote users and local users can control the same server/computer synchronously
- Support AES / DES / 3DES encryption
- Support audit function-allows the administrator to audit the device through the system log and operation log
- Exit Macros support
- Configurable user and group permissions for server access and control
- Support strong password
- Support firmware upgrade

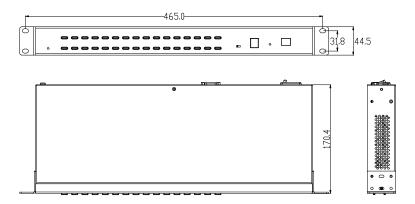
1.3 Appearance

Front View



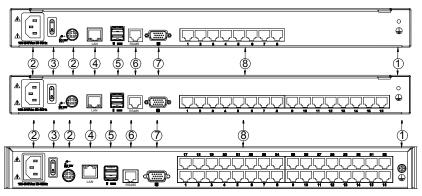
1-1.1 front view

#### Structure and Size



1-1.2

Rear view



1-1.3

No.	Explanation
1	Ground connecting screw
2	Power input (AC or DC)
3	Power Switch
4	LAN Port
5	USB Port
6	RS485 Port
7	Monitor Port
8	PC connecting port

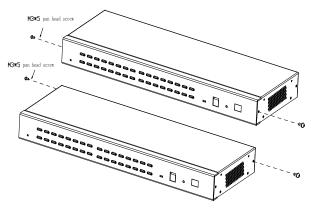
#### 2. Hardware Installation

#### 2.1 Rack Mounting

The KVM switch will be installed in the front or rear rack cabinet. Make sure all the connecting computers as well as external device are shut down.

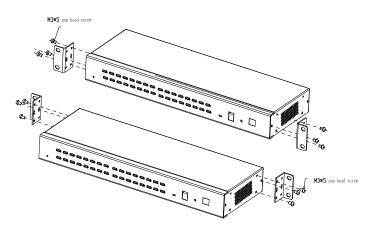
#### Installation instruction:

1) Remove the front or rear screw



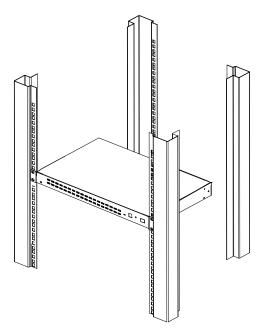
2-1.1

2) Screw the bracket to the front or rear part of the KVM switch



2-1.2

#### 3) Screw the KVM device to the rack cabinet (front or rear part)

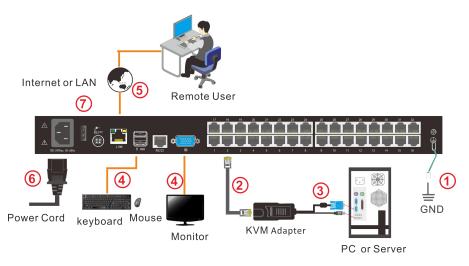


2-1.3

#### 2.2 KVM Installation Diagram

Installation Steps:

- 1) Make sure the IP KVM has been connected to the ground. 1
- 2) Connect PC or server to KVM with KVM Adapter and CAT5 cable according to number (2) and (3) in below diagram.
- 3) Connect the local console (keyboard, monitor and mouse) to the console port (see number ④ in below diagram)
- 4) Connect IP KVM's LAN port to the Internet (see number (5) in below diagram).
- 5) Connect 220V AC power (see number<sup>6</sup>) in below diagram), then turn on power switch (7) and the KVM start auto-checking and make "beep" sound.
- 6) Power on PC or server.



2-2.1 Installation diagram

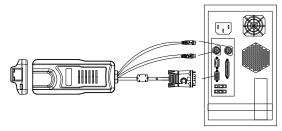
#### 2.3 Opening the KVM

• The KVM makes "beep" sounds after power on, UI window appears for you to input user name and password.

Ρ	Jser Name: Password: I Keep Password  Keyboard Show Password Login
User Name:	admin
Password:	admin

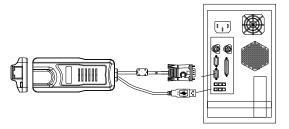
#### 2.4 KVM Adapter

#### PS/2 Adapter



Model No.	Keyboard/Mouse	РС	Explanation
KCM-1100P	PS/2	VGA	Connect to PS2/VGA server

#### USB Adapter



Model No.	Keyboard/Mouse	PC	Explanation
KCM-1200U	USB	VGA	Connect to USB/VGA server
KCM-3200H	USB	HDMI	Connect to USB/HDMI server
KCM-2200D	USB	DVI	Connect to USB/DVI server
KCM-4200P	USB	DP	Connect to USB/DP server

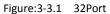
#### Table1 : LED Indicator of the KVM Adapter

Components	Function	
Green	Online	Indicates that the corresponding host has been connected to the KVM switch and Power On.
Orange	Selected	Indicates that the corresponding host is in use.

#### 3. LED Operating

3.1 Operating the Buttons





No.	Name	Functions	
1	Port Selection	Press this button to choose the server connected to the corresponding port and the LED displays the pressed button number.	
2	LEDs	The port indicator is built into the port selector switch. The online indicator (green) indicates that the server on the corresponding end is already connected to KVM and Power On. The selected indicator (orange) indicates that the server of the corresponding port is working.	
3	KVM Reset	Reset the KVM	
4	Firmware Upgrade	Upgrade the firmware	
5	Software Upgrade	Upgrade the software	
6	Power Indicator	KVM Power Status	
7	Station ID	The current port number is displayed. When there is a cascade lower level, the number of BANK will be displayed.	
	Brightness -ִָָּ̈̈̈́̈́̈́	Press 【3】 for three seconds enters brightness adjusting mode. 33 are flashing on the LED tube. Then press 【5】, 【6】 to adjust. Press【3】exits or waits for five seconds and it will auto-exit.	
8	Definition	Press 【4】 for three seconds enters definition adjusting mode. 44 are flashing on the LED tube. Then press 【5】, 【6】 to adjust. Press 【 4 】 exits or waits for five seconds and it will auto-exit	
	Initialize D 🔅	Press 【6】 for three seconds will initialize the brightness and definition of each port.	

#### 3.2 Key combination function

If you want to set other hotkeys to pop up the UI interface or key combination switch, set up via the local console, 【System Settings】 > 【Device info】. For details, see Device Information (Page: 19)

Pop up the UI interface	Double click 【L_Ctrl】 Double click 【L_Alt】 Double click 【Scroll Lock 】 Double click 【Caps Lock】
Hot key	【L_Alt】 + 【L_Ctrl】 【L_Win】 + 【L_Ctrl】 【L_Alt】 + 【L_Win】

#### Hotkey commands are as follows:

Hot key + the corresponding function key

Function	Operating	Function description	
	+Number	Skip ports from 1~16	
Port switch	+ 【↑】/【→】	Skip to previous port	
	+ 【↓】/【←】	Skip to next port	
Drichteres	+ [+]	+	
Brightness	+ [-]	-	
	+ 【>】	-	
definition	+ 【<】	-	
Reset Video	+ (R)	Reset the video	
Lock KVM	+ 【L】	Lock KVM and a user login window appears	

#### 4. UI interface Operating

login UI control menu
 User Name: admin
 Password: admin

After logging in the device, you can see the connection status of the device port.

Home > KVM				
Port Num	Port Name	State	Permission	Group
01-06	Port_006	connect	Control	
01-01	Port_001	close	Control	
01-02	Port_002	close	Control	
01-03	Port_003	close	Control	
01-04	Port_004	close	Control	
01-05	Port_005	close	Control	
01-07	Port_007	close	Control	
01-08	Port_008	close	Control	
01-09	Port_009	close	Control	
01-10	Port_010	close	Control	
01-11	Port_011	close	Control	
01-12	Port_012	close	Control	
01-13	Port_013	close	Control	
01-14	Port_014	close	Control	
01-15	Port_015	close	Control	
01-16	Port_016	close	Control	

In the port list,

- 1. Click the "Connect" to enter the host screen;
- 2. In the host screen, press the [L\_Ctrl] key on the keyboard twice. Return to the UI interface.

#### 4.1 User

User management mainly set up for adding, deleting and modifying user& user group, user password modification, user group permissions and so on. If the user does not have user management authority, the user cannot access to user management interface. The user in this section is who have the user management authority.

	2
U	ser management
Us	ers list
Us	er group list
Mo	dify password

#### User List

Home > U	ser management > user l	list						
Please ent	er the user name	find						
			Each page shows: 16					
	user name	user state	user group					
	admin	On	SUPER_USER					
shows 1 to	shows 1 to 1 items, 1 items in total							

User list interface: list all registered users, you can see more by page turning

User name or full user name search Input user name, it shows related users which make it convenient when you have a large number of users

#### Add user

**Click [add]** button, the window below appears:

12 - 12 2	
User Name: *	
Password: *	
Confirm password: *	
User Group: *	
SUPER_USER	-
Confirm Ca	ncel

#### In this window, "\*" is required content

- 1) User name: user name can only be low case letter, number and "\_"
- 2) Enter password: without strong password protection, the password can only compose of 1-16 letters, numbers or special characters (-@. \$! \_); with strong password protection, the password should be filled in according to the rules of strong password protection. More details please check "security management— > security setting—> strong password"
- 3) User group: Select the corresponding user group

	Search Group Add Del				
Num	User Group Name				
0	SUPER_USER				
1	1				
2	2				
3	3				
4	4				

#### User group list

User group list interface: List all registered users, you can see more by page turning

- User group name search Input user group name, it shows related user groups which make it convenient when you have a large number of users
- Add user group
   Click 【add】 button, the window below appears

JserGroup Name	: *					
permission						
KVM user	control 🗌 s	ystem S	ettings	s safe	ty cor	ntrol 🗌 Mainter
port authority						
Numuber	Port Name	port a	iccess	virtua	l medi	ia Shortcut
1	Port_001	View	*	Refuse	Ŧ	All ports for v 🖛
2	Port_002	View	*	Refuse		<b>New York (1997)</b>
3	Port_003	View	-	Refuse	-	
4	Port_004	View	*	Refuse	*	
5	Port_005	View	-	Refuse	*	
6	Port_006	View	*	Refuse	*	
	Port_007	View	*	Refuse	*	
7		View	-	Refuse	•	
7 8	Port_008					

1) User group name: it contains only low case letter, number and "\_"

2) Authority: mainly refers to management authority and operation authority, click show more, authority menu appears (shown in picture above), click show less, authority menu disappears

- $\diamond$  Port Access: Authority to access KVM, and control target server
- ♦ User Management: user management authority
- ♦ Device Setting: KVM device management authority
- ♦ Security Management: security management authority
- ♦ System Maintenance: system maintenance authority

3) Port authority: set up access and operating authority for each port

#### Change password

Change the User login password.

Driginal Password :	*		
New Password : *			
confirm password :	*		

#### In this window, "\*" is required content

- 1) User name: it contains only low case letter, number and "\_"
- 2) Enter password: without strong password protection, the password can only compose of 1-16 letters, numbers or special characters (-@. \$! \_); with strong password protection, the password should be filled in according to the rules of strong password protection. More details please check "security management— >security setting—>strong password"
- 3) User group: Select the corresponding user group
- 4.2 System



#### Network settings

Network Settings	System Settings > Network Settings
Network Settings	
IP Address :	
192.168.2.167	
Subnet Mask :	
255.255.255.0	
Gateway :	
192.168.1.1	
MAC :	
00:4a:b5:3c:6f:58	
DCSG Settings DCSG IP	
192.168.1.100	
DCSG Port	
5500	
con	nfirm

#### I P v 4 address setting:

- ♦ I P address: preset IP address
- $\diamond~$  Subnet mask: Generally, it should be consistent with other devices in the network.
- ♦ Default gateway: Generally, it should be consistent with other devices in the network.
- ♦ MAC address: physical address
- ♦ DCSG IP: the IP address should be the same with the Authentication Server IP address
- $\diamond\,$  DCSG Port: The Port should be the same with the Authentication Server Port.

#### Date time

te Settings System S	Settings > Date Settings
Date Settings	
User setting time	
Date Settings:	
1970-01-14	-
Time Setting:	
13:48:29	
<ul> <li>Synchronize with th</li> <li>Time server:</li> </ul>	e NTP server:
202.120.2.101	
Select time zone:	
	•

System time setting:

Customized time: manual setting

 $\blacksquare$  Synchronize with the NTP server: the system automatically updates the time according to the time

User Manual

#### Encoding parameters

Encoding parame	eter System Settings > Encoding parameters
Video Formats: Stream type:Ma	1940-00
Frame Rate:	25 25
Rate Limit:	6MPBS 👻
	ок

#### 4.3 Security



#### Security Settings

gon restric	Login lock
Restrict single sign-on.	O Disable lock
password expiration 50 Day	<ul> <li>Account lock try 60</li> </ul>
Cancellation user 36 (1~365minutes)	Timed lock try 60 Locking 2 (1-1440minutes)
Enable password	Local info encryption mode No ENCRYPTION
trong	Encryption s
Contain lowercase Contain uppercase	Local device reset mode Enable Local Factor
Contain Number	Encryption mode is applied to KVM and virtual
assword depth 3	
fin/max length 1 - 16	

Login restriction: user name login restriction

 $\diamond\,$  Single sign on restriction: if one user name is logged in, it can no longer log in with this user name, if it is selected, you can log in with the user name

♦ Enable passwords expiration: current password use days ranges from 1-365 days, if it is selected, the default is 50 days

 $\diamond\,$  Free user logs off: If user do not have operations after logging in a set time, the user will be logged off automatically

Login lock

- ♦ Disable Lock: when it is selected, login lock will be canceled
- ♦ Account lock: set trying number of times for login attempts failed

 $\diamond\,$  Timed lock: set the account lock time when account login failed attempts are over the setting number of times

Strong password

 $\diamond\,$  Enable strong password: when it is selected, the original password will be forced to be changed

 $\diamond$  Password history depth: new password cannot be the same as the latest 3 default passwords, this number can be changed, it ranges from 1-10

♦ Strong password length: From 1-bit to16 bits.

Encryption mode

 DES AES128
 ♦ Local information encryption mode: AES256

three encryption schemes

and one un-encryption scheme

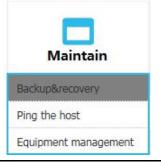
 $\diamond$  Encryption mode is applied to KVM and virtual media: applied when it is selected

#### Audit log

Date:	1970-01-14 00:00:00 -	1970-01-14 13:49:28 -	Maintype: ALL	- subt	ypes: ALL	-	Search
Num	Date	Event	Instructions				
01-01							
01-02							
01-03							
01-04							
01-05							
01-06							
01-07							
01-08							
01-09							
01-10							
01-11							
01-12							
01-13							
01-14							
01-15							
01-16							

#### 4.4 Maintain

Provide system maintenance tools such as test tools, data backup and restart



Backup& Restore



### Backup: backup current system settings

**Restore:** restore the last backup of system

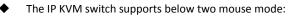
Factory reset: Restore to factory state (KVM must be restarted to take effect)

Ping	
	Home > System maintenance > Ping the host
Update	Ping
	Home > System maintenance > equipment managrment
	Local upgrade mode:
	Reboot Mode: Reboot Device

#### 5.Remote control

5.1 Configure the target server

The KVM target server is the server that connected to the IP KVM Switch. Before install and use the IP KVM Switch, we need to configure the target server first. Please refer to below configuration instructions:



- Absolute mouse mode
- ♦ Relative mouse
- ♦ Intelligent mouse mode

Mouse configuration is different for different operating systems; please refer to below detail instructions for mouse configuration.

#### Mouse and display configuration on Windows server 2003 and above version, Windows XP and above version

Operating systems: Windows server 2003, Windows server 2005, Windows server 2008, Windows server 2012; Windows XP, Windows7, Windows8, Windows10

#### ♦ Set Mouse Precision

Start—>Control Panel—> [Hardware]—>Mouse

Mouse Properties	5			? 🛛
Buttons Pointers	Pointer Options 1	Wheel	Hardware	
Select Slow	a pointer speed:	— F	ast	2
Enh	ance pointer prec	cision		3
	omatically move p og box	ointer to t	he default bu	utton in a 4
Short		· Y	ong	
	e pointer while typ		I press the C	TRL key
		ЭК	Cancel	Apply

Please follow the steps above to finish the setting.

Set up the display of the target server under Windows XP, Windows 2003, ∻ Windows2008

Start—>Control Panel—> [Hardware]—>Dis	play
Display Properties ? X Themes Desktop Screen Saver Appearance Settings Inactive Window Active Window Window Text Message Box UK UK	Effects
Windows and buttons: Windows XP style Color scheme: Default (blue) Fort size: Normal OK Cancel Advanced	Standard       Use large icons       Show shadows under menus       Show window contents while dragging       Hide underlined letters for keyboard navigation until I press the Alt key

Please follow the steps above to finish the setting.

#### • Configure the mouse under Linux (ubuntu 10)

Input "xset m 1 1" in the Linux command line terminal and press Enter to finish the mouse setting, as shown below.

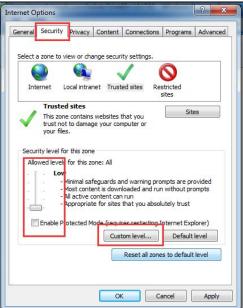


5.2 Remote WEB interface settings

Install and open IE browser, click top-right settings→ 【Internet Options】

	Diagnose Connection Problems	
1	Reopen Last Browsing Session	
	Pop-up Blocker	
ব	Manage Add-ons	
<b>R</b>	Work Offline	
	Compatibility View	
	Compatibility View Settings	
67	Full Screen	F11
	Toolbars	•
	Explorer Bars	•
₫⊳	Developer Tools	F12
	Suggested Sites	
61	Internet Options	

Click 【Security】 → 【Custom Level】

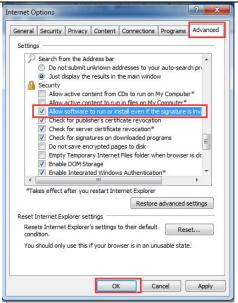


#### **[**ActiveX controls and plugins ]

	Dremot		
Activ	eX controls and plug-ins		
Land I wanted	Allow previously unused Activ	eX controls to run without	prom
	Disable		
(	Enable		
	Allow Scriptlets		
(	🕥 Disable		
(	Enable		
(	Prompt		
🧳 I	Automatic prompting for Activ	eX controls	
(	Disable		
	Enable		
🥥 E	Binary and script behaviors		
0	Administrator approved		
0	Disable		-
•	III		•
Takes ef	fect after you restart Interne	t Explorer	
10000			
eset custo	om settings		
eset to:	Medium-high (default)	▼ Re:	set

Enable  Download signed ActiveX controls  Disable  Enable (not secure)  Prompt (recommended)	*
<ul> <li>Disable</li> <li>Enable (not secure)</li> </ul>	
Enable (not secure)	
and the second se	
Prompt (recommended)	
Download unsigned ActiveX controls	
Disable (recommended)	
Enable (pot secure)	
Prompt	
Initialize and script ActiveX controls not marked as safe	e for si
Disable (recommended)	
Enable (not secure)	
Prompt	
Only allow approved domains to use ActiveX without pr Disable	rompt
Disable Epable	-
	•
*Takes effect after you restart Internet Explorer	
eset custom settings	
eset to: Medium-high (default)	set

Click [Advanced], find [Allow software to run or install even if the signature is invalid] and select it.



#### 5.3 Log in

Default Items	Default Value
User name	admin
Password	admin
IP address	192.168.1.167
Notice: For security, please chang Differentiating between capital an	e the password after the first login d lowercase letters.

#### 8 Port /16 Port / 32 Port

After connecting the device, open the Internet explorer web browser: http:// 192.168.1.167

ERNAME admin	
SSWORD •••••	¥
	LOGIN

User Name: admin Password: admin

After logging in for the first time, a prompt for loading the ActiveX will appear below the browser. Clicking "Allow" will bring up the Download Video Plugin dialog box. Click "OK" to use the video plugin.

КУМ	User management	System Settings	<b>Safety management</b>	System maintenance	Help	
lome > Port a	ccess > Port list					
				Each	page shows :	16
Number	Port name		State	Port pe	rmission	
3	Port_003		connect	cor	ntrol	
1	Port_001		close	cor	itrol	
2	Port_002		close	cor	ntrol	
4	Port_004		close	cor	itrol	
5	Port_005		close	cor	itrol	
6	Port_006		close	cor	ntrol	
7	Port_007		close	cor	ntrol	

Access status of the KVM ports, three connection status:

1.busy, 2. Connect, 3. close

- "Connect" shows the target KVM is connected to the KVM port; users can access to the target anytime.
- ☆ "close" shows that the KVM is not connected to the KVM adapter or the target server, or the target server is not boot up.
- ♦ "busy" shows that port is access by local or remote users.

#### 8 Port /16 Port / 32 Port

#### Edit Port Name:

ment system!					() Exit	
	-	F				
кум	User management	System Settings	Safety management	System maintenance	Help	
Home > Port a	ccess > Port list					
				Each	page shows : 16	
Number	Port name		State	Port p	ermission	
3	Port_003	lick to edit the por	t name connect	cc	ntrol	
1	Port_001		close	cc	ntrol	
2	Port_002		close	cc	ntrol	
4	Port_004		close	co	ntrol	
5	Port_005		close	cc	ntrol	
6	Port_006		close	co	ntrol	
7	Port_007		close	co	ntrol	

Config	ure Port_3		
Name :			
Port_0	003		
	comfirm	cancel	

#### Video Control Interface Menu



【Hide or Show Toolbar】
【Setting Option】
【Send Ctrl+Alt+Del】
【Mouse Synchronization】
【Single Mouse】
【Adaptive Window】
【Source Video params】
【Full Screen】

1) Hide or Show Toolbar

\*

When the video window starts, the toolbar is always displayed by default. Click the icon, the toolbar will automatically hide. When the mouse move out (into) from the toolbar, it hides shows).



2.1 Keyboard & Mouse Options When user has the authority (chart 5-1.1)

eyboard/mouse option Keyboard/mouse send	s Screen options Shi	ortcut options
Send the keybo	ard 🔽	Send the mouse
Mouse setting		
Single mouse cur	sor	
Single mouse ESC	Alt+F10	•
Cursor types	Arrow	•
Mouse modes setting -		
Auto	C Relative	C Absolute
Full screen		
Full screen zoom		
Save	_	Cancel

Chart 5-1.1

- Keyboard/mouse sending setting
  - Send the keyboard: keyboard data can be sent to the target server through the video window so that it can control the target server's keyboard.
  - Send the mouse: mouse data can be sent to the target server through the video window so that it can control the target server's mouse.
- Mouse Setting
  - Single mouse cursor: when single mouse chosen, target server's mouse will show and remote user's mouse will hide
  - Single mouse ESC: press the keyboard "Alt + F10" exit the single mouse mode.
  - Cursor types: it can set remote user's mouse cursor type in double mouse mode

- Mouse Mode Setting:
  - Relative mode: Relative mode is compatible with almost all the operating systems; the factory default mode is relative mode.
  - Absolute mode: The absolute mode is not compatible with LINUX operating system.
- Full Screen Setting
  - Full Screen Zoom: If the "Full Screen Zoom" is disabled, the video will be displayed in the remote full screen; If the "Full Screen Zoom" is enabled and the target server's resolution is different from the remote user computer's resolution (the resolution of the general target server is less than the resolution of the remote user computer), the video plug-in will display the screen in the middle of the screen according to the resolution of the target server.

When users only have authority to view, remote users can only view the video window and cannot control it, as shown in Chart 5-1.2.

enu		
eyboard/mouse option	Screen options Shortcut options	
Keyboard/mouse send	ling setting	
📕 Send the keybo	ard 🔽 Send the mouse	
Mouse setting		
Single mouse cur	rsor(Click the image area to take effect)	
Single mouse ESC	Alt+F10	
Cursor types	Arrow	
Mouse modes setting -		
Relative	C Absolute	
Full screen		
Full screen zoom	1	
Save	Cancel	1

Chart 5-1.2

2.2 Display option

Display option dialogue shows screen parameters and screen information, as shown in 2-3

- Frame Parameter
- Automatic calibration: The video window will automatically adjust the screen parameters of the target server to the default best effect.
- Contrast, brightness, hue and saturation: if "automatic calibration" is disabled, users can customize screen parameters of target server.
- Frame information
- Resolution: it shows the resolution of the target server. When the target server's platform is win10, it shows the resolution of video
- IP address: KVM switch's IP address
- Refresh Rate: video refresh rate
- Port number: video port number
- Manual calibration resolution: when the resolution of the target server is not consistent with the resolution of the video window, it can manually calibrate the resolution after calibration
- Target server resolution: resolution selection of manual calibration
- Target server's picture zooming: Under the win10 system, if the resolution is not the best resolution, the win10 system will zoom the video screen, and the video window cannot automatically identify whether the video source picture is zooming or not, then the user need to select the option by its own.

boar aymouse op dom	Screen optio	ns Shortcut o	ptions
rame parameter			
Automatic calibra	ition		
Contrast 191			<u> </u>
Brightness 0			
Hue 246			}
Saturation 188			
Resolution	00 x 600	IP	192.168.2.221
Refresh	60	Port	1
Manual calibratio	n resolution		
Target servers p	cture zooming(f	or Win10)	
	800 x 600		

Chart 5-1.3

#### 2.3 Keyboard Shortcuts

Support 11 keyboard shortcuts, each with a maximum of 6 keys.

It can save shortcut keys and can be directly used when logging in next time. Shown as chart 5-1.4

board/mouse options   Screen options   Shortcut options	1
Ctrl+Alt+Del	Send
Win +L	Send
Alt+Tab	Send
	Send

Chart 5-1.4

Click blank input box, virtual keyboards appear, and then key clicked on the virtual keyboard will be displayed in the input box.

	2 3	1 2		Ť	/ Shift	· /	1 4 1	1 12	14	0	v	C	2	-	inc	5
_		the second second		1	/ Shift	1 1		M	N	в	v	c	x	z	ift	
1	5 6	4 5			Enter	;	L	к	1	Н	G	F	D	S	ck A	CapsLo
	8 9	7 8	PgDn	Delete End	1 1	P [	0	I	U	Y	T	R	E	W	Q	Tab
-	/	wmLock /	PgUp	Insert Home	= Backspace	0 -	9 0	8 9	7 8	; _7	5 6	4 5	3 4	2 3	1 2	~
					F10 F11 F12	F9 F10	F8	F7 F	<sup>≈</sup> 6 F	F6	F5	F4	F3	F2	F1	.sc
					F10 F11 F12	F9 F10	F8	F7 F	=6 _F	Fé	F5	F4	F3	F2	F1	Esc

#### 3) Send -----send Ctrl+Alt+Del

Keyboard Macro: click this button, the target server will receive shortcut key.

2 Send Ctrl+Alt+Del

Bring up the task manager of target server (Windows operating system)

#### 4) Mouse Synchronization

In double mouse mode, click this button to automatically collate the current mouse, and synchronize the external mouse and internal mouse to the origin of the left corner of the video window.

## 5) Single mouse

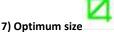
In the video window, it will hide the remote user's mouse, and only show the target server's mouse.



T

#### 6) Source video params

ource video params				
Reset				
Contrast 0				
Brightness 96	Ī —	— <u>]</u> —		
			1212	1. [
			OK	Cancel



# The initial size of the video window is 1024x768, when click this button, the video window will adjust the size of the window according to the resolution of the target server.



#### 8)Full Screen

The video window enters full screen mode

#### 6. IP Menu Option

#### 6.1 User management

User management mainly set up for adding, deleting and modifying user& user group, user name password modification, user group permissions and so on. If the user does not have user management authority, the user cannot access to user management interface. The user in this section is who have the user management authority.



#### User List

	User management	System Settings	 System maintenance	Help	
Home > Us	er management > user list				
Please ente	er the user name	find			
				Each page shows:	16
	user name	user state	user group	6	
	admin	On	SUPER_USE	2	
chows 1 to 1	items, 1 items in total				

User list interface: list all registered users, you can see more by page turning

User name or full user name search Input user name, it shows related users which make it convenient when you have a large number of users 

## Add User

Click **[add]** button, the window below appears:

Home > User management > Add user	
Add user	
username *	
Please enter the user name	
Set password *	
Please enter password	
Confirm password: *	
Please confirm the password	
User groups *	
SUPER_USER	~
comfirm cancel	

#### In this window, "\*" is required content

1) User name: user name contains only low case letter, number and "\_"

2) Enter password: without strong password protection, the password can only compose of 1-16 letters, numbers or special characters (-@. 1-); with strong password protection, the password should be filled in according to the rules of strong password protection. More details please check "security management— > security setting— > strong password"

3) User group: Select the corresponding user group

#### Delete User

lome > Us	er management > user lis	E.			
Please ente	er the user name	find			
			Each	page shows:	16
	user name	user state	user group		
	admin	On	SUPER_USER		
	user1	Off	SUPER_USER	2	
ows 1 to 2	titems, 2 items in total				
			Add	delete	

Note: admin cannot be deleted, other users can be deleted, even if they are online.

Edit user

# Click **【A1】**, edit user window pop up

ease ent	er the user name	find		
			Each page shows:	16
	user name	user state	user group	
	admin	lick to edit the user	SUPER_USER	
	user1	Off	SUPER_USER	
ows 1 to	2 items, 2 items in total			

Edit user	
username *	
user1	
Original pass	word: *
Please ent	er the original password
New passwo	rd: *
by1-16let	ters, Numbers, or special symbols o
Confirm pass	sword: *
Please cor	nfirm the password
User groups	*
SUPER USE	R

## 8 Port /16 Port / 32 Port

## User group list

Please enter th	e user group name	find			
			Each page	shows:	16
	group id		user group name		
	0		SUPER_USER		
	1		usergroup1		
shows 1 to 2 iter	ns, 2 items in total				

User group list interface: list all registered users, you can see more by page turning

- User group name search Input user group name, it shows related user groups which make it convenient when you have a large number of users
- Add user group
   Click (add) button, the window below appears

d userge									
ergroup n	alarrada 🔸 🎽								
permissi	on.								
								+ closed	- relea
	t access	user man		Contraction Contactor	-	safety managemen	t 🗆 system		
port aut			gormant t	Kysterri auton	gen Lui	karety managemen	system		
								+ closed	- relea
port									
number	port name	port access	virtual n	hedia					
1	Port_001		decline	Y					
2	Port_002 Port_003	decline V	decline	2					
4	Port_004		decline	~					
5	Port_005	dectine V	decline	1 1 1					
6		decline V	decline						
7		decline 🛩	decline	~					
		dectroe 🛩	decline	~					
9		decline M	decline	~					
10		decline 💙	decline	~					
11	Port_011	decline 😒	decline	~					
12	Port_012	decline M	decline	~					
13	Port_013	decline 💙	decline	~					
1.4	Port_014	decline 😒	decline	~					
15	Port_015	decline M	decline	~					
16	Port_016	decline ⊻	decline	<b>Y</b>					
17	Port_017	decline 😒	decline	7					
16		decline 🛩	decline	~					
1.9	Port_019	decline 💟	decline	¥					
20		decline 😒	decline	~					
21	Port_021	decline M	decline	~					
22		decline 🛩	decline	<u>&gt;</u>					
23		dectroe 😒	decline	~					
24		decline 🛩	decline	Y					
25	Port_025 Port_026	decline 💙	decline	2					
26		decline V	decline	~					
27		decline V	decline	~					
28		decline V	decline	<u> </u>					
30		decline M	decline	<u> </u>					
31	Port_031	decline 💙	decline	<u> </u>					
32		dectroe 🛩	decline	~					
	ports are rej					<ul> <li>All VM access</li> </ul>	s is denied		
	ports for vie					<ul> <li>All VM access</li> </ul>			
0 All	ports are co	ntrolled					s is read and write		

1) User group name: it only contains low case letter, number and "\_"

- Authority: mainly refers to management authority and operation authority, click show more, authority menu appears (shown in picture above), click show less, authority menu disappears
  - ♦ Port Access: Authority to access KVM, and control target server
  - ♦ User Management: user management authority
  - ♦ Device Setting: KVM device management authority
  - ♦ Security Management: security management authority
  - ♦ System Maintenance: system maintenance authority

3) Port authority: Set up access and operating authority for each port

#### Delete user group

## Select the user group you want to delete, click **[delete]**

Home > User	management > user group list			
Please enter	the user group name	find		
			Each	page shows: 16
	group id		user group name	
	0		SUPER_USER	
<b>I</b>	1		usergroup1	
shows 1 to 2 if	tems, 2 items in total			2
			Add	delete

#### Note: SUPER\_USER is system allocated which cannot be deleted

Edit user group Click 【1】 edit user group window pop up; For specific operation, please check "add user group"

Home > Use	er management > user group list		
Please enter	the user group name	find	
		Each page sho	vs: 16
	group id	user group name	
	0	SUPER_USER	
	1	usergroup1	
shows 1 to 2	items, 2 items in total	Click to edit the user grou	IP.
		Add de	lete

#### Change Password

The passwords which is using for logged user

Modify pa	ssword	
original pas	sword: *	
Please e	nter the original password	
new passw	ord: *	
Please e	ter the new password	
Confirm pa	ssword: *	
Please er	nter your new password again	

- 1) Old passwords: The passwords you are using
- 2) New passwords: Without strong password protection, the password can only compose of 1-16 letters, numbers or special characters (-@. \$! \_); with strong password protection, the password should be filled in according to the rules of strong password protection. More details please check "security management—>security setting—>strong password"

6.2 System

System Settings
Network Settings
Date/time
Encoding parameters

Networ	k	Setting
--------	---	---------

Nic set	
IPv4 address:	
192.168.0.168	
Subnet mask:	
255.255.255.0	
default gateway:	
192.168.1.1	
mac address:	
00:4a:b6:68:9a:31	
DCSG Ip:	
192.168.1.100	
DCSG Port :	

#### I P v 4 address setting:

♦ I P address: preset IP address

 $\diamond$  Subnet mask: Generally, it should be consistent with other devices in the network.

 $\diamond\,$  Default gateway: Generally, it should be consistent with other devices in the network.

♦ MAC address: physical address

 $\diamond\,$  DCSG IP: the IP address should be the same with the Authentication Server IP address

 $\diamond$  DCSG Port: the Port should be the same with the Authentication Server Port.

## Date /Time setting

۲	User setting time	e		
Set da	ite:			
2019	-03-08			
Settin	g time:			
10:2	0			
0	Synchronize with	h the NTP	server	
Time	server:			
۲	Time Zone Setti	ngs		
Select	time zone:			
East	8 (Beijing, China	a)		

System time setting:

Customized time: manual setting

■ Synchronize with the NTP server: the system automatically updates the time according to the time server

■ Time zone setting: choose time zone

**Encoding Parameters** 

coding par	ameters
Encoding para	imeters
Video formats	: PAL
Stream type:	Main stream
Frame rate:	25
IP ratio:	25
Rate limit:	6MBPS 🗸

### 6.3 Safety management



#### Security Settings

ecurity Settings	
logon restrictions	Login lock
Restrict single sign-on.	Disable lock
Enable password expiration D 50 (1~365day)	Account lock O Attempts 60
Cancellation free user 🔲 36 (1 ~ 60 minutes)	Timed lock O Attempts 60 Locking time 2 (1-14
Strong password	minutes)
Enable password strength rules	Encryption scheme
At least one lowercase letter.	Local information encryption mode. No encryption
At least one numeric character.	Encryption mode is applied to KVM and virtual media. $\hfill \square$
User password history depth. 3 Minimum/maximum password length. 1	Local device reset mode. Enable Local Fact
- 16	

Login restriction: user name login restriction

 $\diamond$  Single sign on restriction: if one user name is logged in, it can no longer log in with this user name, if it is selected, you can log in with the user name

♦ Enable passwords expiration: current password use days ranges from 1-365 days, if it is selected, the default is 50 days

 $\diamond\,$  Free user logs off: If user do not have operations after logging in a set time, the user will be logged off automatically

- Login lock
  - $\diamond$  Disable Lock: when it is selected, login lock will be canceled
  - ♦ Account lock: set trying number of times for login attempts failed

 $\diamond\,$  Timed lock: set the account lock time when account login failed attempts are over the setting number of times

Strong password

 $\diamond\,$  Enable strong password: when it is selected, the original password will be forced to be changed

 $\diamond$  Password history depth: new password cannot be the same as the latest 3 default passwords, this number can be changed, it ranges from 1-10

♦ Strong password length: From 1-bit to16 bits.

## Encryption mode

three encryption schemes

and one un-encryption scheme

 $\diamond$  Encryption mode is applied to KVM and virtual media: applied when it is selected

Audit Log

aintype:	all 🗸	subtypes all	~	date selection: 2019-03-09 00:00:00 to 2019-03-09 10:23	:29
				Each page shows :	16
number	date	maintype	subtype	description	
1	2019-03-09 08:00:07	operations	system boot	The user 'admin' 'system boot' on the host IP is '127.0.0.1'	
2	2019-03-09 08:00:11	view	get config.	The user 'admin' 'get config.' on the host IP is '192.168.0.168'	
з	2019-03-09 08:00:11	view	get config.	The user 'admin' 'get config.' on the host IP is '192.168.0.168'	
4	2019-03-09 08:00:11	view	get config.	The user 'admin' 'get config.' on the host IP is '192.168.0.168'	
5	2019-03-09 08:00:12	view	get config.	The user 'admin' 'get config.' on the host IP is '192.168.0.168'	
6	2019-03-09 08:00:12	view	get config.	The user 'admin' 'get config.' on the host IP is '192.168.0.168'	

#### 6.4 System Maintenance



Provide system maintenance tools such as test tools, data backup and restart

Home > system maintenance > backup recovery
backup recovery
backup configuration file
comfirm
recovery
restore backup recovery : recovery
factory reset
factory reset :restore factory Settings may take up to two minutes

- **Backup:** backup current system settings
- **Restore:** restore the last backup of system
- Factory reset: Restore to factory state (KVM must be restarted to take effect)

Ping Host
-----------

ing the host		
IP address		
Ping		
result		

## Test network connection state to target server

Input IP address and click 【ping】 button, if network is smooth, result returns to "ip is active"; If not, it returns to "no response from IP" (IP is tested target server's IP).

## Equipment Management

Home > System i	naintenance > equipment man	agement
equipment manag	gement	
Reboot device		
Reboot mode :	Reboot device	

## Remote upgrade

Provide users with better upgrade experience and continuous technical support

	enance > remote upgrade	
emote upgrade		
upload file		
	unselected file	upgrade

## Upgrade method:

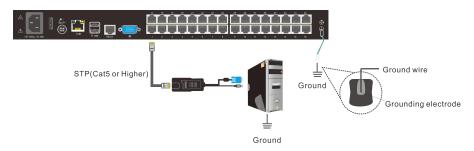
Click [browse] and select upgrade file, upload the file to the device, then click [upgrade] to finish upgrade

## Appendix

Model			HT1108	HT1116	HT1132
Computer Connection			8	16	32
Port selection			8	16	32
Port selection			Pushbutton, UI, Web, Hotkey		
	Keyboard Console Mouse		2x USB TYPE A		
•		Monitor	1-HDB-15 Female(blue)		
Connector	KVM Port (RJ-45)		8	16	32
Upgrading swite		witch	1x RJ11 Female		
	Power		3-Prong AC socket		
Port Selection		8	16	32	
Switch		1x touch-button			
Upgrading swite		witch	1x toggle switch		
	Power		1x rocker sv	vitch	
LEDs	Online (Gree	en)	8	16	32
	Selected (Or	range)	8	16	32
	Power		1(blue)		
	Cascade display		2x 7- Segme		
	Remote control		KVM contro	l (ActiveX control	)
	Management way		Web		
Remote Security		DES encryption			
Resolution		1920×1080@60Hz			
I/R Value			100V-240Vac, 50-60Hz, <1.5A		
Power Consumption		8W	9W	11 W	
Fasiliaanaant	Operating Temperature		0 − 50 °C		
Environment Requirements	Store Temp	erature	-20— 60 °C		
	Humidity		0—80%RH,	Non-condensing	
Dhuataal	Material		Metal	1	
Physical Features	Weight		2.9kg	2.9kg	3.2kg
	Dimension		433x171x44	I.5mm	

## **Grounding Requirements**

Make sure the KVM and the devices that connected to KVM are all connected to the ground.

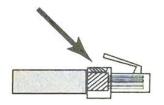


To improve the device safety, please make sure the device is connected to the ground and use the STP cable to connect the device.

The STP cable contains four shielded twisted pair and one ground wire, the ground wire should be welded into the RJ-45 connector.



Grounding the STP shield cable (as shown below) , and make sure the metal RJ45 connector is tight shield.



Connect one end of the RJ-45 connector to the ground RJ-45 connection socket.

