Cat5 KVM over IP Switch (8 Port/16 Port/24 Port/32 Port)

User Manual



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1. Product Overview

1.1 Introduction

The IP-based KVM (IP-KVM) redirects the local keyboard, mouse and video data to a remote management console. The operator can safely manage one or many computers locally at the server site or remotely via a standard internet browser. Securely gain BIOS level access to systems for maintenance, support or failure recovery over the internet.

The IP-KVM console integrates multiple KVM switches in a 1U height console. It can control multiple computers with a set of devices including monitor, keyboard and mouse; saving cost and space by consolidating the hardware to a single device.

The IP-KVM console is fast and easy to install. Simply connect corresponding cables to the correct ports of the KVM and its module without software configuration. Connect multiple computers with compact RJ-45 connectors and CAT5e/6/7 cables, transmitting distance is up to 100M.

1.2 Features

Hardware

- 18.5" LCD monitor, high definition and high resolution
- Rack-mountable in a 1U EIA system rack
- Full size keyboard with integrated number pad
- Trackball eliminates the need for a separate, external mouse
- Dual power supply

Local Console

- Control up to 8 / 16 /24 /32 computers
- Support 1 local user and 2 remote users, port share mode allows local and remote users to gain access to a server simultaneously or access different servers
- Easy-to-use switching by browser-based UI interface, hotkeys and pushbuttons
- Support servers with VGA/HDMI/DVI/DP port
- Multiplatform client support (Windows, Linux, Unix, Mac, Solaris (Sun), Redhat, Ubuntu
- Supports a graphical interface for intuitive and convenient human-computer interactionlocal resolution is up to 1366×768@60Hz
- Supports 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
- Video quality and video tolerance can be adjusted to optimize data transfer speed, up to 30 FPS
- Full screen or scalable video display
- Remote users and local users can control the same server 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
- Supports firmware upgrade

1.3 Appearance

Front View



Figure 1.1 Front View

1. LED Module	6. Touchpad
2. Rear Bracket Slot	7. Handle
3. LED OSD Controls	8. Release Catch
4. Front Bracket	9. Display panel
5. Keyboard	10. Switch LED

Structure and Size (18.5)



Figure 1.2 Size Dimension

Rear View



1. Power Input (AC)	6. RS485 Port
2. Power Switch	7. Monitor Port
3. Power Input (DC)	8. PC Connecting Port
4. LAN Port	8. Ground Screw
5. USB Port	10. /

2. Installation and Start-up

2.1 Rack Mounting

A standard rack mounting kit is provided to mount the switch in a depth of 686-770 mm in a standard 19" rack. For other mounting distances, the rear brackets need to be customized accordingly. With one person hold the switch in place, the other person slides the L bracket into the switch's side mounting brackets from the front to the back, then screws the brackets to the rack (see below installation drawing).



Figure 2.1 Rack Installation Diagram

2.2 Install KVM Components



Figure 2.2 Installation Diagram

Installation Steps:

- 1. Make sure the IP KVM switch has been connected to the ground.
- 2. Connect the KVM adapter to the PC or Server via Cat5 cable.
- 3. You can remote control the KVM switch via IP.
- 4. Using power adapter to connect the KVM into 220V AC power supply.
- 5. Power on the switch.
- 6. Connect the external keyboard, mouse and monitor (optional)

2.3 KVM Adapter

PS/2 Adapter



Model No.	Keyboard/Mouse	PC	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

LED Indicator of the KVM Adapter

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

2.4 Opening the Console

1. Disengage the release catch



Figure 2.3 Unlocking

Note: The release lock can only do horizontal locking, it doesn't bear any load.

- 2. Pull the KVM switch all the way out until it clicks into place.
- 3. Rotate the LED module all the way back to expose the LED screen, the LED module can be rotated up to 108 $^\circ\,$.





4. The KVM makes two "beep" sounds after power on, the orange light keeps flashing and an UI window appears

1	Nelcom	e to Eth	ernet Sw	ritch
	用户名。			
.	<u>क</u> ु छ।			
	□ 记住密码		口数码可见	
		登录	1	
and the second	and Contract		Contration +	-

for you to input user name and password.

User Name	admin
Password	admin

- 5. LED panel is powered on when the power LED is green.
- 6. Power on the computer or server after power on the KVM.

2.5 Closing the Switch

- Close the LED display panel and the power automatically shut down.
- Push the release catch in the direction of the arrow, push the LED panel all the way in until it automatically locks up.



Figure 2.5 Unlocking the switch

3. Operating the Monitor



Figure 3.1 Monitor adjust menu buttons

3.1 The LED OSD allows you to set up and configure the LED display.

Buttons	Functions
MENU SELECT	Brings up the main menu.
EXIT/AUTO	Exits the current menu and returns to the previous menu or exits the
	LED OSD.
SL-/SL+	Movies the menu to make corresponding adjustment.
	Green: Running
LED State	Red: Power off or access non standard VESA signal
	Flashing Green: Energy saving mode or no signal

Press AUTO if the screen migrates after power on or under other circumstances, then the screen auto-configures to its best display state.

Note:

- It may not be adjusted to its best state if part of the display mode is not standard VESA mode. If so, return back to OSD menu to RESET, then it will revert back to normal.
- It is recommended to set up the display mode at 1280 x 1024, refresh rate at 60Hz.

3.2 LED Operation



Figure 3.2 16 Port LED front views

No.	Components	Function
	1-8	Switching freely from port 1 to port 8
	1-16	Switching freely from port 1 to port 16
	Reset	Press [1] and [2] at the same time for three seconds resets the keyboard and mouse
	Scan	Press [7] and [8] at the same time for three seconds enters the auto scan mode.
1	1 Brightness -Ö: Definition	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.
		 Press 【4】 for three seconds enters definition adjusting mode. 44 are flshing on the LED tube. Then press 【5】, 【6】 to adjust. Press 【4】 exits or waits for five seconds and it will auto-exit.
	Initialize	Press [6] for three seconds will initialize the brightness and definition of each port.
2	Port Selection Buttons & LEDs	An online LED light (green) indicates that the KVM has connected to its corresponding computer and power on. A selected LED light (orange) indicates that the computer attached to its corresponding port is up and running.
3	Station ID	Display the current port



Figure 3.2 16 Port LED front views

No.	Components	Function
		Switching from port 1 to port 32
		8 Port: If you want to switch to Port 8, press 【8】, and the LED
		light display $oxed{\square B}$, then press "Enter", you will come to Port
1	0~9 +Enter	8.
		32 Port : If you want to switch to Port 32, press [3] and [2],
		the LED light displays $\boxed{\exists 2}$, and then press "Enter", you will
		come to Port 32.
		Adjust Brightness.
2	- O - (+, -)	Press \mathbf{O} , the LED light blinking with \mathbf{B} , and then press "+"
		and "-" to adjust the brightness.
		Adjust Definition
3	O (+, -)	Press $oldsymbol{\Phi}$, the LED light blinking with $oldsymbol{\square}$, and then
		press"+"and "-" to adjust the definition.
4	Station ID	Display the current port

3.3 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]

Pop up the UI interface	Double click 【Ctrl 】 Double click 【Alt 】 Double click 【Scroll Lock 】 Double click 【Caps Lock 】
Hotkeys	【L_Alt】+【L_Ctrl】 【L_Win】+【L_Ctrl】 【L_Alt】+【L_Win】

Hotkey commands are as follows: Hotkey + the corresponding function key

Function	Operating	Function Description
	+ Number	Skip ports from 1-16
Port Switch	+ 【↑】/【←】	Skip to previous port
	+ 【↓】/【→】	Skip to next port
Drichterson	+ [+]	Brightness +
ывитез	+ [-]	Brightness -

Definition	+ 【>】	Definition +
Definition	+ 【<】	Definition -
Reset Video	+ (R)	Reset the video
Lock KVM	+ 【L】	Lock KVM and a user login window appears

4. User Interface Operation

Login UI control menu

User Name	admin
Password	admin

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

lome > KVM				
ort 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 UI function instruction

No.	Menu	Submenu	Function
		User List	User Settings
1	User	User Group List	Set user group and user permission
	Management	Modify Password	Set password
		Network Settings	Set IP address, subnet mask, etc.
		Date/Time	Set date and time
2	System Settings	Device Information	Device information settings
		Encode Parameters	Video quality settings
	Serial	Serial settings	
3	Security	Security Settings	Login and password permission settings
	Management	Audit Log	Audit Log
		Backup and restore settings	Backup, restore, factory settings
4	System Maintenance	Ping host	Test the network connection status with the host
		Device management	Upgrade and restart the device

4.2 User Management

User management is 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.

a User management
Users list
User group list
Modify password

User List

Home > U	Jser management > <mark>us</mark> er lis	st	
Please ent	ter the user name	find	
			Each page shows: 16
	user name	user state	user group
	admin	On	SUPER_USER
shows <mark>1</mark> to	1 items, 1 items in total		
			Add delete

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:

User Name *	
o our runno.	
Password: *	
Confirm password: *	
User Group: *	
SUPER_USER	-

1) User name: user name can only be low case letter, number and "_"

2) Enter password: without strong password protection, the password can only composed 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) Confirm password: the confirm password should be the same as the setting password.
- 4) User group: Select the corresponding user group

User Group List

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

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

1) User group name: The user group name is composed of uppercase and lowercase English letters, numbers, and underscores.

2) Permission: mainly refers to management and operation permission. Click "show more", the permission menu appears (shown in picture above), click "show less", the permission menu disappears.

- \diamond Port Access: access to each KVM port and control target server.
- ♦ User Management: user management permission.
- ♦ Device Setting: KVM device management permission
- ♦ Security Management: security management permission
- ♦ System Maintenance: system maintenance permission
- 3) Port permission: set up access and operating permission for each port

Change password

Change the User login password.

Driginal Password : *	
New Password : *	
Confirm password : *	
nfirm password : *	
Confirm	

1) Old password: Enter the old password.

New password: Input new password. When strong password protection is not set, the password can only consist of 1-16 letters, number of special characters (-@.\$!_); if strong password protection is set, the password must be filled in according to the rules of strong password protection, please refer to "[security management]—>[security setting]" for details.

4.3 System Settings



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	
comf	irm

IP address setting:

- ♦ IP address: preset IP address
- ♦ 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

- \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

Settings System S	Settings > Date Settings
Date Settings	
User setting time	
Date Settings:	
1970-01-14	
Time Setting:	
13:48:29	
 Synchronize with th Time server: 	ne NTP server:
202.120.2.101	
Select time zone:	
202.120.2.101 Select time zone: West 12 (central Pacific)	•

System time setting:

- User-defined time: manually set by the user.
- Synchronize with NTP server: the system automatically updates the time according to the time server.

Device Information

/M User	System	Security	Maintain	Help	Q
Home> System Se	ttings > Equipment in	nformation			
Device name					
IPKVM					
KVM Hot-key					
Double-click the le	eft Ctrl 👻				
Function Hot-Ke	у				
IAlt + ICtrl + Functi	on key 👻				
Setting Module E	DID				
1280X1024	-				
OF	1				
Function key tabl	e				
1,2,3n	Switch the p	port			
+	VGA Bright	+			
-	VGA Bright	-			
>	VGA Gain -	E.			
<	VGA Gain -	- 7			
Ļ	Switch Next	port			
Ť	Switch Prev	ious port			
\rightarrow	Switch Next	port			
↔	Switch Prev	ious port			
L	Logout				
P	Reset VGA				

KVM Hotkeys	Left [Ctrl] + Left [Ctrl] Left [Alt] + Left [Alt] [Scroll Lock] + [Scroll Lock] [Caps Lock] + [Caps Lock]
Function Hotkeys	Left 【Alt】 + Left 【Ctrl】 Left 【Win】 + Left 【Ctrl】 Left 【Alt】 + Left 【Win】
Set Module EDID	1280*1024 1366*768 1920*1080 Auto

Encoding Parameters

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

Video format: PAL format

Stream type: high definition of the main stream, low definition of the secondary stream Frame rate: the number of frames encoded per second

IP ratio: the ratio of I and P frames per second

Upper limit of code rate: the maximum code rate of encoding channel (1-12MBPS)

Serial



4.4 Security Management



Security Settings

gon restric	Login lock
Restrict single sign-on.	O Disable lock
password expiration 50 Day	Account lock try 60
Cancellation user 36 (1~365minutes)	Timed lock try 60 Locking 2 (1-1440minutes)
Enable password	Local info encryption mode No ENCRYPTION -
rong	Encryption s
Contain Invercase Contain Unpercase	
Contain lowercase Contain uppercase	Economical mode in applied to 10/M and victual
	Encryption mode is applied to KVM and virtual
assword depth	
in/may length 1 - 16	

- Login restriction: user name login restriction
- Single sign on restriction: if one user name is logged in, it can no longer log in with this user name.
- Enable passwords expiration: current password use days ranges from 1-365 days, if it is enabled, the default is 50 days.
- ✤ Free user logs off: After the user logs in, it there is no operation, and when the set time is exceeded, the user automatically logs out and exits.
- Login Lock
- ♦ Disable Lock: when it is selected, login lock will be canceled.
- ♦ Account Lock: set trying number of times for login attempts failed.
- Timed Lock: set the account lock time when account login failed attempts are over the setting number of times.
- Strong password
- ✤ Enable strong password: when it is selected, the original password will be forced to be changed.
- 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 to 16 bits.
- Strong password
- ♦ Enable strong password: when it is selected, the original password will be forced to be changed.
- 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 to 16 bits.
- Encryption mode

DES AES128

♦ Local information encryption mode: AES255 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 👻	subtypes: ALL	-	Search
Num	Date	Event		Instructions			
01-01							
01-02							
01-03							
)1-04							
01-05							
)1-06							
01-07							
01-08							
01-09							
)1-10							
)1-11							
01-12							
)1-13							
)1-14							
)1-15							
)1-16							

4.5 System Maintenance

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 the host

	Home > System maintenance > Ping the host
	IP address : Ping
Equipment Management	
	Home > System maintenance > equipment management
	Local upgrade mode:
	Update Device
	Reboot Mode:
	Reboot Device
	screen resolution
	1280X1024 -

5. Remote Control

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:

- The IP KVM switch supports below two mouse mode:
- ♦ 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.

1) 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, Windows 7, Windows 8, Windows 10.

♦ Set Mouse Precision

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

uttons Poir	iters	Pointer Opl 1	tions N	Wheel	Hardwa	are		
Modon	elect a	pointer spe	eed:	— F.	ast		2	
F]Enha	ance pointe	r precis	ion			3	
]Auto	matically m	ove poi	nter to t	he defau	alt butto	n in a 4	
Visibility] Auto dialo] Disp	matically m g box ay pointer t	ove poir trails	nter to t	he defai	ilt butto	nina 4	
Visibility Visibility S] Auto dialo] Disp hort	matically m g box ay pointer t pointer wh	ove poi trails ile typin	-Ç⊥ g	he defai	ilt butto	nina 4	
] Auto dialo	matically m g box ay pointer t pointer wh + location o	rails ile typin of pointe 5	-() L g er when	he defai ong I press t	lt butto	n in a 4	

Please follow the steps above to finish the setting.

2) Set up the display of the target server under Windows XP, Windows 2003, Windows 2008.

[Start] -> [Control Pane] -> [Hardware] -> [Display}

Active Wind	W.		
Window Text	Message Box 🛛 🔀		Effects
	OK.		Use the following transition effect for menus and tooltips: 3
			Fade effect
		M	I se the following method to smooth edges of screen fonts:
			Standard
Windows and buttons:			Standard V
Windows and buttons: Windows XP style	×		Standard V Use large icons
Windows and buttons: Windows XP style Color scheme:	<u>×</u>		Standard Use large icons Show window contents while dragging
Windows and buttons: Windows XP style Color scheme: Default (blue)	<u>v</u>	2	Standard Use large icons Show shadows under menus Show window contents while dragging Show window contents while dragging Show window contents while dragging
Windows and buttons: Windows XP style Color scheme: Default (blue) Font size:	~	2 Effects	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 11" in the Linux command line terminal and press [Enter] to finish the mouse setting, as shown below.

File	Edit	View	Search	Terminal	Help
kinar kinar	n@ubun n@ubun	tu:~\$ tu:~\$	xset m	1 1	

5.2 Remote WEB interface settings

Install and open IE browser, click top-right settings—> [Internet Options]

	Diagnose Connection Problem	lS
	Reopen Last Browsing Session	
-1	Pop-up Blocker	
ব	Manage Add-ons	
R	Work Offline	
	Compatibility View	
	Compatibility View Settings	
đ	Full Screen	F11
	Toolbars	
	Explorer Bars	
de>	Developer Tools	F12
	Suggested Sites	
61	Internet Options	

Click [Security] -> [Custom Level]

Internet Local intranet Trusted sites Trusted sites This zone contains websites that you trust not to damage your computer or	Restricted sites
Trusted sites This zone contains websites that you trust not to damage your computer or	Siter
your files.	JIES
Allowed levels for this zone: All Allowed levels for this zone: All Allowed levels for this zone: All Allowed levels for this access and warning All of the solution of th	prompts are provided I run without prompts bsolutely trust
Custom level	Default level

[ActiveX controls and plugins]

cungs			
-	Prempt		*
Activ	/eX controls and plug-ins		
	Allow previously unused ActiveX c	ontrols to run without pror	_
-	Disable		
	Enable		
	Allow Scriptlets		
-	Disable		
	Enable		
	Prompt		
	Automatic prompting for ActiveX c	ontrols	
_	Disable		
	Enable		
	Binary and script behaviors		
	Administrator approved		
	Disable		-
•	III	•	
Takes ef	fect after you restart Internet Ex	plorer	
set cust	om settings		_
set to:	Medium-high (default)	▼ Reset	

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

General	Security	Privacy	Content	Connections	Programs	Advanced
Setting	s –					
<i>چ</i>	Search fro Do no Just d Security Allow	om the Ad t submit u lisplay the active cor	dress bar nknown ad results in t itent from (dresses to you he main windo CDs to run on N	r auto-sear w 4y Compute Computer*	ch pri
	Allow Check Check On no Empty Enable	software for publis for serve for signa t save end Tempora DOM Sto Integrat	to run or in her's certificato tures on do crypted pag ry Internet orage ed Window	stall even if the icate revocatio e revocation* ownloaded prog ges to disk : Files folder wh is Authenticatio	e signature i n grams nen browser	s inv
10000	kes effect	after you	restart Int	ernet Explorer	-	
*Tal				Destare	advanced s	ettings
*Ta				Restore		in congo
*Tal Reset I Rese cond You	nternet Ex ts Interne ition. should only	plorer set t Explorer v use this i	tings s settings f your brov	to their default	Res	et

5.3 Log in

Default Items	Default Value
User Name	admin

Password	admin
IP Address	192.168.1.167
Notice: For security, please char	nge the password after the first login
differentiating between capital and lo	owercase letters.

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

USERNAME	admin	4	
PASSWORD	•••••	¥	
		LOGIN	
Default Ite	ems	Default	Value
User Nam	e	admii	n
Password	1	admii	n

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.

nent system!					۵	Exit
(A) KVM	User management	System Settings	D Safety management	System maintenance	Help	
Home > Port a	ccess > Port list					
				Each	page shows :	16
Number	Port name		State	Port pe	rmission	
3	Port_003		connect	control		
1	Port_001		close	control		
2	Port_002		close	control		
4	Port_004		close	control		
5	Port_005		close	col	ntrol	
6	Port_006		close	col	control	
			(3 1)	co.		

Video Access: KVM port access 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.
- \diamond "busy" shows that port is access by local or remote users.

Edit Port Name:

ent system!					🕞 Exit
() KVM	S User management	System Settings	Safety managemen	T System maintenance	Help
lome > Port a <mark>cce</mark>	ess > Port list				
				Each p	age shows : 16
Number	Port name		State	Port per	mission
3	Port_003 C	lick to edit the port	nameconnect	control	
1	Port_001		close	control	
2	Port_002		close	control	
4	Port_004		close	control	
5	Port_005		close	control	
6	Port_006		close	cont	trol
7	Port 007		close	coni	trol

Home	> System Setting	gs > Configure p	ort	
Configu	ire Port_3			
Name :				
Port_0	03			
	comfirm	cancel		

5.4 Video Control Interface Menu



[Full Screen]

1) Hide or Show Toolbar

When the vide window starts, the toolbar is always displayed by default.

Click the icon, the toolbar will automatically hide. If the mouse is moved to the toolbar position again, the toolbar will be displayed.

2) Setting Options

2.1 Keyboard & Mouse Options

When user has the operating permissions

eyboard/mouse option (eyboard/mouse send	s Screen options Sh ing setting	nortcut options
Send the keybo	ard 🔽	Send the mouse
louse setting		
Single mouse cur	sor	
Single mouse ESC	Alt+F10	•
Cursor types	Arrow	•
Nouse modes setting -		
Auto	C Relative	C Absolute
-ull screen		
Full screen zoom		
(Saug	-	Cancel

- 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 permission to view, remote users can only view the video window and cannot control it.

lenu				
Keyboard/mouse option	s Screen or	otions Sh	ortcut option:	s
Keyboard/mouse send	ing setting -			
🗖 Send the keybo	ard	Г	Send the m	ouse
Mouse setting				
Single mouse cur	sor(Click the	image <mark>are</mark> a	a to take effe	ct)
Single mouse ESC	Alt+F10			•
Cursor types	Arrow			•
Mouse modes setting -				
Relative		C	Absolute	
Full screen				
Full screen zoom	()			
Caura	1			
Save			Canc	ei

2.2 Display option

Display option dialogue shows screen parameters and screen information

- > 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.

board/mouse	options Screen opt	ons Shortcut of	otions
ame paramete	er		
Automatic	calibration		
Contrast	191		_ <u>_</u>
Brightness			
Hue	246		}
Saturation	188		
ame informati Resolution	on	IP	192.168.2.221
Refresh	60	Port	1
Manual ca	libration resolution		
Target se	rvers picture zooming	(for Win10)	
Resolution of	target 800 x 600	T	

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.

Ν

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

Click the blank input box to display the virtual keyboard, and click the keys on the virtual keyboard to display the input box.

Virtual keyboard		10 1 100		
Esc F1 F2 F3 F4 F5	F6 F7 F8 F9 F10 F11 F12			
~ 1 2 3 4 5 6	7 8 9 0 - = Backspace	Insert Home PgUp	JumLoci / *	-
Tab Q W E R T Y	U I O P [] \	Delete End PgDn	7 8 9	
CapsLock A S D F G	H J K L ; ' Enter		4 5 6	+
Shift Z X C V B	3 N M , . / Shift	<u>t</u>	1 2 3	_
Ctrl Win Alt Spa	ace Alt Win Menu Ctrl	← ↓ →	0 ,	Enter

3) Send -----send Ctrl+Alt+De



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

Send Ctrl+Alt+Del

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



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.

6)	Source	video	params
~,	000.00		paramo

Reset				
Contrast	0	i		
Brightness	96	Ī —	—J-	
				 1

7) Optimum size

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 enter 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 permission, the user cannot access to user management interface. The user in this section is who have the user management permission.

Ser management
Users list
User group list
Modify password

User List

KVM	User management	System Settings	Safety management	System maintenance	Help	
Home > U	ser management > <mark>user lis</mark> t					
Please ent	er the user name	find				
				E	ach page shows:	1
	user name	user state		user group		
				SUDED USED		
	admin	On		JUFER_UJER		
hows 1 to	admin 1 items, 1 items in total	On		JUPLA_UJLA		

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 composed 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

Delete User

Select the user you want to delete, click [delete]

Home > U	<u>ser management ></u> user lis	t	
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
shows 1 to	items, 2 items in total		*
			Add delete

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

Edit user

Click [1234], edit user window pops up

Home > U	ser management > user lie	st		
Please ent	er the user name	find		
			Each page shows:	16
	user name	user state	user group	
	admin	ick to edit the user	SUPER_USER	
	user1	Off	SUPER_USER	
shows <mark>1</mark> to	2 items, 2 items in total			
			Add delete	

Home > User management > Edit use	er
Edit user	
username *	
user1	
Original password: *	
Please enter the original password	
New password: *	
by1-16letters, Numbers, or special sy	ymbols c
Confirm password: *	
Please confirm the password	
User groups *	
SUPER_USER	

User group list

Please ente <mark>r</mark> t	he user group name	find		
				Each page shows: 16
	group id		user group name	
	0		SUPER_USER	
	1		usergroup1	
nows 1 to 2 ite	ems, 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

NUMBER OF	anne i 👘							
wormoos:	arts.						a closed	-
L per	t access	Lat user mana	woment L	Li system Settings L	2 subdy management	L system		
Wart ALUSS	southy.						in the second second	-
amber	port name	port access	virtual m	sector				
	HORE DOLE	rks (inc. 😌	ck 5.0 m	9				
2	Post_002	denine 😪	decline					
-	14/1/T 1011-0	+ b = there with	-6-074-	2				
-	Purt_004	decine 😪	decline	S				
4	PORT DELA	sheatan 🐨	she hear.	~				
6	PurL_006	desilne	stauties	\checkmark				
2	PONT_007	1 k in 10 m - 🛩	184.0181	3				
	Purt_008	dedine 😪	decline	~				
*	Port_009	skachuro 😒	dischart.	~				
10	INHE DED	ulauline 😒	abanditrise	2				
5 B	Port_011	charline 🐨	stactory	Y				
1.4	Post 012	sheefine 😒	decline	~				
17	Prort_01.3	decime 😒	dection	~				
2.0	Port 014	ducting w	shouttene	*				
15	Port_015	decine 😪	decline	2				
16	14017 0126	ekselbue 😒	decise)	~				
17	Port_017	distine 😒	dactron	~				
1.05	POUR USE	deschine 🐭	Alteredited)	2				
19	Purl_019	decline 😪	decline	1				
199.8	HADRE ANDER	+ E -= 12+++	1. b = 11+a -					
	PurL_031	steatine 😌	dectrie	~				
2.2	POR. NA	ak with a 🖓	una la par-	2				
23	Port_023	dedine [😪]	decline	~				
>-7	Print_024	+h = here -	dea bywy	~				
20	Port_025	dedine	dectrie	>				
26.	Port_026	ska ma	dectroit	~				
27	Post 027	dedine 😒	decline	~				
20	Port_020	eksettaster 🛩	riescherer	Y				
253	Post 029	decime 😪	deptine	2				
20	Port_0.30	derine 😒	decine	2				
# 1	Post US1	Adam (Break	sheathne	2				
3.7	Port_032	and no [9]	dection	Y				
C) A8		erred			C) - All uns access	is decied		
() AI	picela for vio	and the second se			C All VH account	le road unity		
C2 .88	points are con	uno lient			C) All VIN annexe	is read and write		

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

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

- ♦ Port Access: Permission to access KVM, and control target server
- ♦ User Management: user management permission
- ♦ Device Setting: KVM device management permission
- ♦ Security Management: security management permission
- ♦ System Maintenance: system maintenance permission

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

Delete user group

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

Home > Use	r management > user group list			
Please enter	the user group name	find		
			Each pa	ge shows: 16
	group id		user group name	
	0		SUPER_USER	
☑ 1	1		usergroup1	
shows 1 to 2 if	tems, <mark>2</mark> 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"
```

Change Password

The passwords which is using for logged user

Home > User management > Modify password
Modify password
original password: *
Please enter the original password
new password: *
Please enter the new password
Confirm password : *
Please enter your new password again
comfirm cancel

1) Old password: Enter the old password.

2) New password: Input new password. When strong password protection is not set, the password can only consist of 1-16 letters, numbers or special characters (-@.\$!_); if strong password protection is set, the password must be filled in according to the rules of strong password protection, Please refer to "[security management]—>[security setting] —>[strong password] " for details.

6.2 System Settings



Network Settings

lic set	
Pv4 address:	
192.168.0.168	
ubnet mask:	
255.255.255.0	
lefault gateway:	
192.168.1.1	
nac address:	
00:4a:b6:68:9a:31	
OCSG Ip:	
192.168.1.100	
DCSG Port :	
5500	

I P v 4 address setting:

- ♦ I P address: preset IP address
- ♦ 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

۲	User setting time
Set	date:
20	19-03-08
Sett	ing time:
10:	20
0	Synchronize with the NTP server
LIM	e server:
۲	Time Zone Settings
Sele	ct time zone:
Ea	st 8 (Beijing, China)

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

17

Home > Syste	em Settings > Encoding parameters
Encoding para	meters
Encoding para	ameters
Video formats	: PAL
Stream type:	Main stream
Frame rate:	25
IP ratio:	25
Rate limit:	4MBPS V
1	confirm cancel

Video format: PAL format

Stream type: high definition of the main stream, low definition of the secondary stream

Frame rate: the number of frames encoded per second

IP ratio: the ratio of I and P frames per second

Upper limit of code rate: the maximum code rate of encoding channel (1-12MBPS)

Serial port setting

Home System Se	attings Serial port setting
Serial port settin	g
Baud rate	50 🗸
Check bit	No 🗸
C	onfirm

6.3 Security Management



Security Settings

Home > safety management > Security Settings	
Security Settings	
logon restrictions	Login lock
Restrict single sign-on.	Disable lock
Enable password expiration 50 (1~365day)	Account lock O Attempts 60
Cancellation free user 36 (1 ~ 60 minutes)	Timed lock O Attempts 60 Locking time 2 (1-1440
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.
User password history depth. 3 Minimum/maximum password length. 1	Local device reset mode. Enable Local Fact
- [16]	
confirm cancel	

Login restriction: user name login restriction

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
- ✤ 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
- ♦ Timed lock: set the account lock time when account login failed attempts are over the setting number of times
- Strong password
- ♦ Enable strong password: when it is selected, the original password will be forced to be changed
- 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

\diamond Strong password length: From 1-bit to16 bits.

Encryption mode

DES
AES128
AECOSA

♦ Local information encryption mode: AES256

three encryption schemes and one un-encryption scheme.

♦ Encryption mode is applied to KVM and virtual media: applied when it is selected.

Audit Log

naintype:	ali 🗸	subtypes all	~	date selection: 2019-03-09 00:00:00 to 2019-03-09 10:23 search	3:29
				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'	
3	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. Backup& recovery

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)

```
equipment Management
```

Home > System r	naintenance > equipment mana	agement
equipment manag	jement	
Reboot device		
Reboot mode :	Reboot device	

Remote upgrade

Provide users with better upgrade experience and continuous technical support

Home > <u>System maint</u>	<u>enance ></u> remote upgrade	
remote upgrade		
upload file		
browse	unselected file	upgrade

Upgrade method:

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

7. Appendix

7.1 Specifications

Model		HT5808	HT5816	HT5824	HT5832	
Computer Connections	Direct	8	16	24	32	
computer connections	Max	8	16	24	32	
Port Selection	Keyboard, Mouse	Button, UI, Web, Hotkey				
	Model	WXGA TFT				
LED Monitor	View Area	18.51″				
	Optimum Resolution	1366×768@60Hz				
	Color	16.7 M				
	Brightness		250cd/m ² ((Тур)		
	Contrast Ratio		1000:1 (Тур)		
	Pixel Pitch(mm)	0.300(H) × 0.300(W)				
Maura	X/Y Resolution	>1000 points / inch, (40 points/mm)				
wiouse	Scroll Wheel	Supports Scroll Wheel function				
Keyboard		99 keys (82 keyboard + 17 number pad)				
Remote Control		KVM Control (A9ctiveX)				
Downsto	Management	Web				
Remote	Security	DES Encrypted				
	Resolution	1920×1080@60Hz				
Power Input		100V- 240Vac , 50-60Hz , <1.5A				
Mounting distance		686-770mm (L=262mm)				
		Mounting bracket can be customized for other				
		mounting distance				
Power Consumption		29W	31W	33W	35W	
Operating Temperature		0−50 °C				
Store Temperature		-20 −60 °C				
Humidity		0—80% RH, non-condensing				
1	Net Weight	11.7 kg	11.7kg	11.9kg	11.9kg	
Product Di	mension (W × D × H)		448mm×560n	nm×42.5mm		
Package Dimension (W × D × H)			765mm×615r	nm×185mm		

7.2 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.

