

# **F200 Series LED Monitor**

User's Manual





# Foreword

## General

This manual introduces the installation, functions and operations of the monitor (hereinafter referred to as "the Device"). Read carefully before using the device, and keep the manual safe for future reference.

## Models

This manual is applicable to Dahua F200 Series Monitor models. Includes: DHI-LM22-F200/DHI-LM24-F200.

## **Safety Instructions**

The following signal words might appear in the manual.

Signal Words	Meaning
	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
<sup>©</sup> <sup></sup> TIPS	Provides methods to help you solve a problem or save time.
	Provides additional information as a supplement to the text.

## **Revision History**

Version	Revision Content	Release Time				
V1.0.0	First release.	February 2024				

## **Privacy Protection Notice**

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

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## **About the Manual**

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.



# **Important Safeguards and Warnings**

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

## **Transportation Requirements**



Transport the device under allowed humidity and temperature conditions.

### Storage Requirements



Store the device under allowed humidity and temperature conditions.

### Installation Requirements

Anger

Stability Hazard

Possible result: The device might fall down and cause serious personal injury.

Preventive measures (including but not limited to):

- Only use cabinets and brackets specified for the device.
- Only use furniture and structures that can safely support the device.
- Do not place the device on the edge of the furniture or structure that is supporting it.
- Always educate children about the dangers of climbing furniture to reach the device and its controller.
- Carefully arrange the cables connected to the device to avoid people tripping over them and pulling on them.
- Make sure that the device is installed on a stable surface.
- Do not put the device on tall furniture, such as cabinets and bookcases, without first ensuring that the supporting structure is stable enough to bare the device.
- Do not place the device on fabric and other similar material.
- Do not place items, such as toys and remote controls, that may entice children to climb on top of the device or furniture on which the device is placed.



- Do not connect the power adapter to the device while the adapter is powered on.
- Strictly comply with the local electrical safety code and standards. Make sure that the ambient voltage is stable and meets the power supply requirements of the device.
- Do not connect the device to two or more kinds of power supplies, to avoid safety risks and damage to the device.
- Please follow the electrical requirements to power the device.
  - Following are the requirements for selecting a power adapter.
    - The power supply must conform to the requirements of IEC 60950-1 and IEC 62368-1 standards.
    - The voltage must meet the SELV (Safety Extra Low Voltage) requirements and not exceed ES-1 standards.
    - When the power of the device does not exceed 100 W, the power supply must meet LPS requirements and be no higher than PS2.
  - We recommend using the power adapter provided with the device.
  - When selecting the power adapter, the power supply requirements (such as rated voltage) are subject to the device label.



- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the device in a place exposed to sunlight or near heat sources.
- Keep the device away from dampness, dust, and soot.
- Use an adapter or cabinet power supply provided by the manufacturer.
- The device is a class I electrical appliance. Make sure that the power supply of the device is connected to a power socket with protective earthing.
- When installing the device, make sure that the power plug can be easily reached to cut off the power.
- This is a class A product. In a domestic environment this may cause radio interference in which case you may be required to take adequate measures.
- Install the Device on a stable surface to prevent it from falling.
- Install the device in a well-ventilated place, and do not block its ventilation.
- The signal output devices and the LCD Display must be on the same grounding, and the earth impedance must be less than 1 Ω.



## **Operation Requirements**

### A DANGER

• A The device or remote control contains button batteries. Do not swallow the batteries due

to the risk of chemical burns.

Possible result: The swallowed button battery can cause serious internal burns and death within 2 hours.

Preventive measures (including but not limited to):

- Keep new and used batteries out of reach of children.
- If the battery compartment is not securely closed, stop using the product immediately and keep out of reach of children.
- Seek immediate medical attention if a battery is believed to be swallowed or inserted inside any part of the body.
- Battery Pack Precautions

Preventive measures (including but not limited to):

- Do not transport, store or use the batteries in high altitudes with low pressure and environments with extremely high and low temperatures.
- Do not dispose the batteries in fire or a hot oven, or mechanically crush or cut the batteries to avoid an explosion.
- Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.

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- Use the standard power adapter. We will assume no responsibility for any problems caused by the use of a nonstandard power adapter.
- Use the power cords that are recommended for the region and conform to the rated power specifications.
- In a domestic environment this may cause radio interference in which case you may be required to take adequate measures.
- Ground the device to protective ground before you power it on.



- Do not drop or splash liquid onto the device, and make sure that there is no object filled with liquid on the device to prevent liquid from flowing into it.
- Operate the device within the rated range of power input and output.



- Do not disassemble the device without professional instruction.
- Use the device under allowed humidity and temperature conditions.
- Check whether the power supply is correct before use.
- Operating temperature: 0 °C to 40 °C (32 °F to 108 °F).

#### **Maintenance Requirements**

## Anger

Replacing unwanted batteries with the wrong type of new batteries might result in explosion.

Preventive measures (including but not limited to):

- Replace unwanted batteries with new batteries of the same type and model to avoid the risk of fire and explosion.
- Dispose of the old batteries as instructed.

## $\wedge$

- Power off the device before maintenance. Do not use the liquid cleaner or spray cleaner when cleaning the device.
- Use the clean and soft cloth or use the special lens wiping cloth when cleaning the surface of display screen. Do not use the wet cloth to clean the display screen. Otherwise, it may do harm to the screen.
- The appliance coupler is a disconnection device. Keep it at a convenient angle when using it.



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# **Product Information**

## 1. Packing list

The product package should include the following items:

- Monitor × 1
- Stand × 1(DHI-LM22-F200)
- Base × 1
- Adapter × 1
- HDMI Cable(1.5m) × 1
- Electronic manual QR code label × 1
- Safety card × 1
- QSG × 1
- EEI LABEL × 1 DHI-LM22-F200





## 2. Monitor Adjustments

#### Set-up Stand & Base

Please setup or remove the base following the steps as below.

Please place the monitor on a soft and flat surface to prevent the scratch.

#### Setup:



DHI-LM22-F200

DHI-LM24-F200

**Remove:** 



DHI-LM22-F200

DHI-LM24-F200



#### **Adjusting Viewing Angle**

To achieve the best viewing experience, it is recommended that the user can make sure they are able to look at their whole face on the screen, then adjust the monitor's angle based on personal preference.

Hold the stand so you will not topple the monitor when you change the monitor's angle.

You are able to adjust the monitor as below:



## Notes:

Do not touch the LCD screen when you change the angle. Touching the LCD screen may cause damage.



- To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.



## 3. Button Description

#### Hotkeys



#### Menu/Enter

Press to display the OSD or confirm the selection.

#### Power

Press the Power button to turn on/off the monitor.

#### Image Ratio/Volume/>

When there is no OSD, Press > Volume button to active volume adjustment bar, Press < or > to adjust volume.

#### Source/Auto/Exit

When the OSD is closed, press Source button will be Source hot key function.

Press Source button continuously to select the input source showed in the message bar, press Menu/Enter button to change to the source selected.



## 4. Cable Connection



- 1. HDMI
- 2. Analog (D-Sub 15-Pin VGA cable)
- 3. Earphone
- 4. Power

#### **Connect to PC**

- 1. Connect the power cord to the back of the display firmly.
- 2. Turn off your computer and unplug its power cable.
- 3. Connect the display signal cable to the video connector on the back of your computer.
- 4. Plug the power cord of your computer and your display into a nearby outlet.
- 5. Turn on your computer and display.

If your monitor displays an image, installation is complete. If it does not display an image, please refer to Troubleshooting.

To protect equipment, always turn off the PC and LCD monitor before connecting.



## 5. Menu Description

Basic and simple instruction on the control keys.

< <b>•</b> ••	A Image Setup	Color Setup	Picture Boost		Statup		Game Setting	X Extra	¶ Exit
Contrast									
Brightness	_		DCR		Off				
Eco mode			HDR Mode		Off				

- 1. Press the **Menu-button** to activate the OSD window.
- 2. Press < Left or > Right to navigate through the functions. Once the desired function is highlighted, press the III Menu-button to activate it, press < Left or > Right to navigate through the sub-menu functions. Once the desired function is highlighted, press III Menu-button to activate it.
- 3. Press < Left or > Right to change the settings of the selected function. Press 🔂 to exit. If you want to adjust any other function, repeat steps 2-3.
- OSD Lock Function: To lock the OSD, press and hold the III Menu-button while the monitor is off and then press () power button to turn the monitor on. To unlock the OSD press and hold the III Menu-button while the monitor is off and then press () power button to turn the monitor on.

Notes:

- If the product screen size is 4:3 or input signal resolution is native resolution, the item of "Image Ratio" is disabled.
- 2. One of Clear vision, DCR, Color Boost, and Picture Boost functions is activated; the other three functions are turned off accordingly.



## 6. Operation Menu (OSD) Function Descriptions

## Luminance

< 🔆 >	Image Setu	p Color Setup	o Picture	Boost OSD Setup Game Setting Extra Exit							
Contrast Brightness		] 50 ] 90	Gamma DCR	<ul> <li>Gamma 1 ►</li> <li>Off ►</li> </ul>							
Eco mode	◀ Standar	d 🕨	HDR Mode	<ul> <li>Off</li> </ul>							
	Contrast	0-100		Contrast from Digital-register.							
	Brightness	0-100		Backlight Adjustment.							
		Standard	>	Standard Mode.							
		Text	T	Text Mode.							
		Internet	E	Internet Mode.							
	Eco mode	Game		Game Mode.							
		Movie	()	Movie Mode.							
-0-		Sports	R	Sports Mode.							
		Reading	R	Reading Mode.							
		Gamma1		Adjust to Gamma 1.							
	Gamma	Gamma2		Adjust to Gamma 2.							
		Gamma3		Adjust to Gamma 3.							
		Off		Disable dynamic contrast ratio.							
	DCR	On		Enable dynamic contrast ratio.							
		Off		Optimized for the color and contrast of the picture,							
		HDR Picture		which will simulate showing the HDR effect. Note:							
	HDR Mode	HDR Movie		When HDR is not detected, the HDR Mode option is							
		HDR Game		displayed for adjustment.							

Notes:

When "HDR Mode" is set to "non-off", the items "Contrast", "Eco Mode", "Gamma" cannot be adjusted.



## Image Setup

	Color Setup	Picture Boost	OSD Setup	Game Setting	X Extra	Exit	
Clock	50		<sup>D</sup> osition	50			
Phase	50		osition	50			
Sharpness	50						

Clock	0-100	Adjust picture Clock to reduce Vertical-Line noise.
Phase	0-100	Adjust Picture Phase to reduce Horizontal-Line noise.
Sharpness	0-100	Adjust picture sharpness.
H. Position	0-100	Adjust the horizontal position of the picture.
V. Position	0-100	Adjust the vertical position of the picture.



## **Color Setup**

< 💑 > -	Picture Boost	OSD Setup	Game Setting	) Extra	Exit	Luminance	The set	up
Color Temp.			_	5		DCB Mode	Off	
Color Gamut	Panel Native		n 💻	5		DCB Demo	Off	
LowBlue Mode	Off			5				

	Warm	Recall Warm Color Temperature from EEPROM.				
	Normal	Recall Normal Color Temperature from EEPROM.				
Color Temp.	Cool	Recall Cool Color Temperature from EEPROM.				
	User	Restore Color Temperature from EEPROM.				
	Panel Native	Standard color space panel.				
Color Gamut	sRGB	Recall sRGB Color Temperature from EEPROM.				
Reading / Office / LowBlue Mode Internet / Multimedia / Off		Decrease blue light wave by controlling color temperature.				
Red	0-100	Red gain from Digital-register.				
Green	0-100	Green gain from Digital-register.				
Blue	0-100	Blue gain from Digital-register.				
	Off	Disable DCB Mode.				
	Full Enhance	Enable Full Enhance Mode.				
	Nature Skin	Enable Nature Skin Mode.				
DCB Mode	Green Field	Enable Green Field Mode.				
	Sky-blue	Enable Sky-blue Mode.				
	Auto Detect	Enable AutoDetect Mode.				
DCB Demo	On / Off	Disable or Enable Demo.				



## **Picture Boost**



	Bright Frame	On or Off	Disable or Enable Bright Frame.
	Frame Size	14-100	Adjust Frame Size.
	Brightness	0-100	Adjust Frame Brightness.
	Contrast	0-100	Adjust Frame Contrast.
	H. position	0-100	Adjust Frame horizontal Position.
	V. position 0-100		Adjust Frame vertical Position.
	Bright Frame	On / Off	Disable or Enable Bright Frame.

### **OSD Setup**



	Language		Select the OSD language.
	Timeout	5-120	Adjust the OSD Timeout.
0	H. Position	0-100	Adjust the horizontal position of OSD.
	V. Position	0-100	Adjust the vertical position of OSD.
	Transparence	5-120       Adjust the OSD Timeout.         0-100       Adjust the horizontal position of OSD.         0-100       Adjust the vertical position of OSD.         e       0-100         Adjust the transparence of OSD.         Break reminder if the user continuously	Adjust the transparence of OSD.
	Break Reminder	On / Off	Break reminder if the user continuously works for more
	Break Reminder	On / Off	



## Game Setting

< 🖓 >	Extra Exit		t Luminance	Image Setup		Color Set		Picture Boost		OSD Setup	
Game Mode	Off		Game Color				Frame Counter		Off		
Shadow Control			Overdrive		Off		Dial Point		Off		
	Off										

	Game Mode	Off	No optimization by Smart image game.		
		FPS	For playing FPS (First Person Shooters) games. Improves bl level in dark theme.		
		RTS	For playing RTS (Real Time Strategy). Improves the image quality.		
		Racing	For playing Racing games, Provides fastest response time and high color saturation.		
		Gamer 1	User's preference settings saved as Gamer 1.		
		Gamer 2	User's preference settings saved as Gamer 2.		
		Gamer 3	User's preference settings saved as Gamer 3.		
	Shadow Control		Shadow Control Default is 50, then end-user can adjust from 50 to 100 or 0 to increase/decrease contrast for clear picture.		
		0-100	<ol> <li>If picture is too dark to be saw the detail clearly, adjusting from 50 to100 for clear picture.</li> </ol>		
0000			<ol> <li>If picture is too white to be saw the detail clearly, adjusting from 50 to0 for clear picture.</li> </ol>		
	Adaptive-Sync	On or Off	Disable or Enable Adaptive-Sync.		
			Adaptive-Sync Run Reminder: When the Adaptive-Sync feature is enabled, there may be flashing in some game environments.		
	Game Color	0-20	Game Color will provide 0-20 level for adjusting saturation to get better picture.		
	Overdrive	Off			
		Weak			
		Medium	Adjust the response time.		
		Strong			
	Frame Counter	Off / Right-up / Right-Down / Left-Down / Left-Up	Display V frequency on the corner selected.		
	Dial Point	On / Off	The "Dial Point" function places an aiming indicator in the center of screen for helping gamers to play First Person Shooter (FPS) games with an accurate and precise aiming.		



#### Extra

< 🔆 >	•	<b>T</b> Exit	 The setup	Color Setup		Picture Boost	OSD Setup	Game Setting
Input Select		Auto	Image Ratio	Wide	•	Resoluti	ion : 1920(H)X108	0(V)
Auto Config.			DDC/CI				uency : 67KHz	
Off Timer								

	Input Select	Auto / HDMI / D-SUB	Select Input Signal Source.	
	Auto Config.	Yes or No	Auto adjust the picture to default. (For D-SUB models).	
21	Off Timer	0-24hrs	Select DC off time.	
	Image Ratio	Wide / 4:3	Select image ratio for display.	
	DDC/CI	Yes or No	Turn ON/OFF DDC/CI Support.	
		Yes or No	Reset the menu to default.	
	Reset	ENERGY STAR <sup>®</sup> or No	(ENERGY STAR <sup>®</sup> available for selective models)	
		(DHI-LM22-F200)	(DHI-LM22-F200)	

### Exit



Exit	Exit the main OSD.
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# 7. Product Specifications

### **Product specifications**

Product model	DHI-LM22-F200	DHI-LM24-F200
Screen size	21.5″	23.8″
Aspect ratio	16:9	16:9
Viewing angle	178°(H)/178°(V)	178°(H)/178°(V)
Contrast ratio	3000:1(TYP)	4000:1(TYP)
Colors	16.7M	16.7M
Resolution	1920x1080	1920x1080



# **Appendix 1 FAQ**

Problem & Question	Possible Solutions				
Power LED Is Not ON	Make sure the power button is ON and the Power Cord is properly				
POWER LED IS NOT ON	connected to a grounded power outlet and to the monitor.				
	Is the power cord connected properly?				
	Check the power cord connection and power supply.				
	Is the video cable connected correctly?				
	(Connected using the HDMI cable)				
	Check the HDMI cable connection.				
	• If the power is on, reboot the computer to see the initial screen				
	(the login screen.)				
	• If the initial screen (the login screen) appears, boot the computer				
	in the applicable mode (the safe mode for Windows 7/8/10) and				
No image on the screen	then change the frequency of the video card.				
	(Refer to the Setting the Optimal Resolution)				
	If the initial screen (the login screen) does not appear, contact the				
	Service Center or your dealer.				
	Can you see "Input Not Supported" on the screen?				
	• You can see this message when the signal from the video card				
	exceeds the maximum resolution and frequency that the monitor				
	can handle properly.				
	Adjust the maximum resolution and frequency that the monitor				
	can handle properly.				
	Adjust the Contrast and Brightness Controls.				
Picture Is Fuzzy & Has	Press hot-key (AUTO) to auto-adjust.				
Ghosting Shadowing	Make sure you are not using an extension cable or switch box. We				
Problem	recommend plugging the monitor directly to the video card output				
	connector on the back.				
	Move electrical devices that may cause electrical interference as far				
Picture Bounces, Flickers Or	away from the monitor as possible.				
Wave Pattern Appears In The					
Picture	Use the maximum refresh rate your monitor is capable of at the				
	resolution you are using.				
	The Computer Power Switch should be in the ON position.				
	The Computer Video Card should be snugly fitted in its slot.				
	Make sure the monitor's video cable is properly connected to the				
Monitor Is Stuck In Active Off-	computer.				
Mode″	Inspect the monitor's video cable and make sure no pin is bent.				
	Make sure your computer is operational by hitting the CAPS LOCK key				
	on the keyboard while observing the CAPS LOCK LED. The LED should				
	either turn ON or OFF after hitting the CAPS LOCK key.				



	Inspect the monitor's video cable and make sure that no pin is		
Missing one of the primary	damaged.		
colors (RED, GREEN, or BLUE)	Make sure the monitor's video cable is properly connected to the		
	computer.		
Screen image is not centered			
or sized properly	Adjust H-Position and V-Position or press hot-key (AUTO).		
Picture has color defects			
(white does not look white)	Adjust RGB color or select desired color temperature.		
	Use Windows 7/8/10/2000 shut-down mode to adjust CLOCK and		
Horizontal or vertical	FOCUS.		
disturbances on the screen	Press hot-key (AUTO) to auto-adjust.		



# Appendix 2 Security Commitment and Recommendation

Dahua Vision Technology Co., Ltd. (hereinafter referred to as "Dahua") attaches great importance to cybersecurity and privacy protection, and continues to invest special funds to comprehensively improve the security awareness and capabilities of Dahua employees and provide adequate security for products. Dahua has established a professional security team to provide full life cycle security empowerment and control for product design, development, testing, production, delivery and maintenance. While adhering to the principle of minimizing data collection, minimizing services, prohibiting backdoor implantation, and removing unnecessary and insecure services (such as Telnet), Dahua products continue to introduce innovative security technologies, and strive to improve the product security assurance capabilities, providing global users with security alarm and 24/7 security incident response services to better protect users' security rights and interests. At the same time, Dahua encourages users, partners, suppliers, government agencies, industry organizations and independent researchers to report any potential risks or vulnerabilities discovered on Dahua devices to Dahua PSIRT, for specific reporting methods, please refer to the cyber security section of Dahua's official website.

Product security requires not only the continuous attention and efforts of manufacturers in R&D, production, and delivery, but also the active participation of users that can help improve the environment and methods of product usage, so as to better ensure the security of products after they are put into use. For this reason, we recommend that users safely use the device, including but not limited to:

### 1. Account Management

## 1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

## 1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

## 1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

## 1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

## 1.5 Set and update password reset information in a timely manner



Dahua device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

#### 2. Service Configuration

#### 2.1 Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

#### 2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

#### 2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

#### 2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

#### 3. Network Configuration

#### 3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

#### 3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

#### 3.3 Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

Disable the port mapping function of the router to avoid direct access to the intranet devices from external network;

According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation;

Stablish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

#### 4. Security auditing



#### 4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

#### 4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

#### 4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

#### 5. Software Security

#### 5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

#### 5.2 Update client software in time

We recommend you to download and use the latest client software.

#### 6. Physical protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).

## ENABLING A SMARTER SOCIETY AND BETTER LIVING