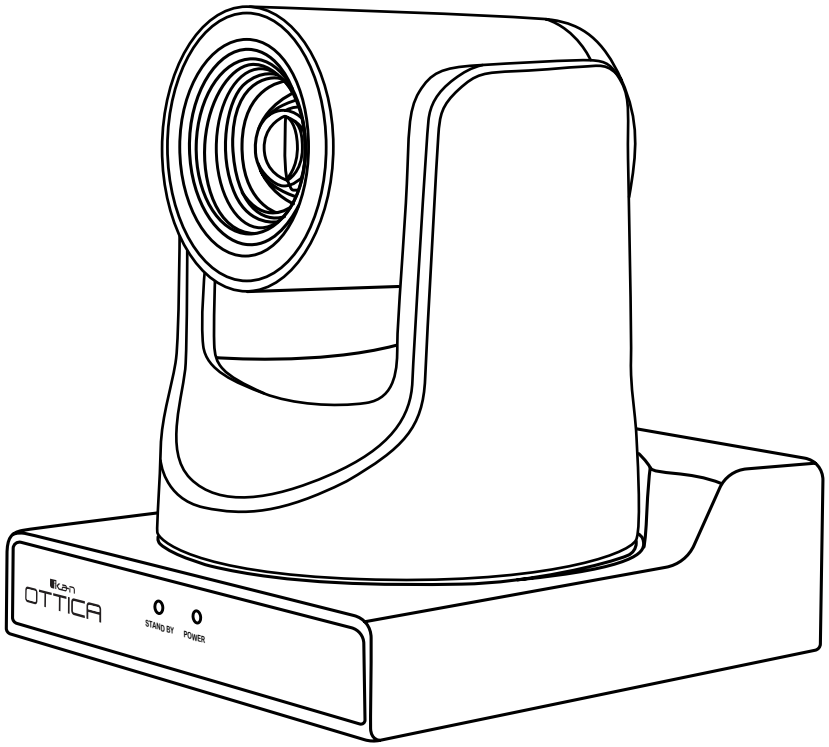
Manual

OTTICA-FHD-20x

OTTICA 20x Zoom NDI 1080/60P PTZ Video Camera



www.ikancorp.com sales@ikancorp.com

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Notice

Product specifications and information which were referred to in this document are for reference only. We may change, delete, or update any content at any time and without prior notice.

FCC NOTICE (Class A)

This product complies with Part 15 of the FCC Rules. The operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For the Latest Version of this Manual, Scan this QR Code:

Note

This product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

WARNING!

Operating this equipment in a residential environment may cause radio interference.

European Community Compliance Statement (Class A)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2014/30/EU.

Table of Contents

1. Safety Precautions

- During the installation and use of the equipment, all electrical safety regulations of the country and region of use must be strictly observed.
- If powering the camera using the 12v connector, please use the included power adapter.
- Please do not connect multiple devices to the same power adapter (exceeding the capacity of the adapter may generate excessive heat or cause a fire).
- Do not rotate PTZ head by hand, otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, secure the device securely. When installing, make sure that there are no obstacles within the rotation range of the gimbal; do not turn on the power until all installations are completed.
- To avoid heat build-up, keep area ventilated.
- If the device emits smoke, smells, or makes noises, please turn off the power immediately and unplug the power cord, and contact the dealer in time.
- This device is not waterproof, please keep the device dry.
- This product has no user serviceable parts, damage caused by disassembly by the user is not covered by the warranty.

Notice

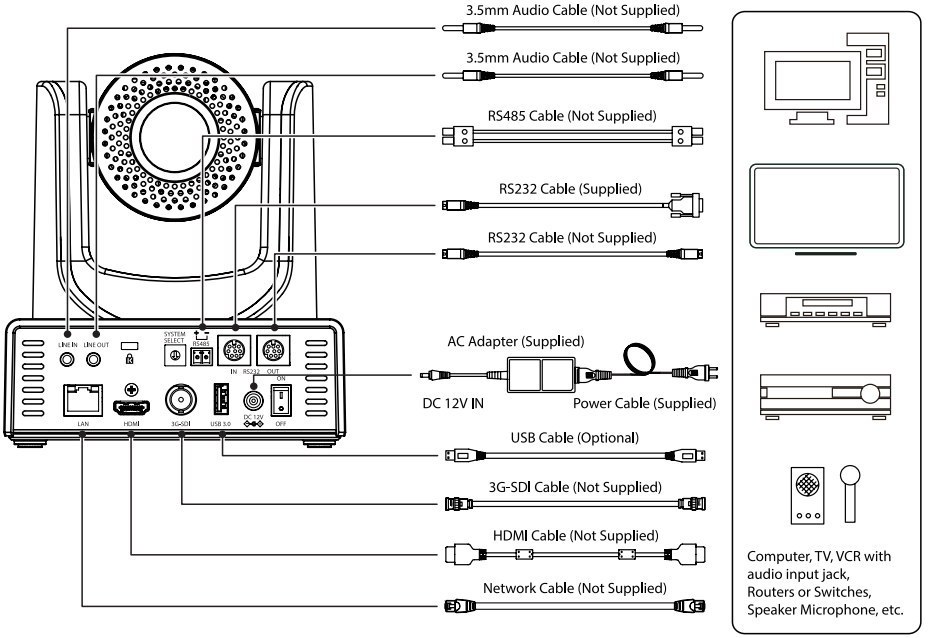
Specific frequencies of electromagnetic field may affect the image of the camera!

2. Packing List

- 1 x Camera
- 1 x Power Adapter
- 1 x Power Cable
- 1 x RS232 Cable
- 1 x Remote Control
- 1 x User Manual
- 1 x Wall Mount

3. Quick Start

1. Please ensure the connections are correct before starting.



2. Connect the power adapter to the 12V connector on the camera's rear panel. The power indicator on the front panel will light up.
3. After powering on, the camera initializes by moving to its limit position, then centers both horizontally and vertically. The motor stops running once initialization is complete. Note: If preset 0 is saved, the PTZ will move to preset 0 during initialization.

4. Video Format

0	1080P60
1	1080P50
2	1080I60
3	1080I50
4	720P60
5	720P50

6	1080P30
7	1080P25
8	-
9	-
A	1080P59.94
B	1080I59.94

C	1080P29.97
D	-
E	-
F	720P59.94

5. About Product

5.1 Features

- **60.7° Wide-Angle Lens + 20x Optical Zoom**
  60.7° High-quality ultra-wide-angle lens, optical zoom up to 20x, supports 16x digital zoom.
- **1080P Full HD**
  Equipped with a 1/2.8-inch high-quality HD CMOS sensor with 2.07 million effective pixels, it delivers high-quality images with a maximum resolution of 1920x1080p.
- **New ISP Image Processing Algorithm**
  The latest generation ISP image processing algorithm offers enhanced white balance and automatic exposure capabilities, significantly improving the camera's image output performance and overall imaging quality. It is widely applicable in fields such as educational recording and broadcasting, distance learning, video conferencing, live streaming, and broadcasting.
- **Upgraded AI Technology**
  Utilizing advanced AI technology with face recognition, it accurately identifies people's locations, enabling automatic tracking and frame selection.
- **1080/60P NDI®|HB, NDI®|HX3 Support**
  The OTTICA-FHD-20X supports selectable NDIIHB and NDIIHX3, both included with the camera. For more information, please contact Ikan at support@ikancorp.com.
- **`Leading Auto Focus Technology**
  The lens utilizes an advanced focusing algorithm for fast and precise focusing.
- **Audio Processing Algorithm**
  The proprietary audio processing algorithm eliminates reverberation, effectively reduces environmental noise, and supports EQ adjustments to enhance sound quality. The device
- supports dual mic pickup and can also be connected to external microphones to meet the
- pickup needs of most scenarios.
- **Multiple Interfaces**
  The OTTICA-FHD-20X supports HDMI and 3G-SDI, with a 3G-SDI transmission distance of up to 150 meters at 1080P30 resolution. It can simultaneously output three HD digital signals via HDMI, 3G-SDI, and LAN.
- **Remote Control**
  Through the RS232 and RS485 serial ports, the camera can be controlled remotely.

5.2 Specifications

Camera	
Signal System	1080P60, 1080P59.94, 1080P50, 1080I60, 1080I59.94, 1080I50, 1080P30, 1080P29.97, 1080P25, 720P60, 720P59.94, 720P50
Sensor	1/2.8 inch, CMOS, Effective pixels: 2.07M
Scanning Mode	Progressive
Lens	20x, f = 4.42mm ~ 88.5mm, F1.8 ~ F2.8
Digital Zoom	16x
Minimum Illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, VAR, Manual, One Push, Indoor, Outdoor
Backlight Compensation	Support
Digital Noise Reduction	2D & 3D Digital Noise Reduction
SNR	≥55dB
Horizontal FOV	60.7° ~ 3.36°
Vertical FOV	34.1° ~ 1.89°
Pan Angle	±170°
Tilt Angle	-30° ~ +90°
Pan Speed	1.7° ~ 100°/s
Tilt Speed	1.7° ~ 69.9°/s
Image Flip & Image Freeze	Support
35mm Equivalent Focal Length	30mm – 590mm
Preset Position	255
Preset Accuracy	0.1°

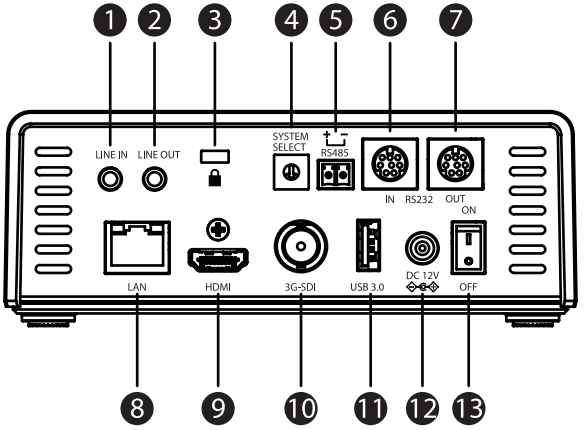
Audio Features	
Microphone Array	Built-in dual microphones, 100Hz to 16KHz frequency response
Audio Input	Support LINE IN audio input
Audio Output	Support LINE OUT, HDMI, USB and other audio output

USB Features	
Operate System	Windows 7/8/10, Mac OS X, Linux, Android
Color System / Compression	YUY2/MJPEG/H.264
USB Audio	Support
USB Video Protocol	UVC 1.1/UVC 1.5
UVC PTZ Control	Support

Interfaces	
LINE IN Interface	1 x LINE IN: 3.5mm Audio
Interface	1/2.8 inch, CMOS, Effective pixels: 2.07M
LINE OUT Interface	1 x LINE OUT: 3.5mm Audio Interface
Communication Interface	1 x RS485: 2pin phoenix port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
	1 x RS232 IN: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA/Pelco-D/ Pelco-P
	1 x RS232 OUT: 8pin Min DIN, Max Distance: 30m, Protocol: VISCA network use only
Network Interface	1 x LAN: 10M/100M Adaptive Ethernet Port
HDMI Interface	1 x HDMI: Version 1.3
3G-SDI Interface	1 x 3G-SDI: BNC type,
USB Interface	1 x USB 3.0: Type A
Power Jack	JEITA type (DC IN 12V)

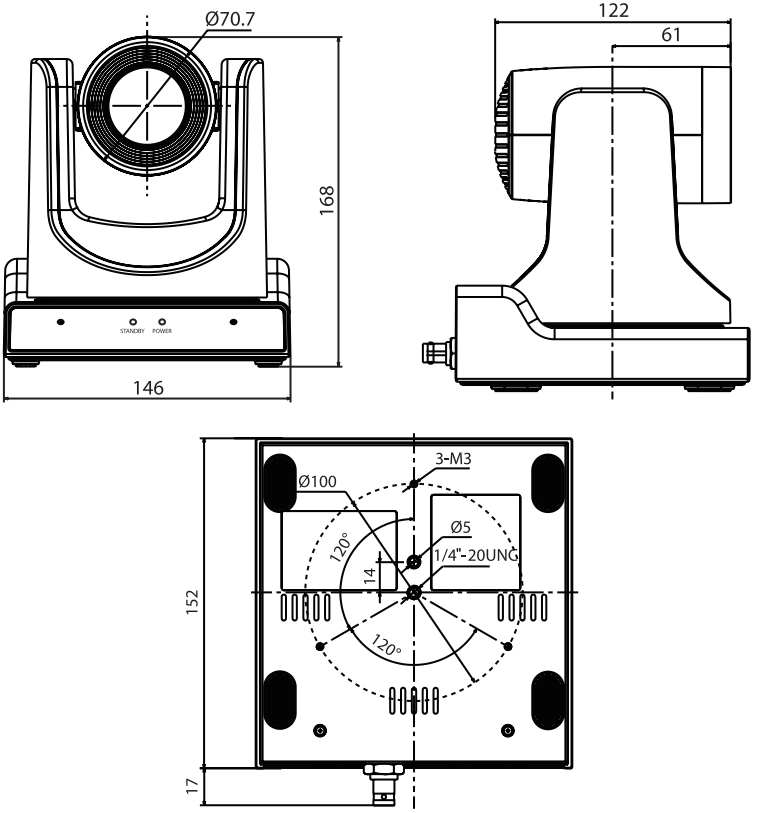
General Specifications	
Input Voltage	DC 12V
Input Current	Max. 1.2A
Operating Temperature	0°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	Max. 15W
Dimension	146mm x 169mm x 168mm
Net Weight	1.5Kg

5.3 Interface and Switch

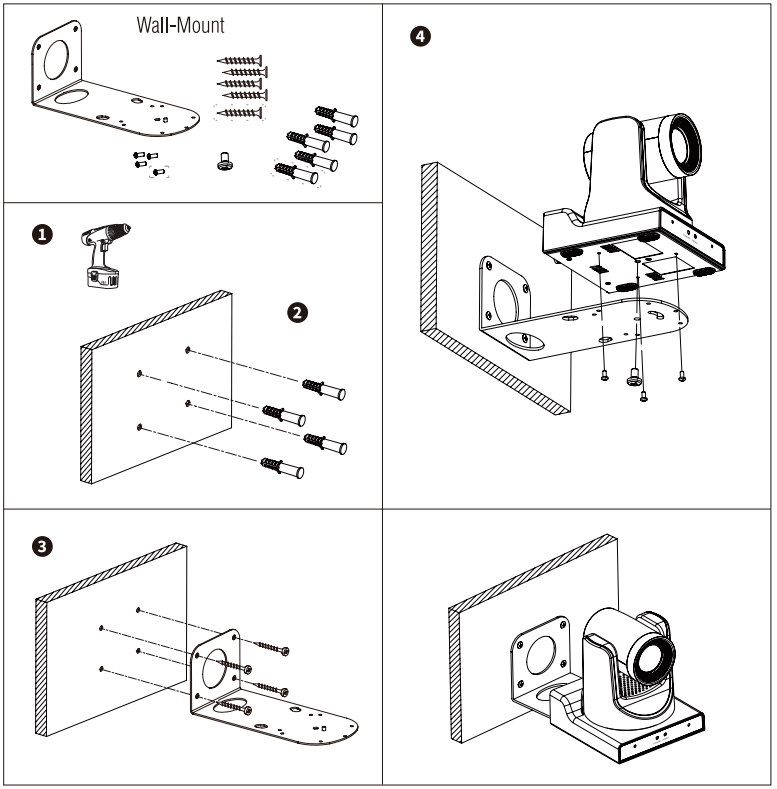


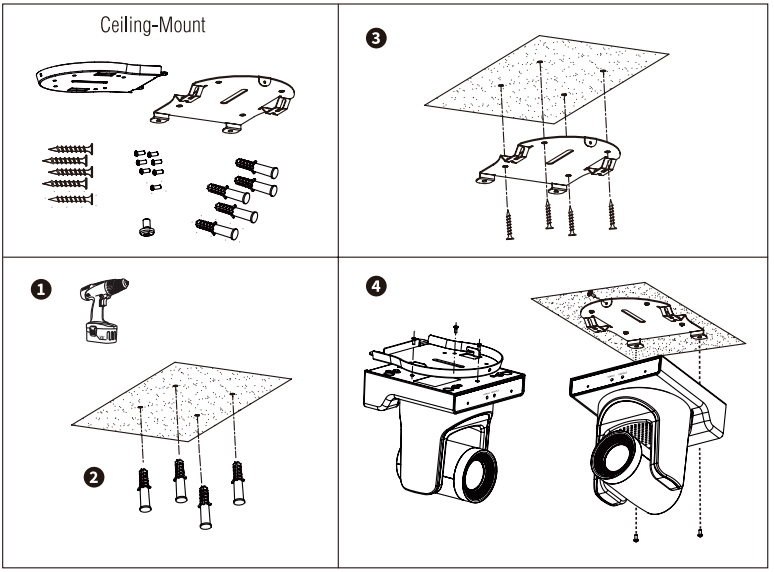
1. LINE IN Interface
2. LINE OUT Interface
3. Security Slot
4. System Select Switch
5. RS485 Interface
6. RS232 IN Interface
7. RS232 OUT Interface
8. LAN Interface
9. HDMI Interface
10. 3G-SDI Interface
11. USB 3.0 Interface
12. DC 12V Interface
13. Power Switch

5.4 Dimensions (mm)



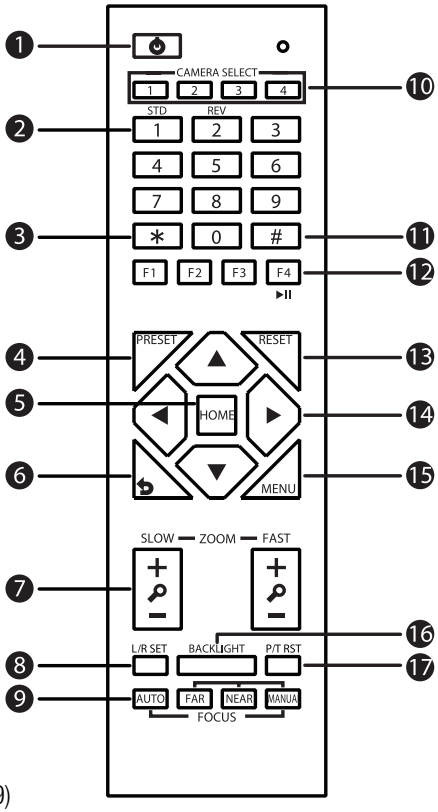
5.5 Installation





5.6 Remote Control

1. Standby Key: Press to enter standby mode
2. Number Key: Press to set preset or call preset
3. * Key: Use with other keys
4. PRESET Key:
   Set preset: [PRESET] + Number key (0-9)
5. HOME Key: Confirm selection or press to turn PTZ back to the middle position
6. Return Key: Press to return to the previous menu
7. ZOOM Key
   SLOW: Zoom In [+] or Zoom Out [-] slowly
   FAST: Zoom In [+] or Zoom Out [-] fast
8. L/R SET Key
   Standard: Simultaneously press L/R SET +1
   Reverse: Simultaneously press L/R SET +2
9. FOCUS Key: Auto/Manual/Far/Near focus
10. CAMERA SELECT Key: Press to select and control the camera
11. # Key: Use with other keys
12. IR Remote Control Key
    [*]+[#]+[F1]: Address 1
    [*]+[#]+[F2]: Address 2
    [*]+[#]+[F3]: Address 3
    [*]+[#]+[F4]: Address 4



13. RESET Key:
    Clear preset position: [RESET] + Number key (0-9)
14. PTZ Control Key: PTZ moved according to the arrow indicates
15. MENU Key: Press to enter or exit OSD Menu
16. BACKLIGHT Key
    Backlight ON/OFF: Press repeatedly to enable or disable the backlight compensation.
    NOTE:
- Effective only in auto exposure mode.
- If there is a light behind the subject, the subject will become dark, press the backlight key to enable the backlight compensation. Press again to disable this function.

17. P/T RST (PTZ Reset) Key: PTZ starts to self-test after pressed it

Shortcut Set

[*]+[#]+[1]: OSD menu default English
[*]+[#]+[3]: OSD menu default Chinese
[*]+[#]+[4]: Display current IP address
[*]+[#]+[6]: Quickly recover the default
[*]+[#]+[8]: View the camera version
[*]+[#]+[9]: Quickly set up inversion
[*]+[#]+[MANUAL]: Restore default IP address

6. GUI Settings

6.1 Menu

Press the [MENU] key to display the main menu on the normal screen. Use the arrow keys to move the cursor to the desired item. Press the [HOME] key to open the corresponding sub-menu.

Menu	
ENG/Chinese	ENG
AI MODE	Off
Video Format	1080P60
Style	Default
Exposure	->
Color	->
Image	->
Display	->
PTZ Setting	->
Setting	->
Version	->
Default	->
[MENU] Return / [HOME] Enter	

ENG/Chinese: ENG, Chinese.
AI MODE: Off, Single Track, Frame Track, Demo Mode
Video Format: 1080P60, 1080P50, 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50
Style: Default, Cold, Warm, Clear, Soft, User1, User2, User3

6.2 Exposure

Move the main menu cursor to [Exposure] and press the [HOME] key to access the exposure page, as shown in the figure below.

Exposure	
AE	Auto
Flicker	50Hz
Expcomp Mode	On
Expmode	2
Backlight	Off
Gain Limit	15
DRC Mode	Off
[MENU] Return / [HOME] Enter	

AE: Auto, Manual, Iris Priority, Shutter Priority, Bright Priority.
Flicker: Off, 50Hz, 60Hz (Effective only in Auto, Iris Priority, Bright Priority mode).
Expcomp Mode: On, Off (Effective only in Auto, Iris Priority mode).
Expmode: -7~7 (Effective only in Expcomp Mode to On).
Backlight: On, Off (Effective only in Auto, Iris Priority mode).
Bright: 0~99 (Effective only in Bright Priority mode).
Gain Limit: 0~32 (Effective only in Auto, Iris Priority, Bright Priority mode).
Iris: F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11, Off (Effective only in Manual, Iris Priority mode).
Shutter: 1/30, 1/50, 1/60, 1/90, 1/100, 1/125, 1/180, 1/250, 1/350, 1/500, 1/725, 1/1000, 1/1500, 1/2000, 1/3000, 1/4000, 1/6000, 1/10000 (Effective only in Manual, Shutter Priority mode).
Gain: 0~31 (Effective only in Manual, Shutter Priority mode).
DRC Mode: Manual, Auto, Off.
DRC: 0~14 (Effective only in DRC Mode to Manual).

6.3 Color

Move the main menu cursor to [Color] and press the [HOME] key to access the color page, as shown in the figure below.

Color	
AWB	Auto
Sens	Low
R-Tuning	0
B-Tuning	0
Hue	50
Saturation	100
[MENU] Return / [HOME] Enter	

AWB: Auto, VAR, Manual, One Push, Indoor, Outdoor.
Sens: Low, Middle, High.
R-Gain: 0~1023 (Effective only in Manual, One Push mode).
B-Gain: 0~1023 (Effective only in Manual, One Push mode).
R-Tuning: -128~128 (Effective only in Auto, Temp, One Push mode).
B-Tuning: -128~128 (Effective only in Auto, Temp, One Push mode).
Hue: 0~99.
Saturation: 0~200.
Temp: 2000 ~ 8500 (Effective only in Temp mode).

6.4 Image

Move the main menu cursor to [Image] and press the [HOME] key to access the image page, as shown in the figure below.

Image	
Brightness	50
Contrast	50
Sharpness Mode	Auto
Gamma Mode	Manual
Gamma	Ext
NR-2D Mode	Auto
NR-3D Mode	Auto
[MENU] Return / [HOME] Enter	

Brightness: 0~99.
Contrast: 0~99.
Sharpness Mode: Manual, Auto.
Sharpness: 0~25 (Effective only in Sharpness Mode to Manual).
Gamma Mode: Manual, Auto.
Gamma: Ext, 0.45, 0.5, 0.54, 0.56, 0.63 (Effective only in Gamma Mode to Manual).
NR-2D Mode: Manual, Auto.
NR-2D: 0~99 (Effective only in NR-2D Mode to Manual).
NR-3D Mode: Manual, Auto.
NR-3D: 0~15 (Effective only in NR-3D Mode to Manual).

6.5 Display

Navigate the main menu cursor to [Display] and press the [HOME] key to access the display page, as illustrated in the figure below.

Display	
OSD-Dir	0
Frac Rate	Off
HDMI Mode	HDMI
SDI Mode	Level A
Flip-H	Off
Flip-V	Off
Freeze	Off
[MENU] Return / [HOME] Enter	

OSD-Dir: 0, 90, 180, 270.
Frac Rate: On, Off.
HDMI Mode: HDMI, DVI.
SDI Mode: Level A, Level B.
Flip-H: On, Off.
Flip-V: On, Off.
Freeze: On, Off.

6.6 PTZ Settings

Move the main menu cursor to [P/T/Z Setting] and press the [HOME] key to access the P/T/Z setting page, as shown in the figure below.

PTZ Settings	
AF-Sense	High
AF-Zone	Front
Focus Limit	Off
LR Mode	STD
Motion Sync	Off
Horizontal Speed	23
Vertical Speed	19
Zoom Speed	7
PTbyZoom	On
[MENU] Return / [HOME] Enter	

AF-Sense: High, Normal, Low.
AF-Zone: Front, Top, Center, Bottom.
Focus Limit: On, Off.
Near Focus Limit: 1M, 1.5M, 2M, 3M, 4M, 5M, 6M, 8M, 10M, 15M, 20M (Effective only in Focus Limit to On).
Far Focus Limit: 15M, 20M, Infinity (Effective only in Focus Limit to On).
LR Mode: STD, REV.
Motion Sync: On, Off.
Horizontal Speed: 0~23.
Vertical Speed: 0~19.
Zoom Speed: 0~7.
PTbyZoom: On, Off.

6.7 Setting

Move the main menu cursor to [Setting], and press [HOME] key enter the setting page, as shown in the following figure.

PTZ Settings	
Visca Addr	1
Visca Mode	Series
Baud Rate	9600
DHCP	Off
IP Addr	192.168.1.88
MAC	d4e08e548d13
[MENU] Return / [HOME] Enter	

Visca Addr: 1~7 (Effective only in VISCA protocol).
Visca Mode: Serial, Paral.
Baud Rate: 2400, 4800, 9600, 19200, 38400, 57600, 115200.
DHCP: On, Off.
IP Addr: 192.168.1.88.
MAC: d4e08e548d13.

6.8 Version

Move the main menu cursor to [Version], and press [HOME] key enter the version page, as shown in the following figure.

PTZ Settings	
Main	X8.02.15
AF	14.04.04
Date	2022-08-18
Code	VF1
NDI License	Okay
[MENU] Return / [HOME] Enter	

Main: Displays the version number of the main program of the camera.
AF: Displays the camera auto-focus version number.
Date: Displays the burning date of the main program version of the camera.
Code: Displays the camera code.
NDI License: Display NDI license verification results (Only on NDI-Compatible Versions)

6.9 Default

Move the main menu cursor to [Default], press [HOME] key enter default page, as shown in the following figure.

PTZ Settings	
Reset	No
[MENU] Return / [HOME] Enter	

Reset: Yes, No.

7. WEB Settings

7.1 Access Camera

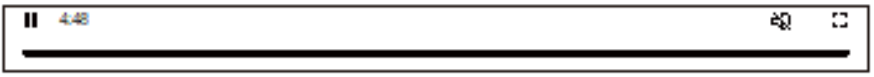
Access http://192.168.1.88 to pop up the login window, then input username (default: admin) and password (default: admin). After login, it will show as below:

7.2 Control Camera

All pages include two menu bars:
Real time monitoring: displaying video image
Parameter setup: with function buttons.

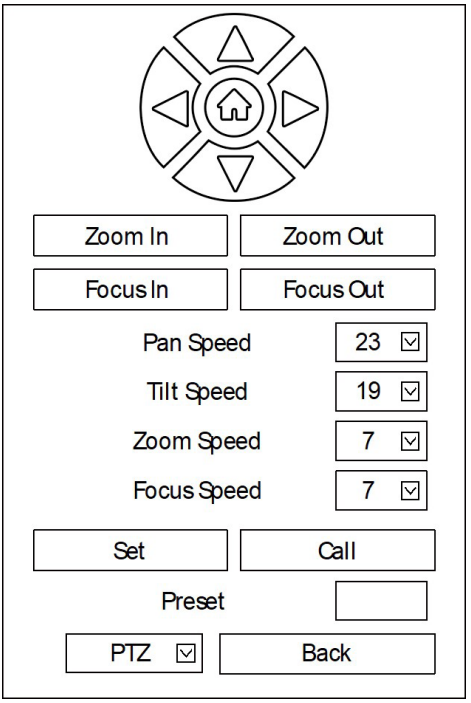
A. Video Viewing Window

The video viewing window must match the video resolution; higher resolutions result in a larger playback area. Double-clicking the viewing window will switch to full-screen mode, while double-clicking again will revert to the original size. The status bar in the viewing window is displayed as follows:



1) Video Playback Pause Button: Allows you to pause real-time video, freezing the last frame. Click again to resume video playback.
2) Audio Control Buttons: Adjust the volume or enable silent mode.
3) Full-Screen Switch Button: Toggle between full-screen and standard view.

B. PTZ Setup



1) Pan and Tilt Control

Up, Down, Left and Right arrows and the home button allow you to manually drive the camera to the desired position.

2) Zoom

Zoom In and Zoom Out buttons allow for wide or narrow view of the space.

3) Focus

Focus In and Focus Out buttons allow for fine manual focus adjustment.

4) PTZ Speeds

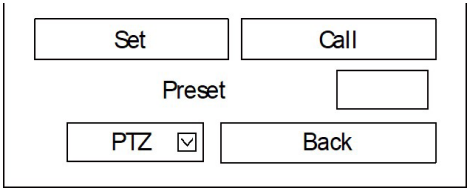
Pan speed can be set at any rate between 1 ~ 24, Tilt speed can be set at any rate between 1 ~ 20. Zoom and Focus speeds can be set at any rate between 1 ~ 7.

5) PTZ Presets

After manually setting up a desired shot for future use, you can save presets to quickly recall those positions. Enter a number between 0 and 254 in the Preset box, then click the “Set” button to save the current position under that preset number. To return the camera to a saved position, click the “Call” button. This provides smooth, fast, and convenient control without needing to manually adjust the camera each time.

You can customize presets based on the user's preferences using the following method:

Method: Enter the preset number in the Preset box.



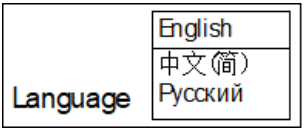
Preset: Optional items: 0 ~ 254.

6) PTZ/OSD Dropdown

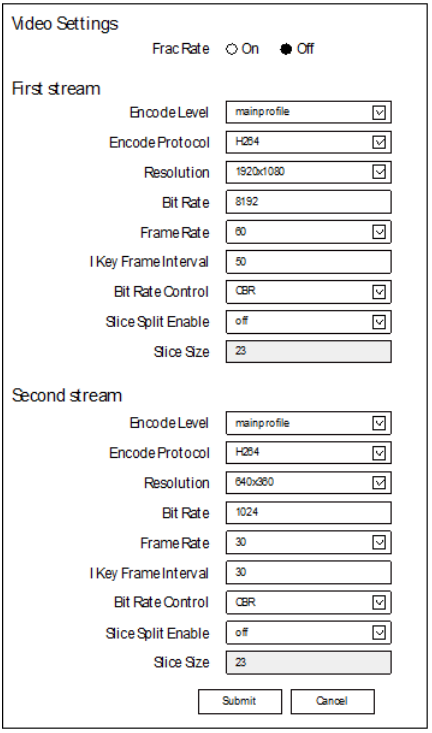
Selecting the OSD option from the dropdown menu opens the camera's on-screen display menu, allowing control directly through the IP interface.

C. Language Selection

Click either “English”, “Chinese”, or “Russian” to change the language of the webpage.



7.3 Video Settings



1) Frac Rate

The Frac Rate will allow you to switch on/off fractional frame rates. For example, 60fps to 59.94fps or 30fps 29.97fps.

2) Encode Level

Supports baseline, mainprofile, highprofile and svc-t four levels.

3) Encode Protocol

Supports H.264 and H.265 protocols.

4) Resolution

First stream supports 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360. Second stream supports 1280x720, 1024x576, 720x480, 640x360, 480x272, 320x240, 320x180; The higher the resolution, the clearer the image will be, but it will also require more network bandwidth.

5) Bit Rate

The user can specify the bit rate, but should also consider the network bandwidth. In general, a higher bit rate produces a clearer image. However, if the available bandwidth is limited, a higher bit rate can lead to transmission issues and decreased video quality.

6) Frame Rate

The user can adjust the frame rate to the desired number of frames per second.

7) I Key Frame Interval

Increasing the interval between two consecutive I-frames will result in a reduced responsiveness from the viewing window.

8) Bit Rate Control

Code stream control way:
CBR (Constant Bit Rate): Maintains a steady bit rate throughout, suitable for stable network transmission but may not optimize quality in varying scenes.
VBR (Variable Bit Rate): Adjusts bit rate based on scene complexity, enhancing overall quality by allocating more bits to complex scenes and fewer to simpler ones.

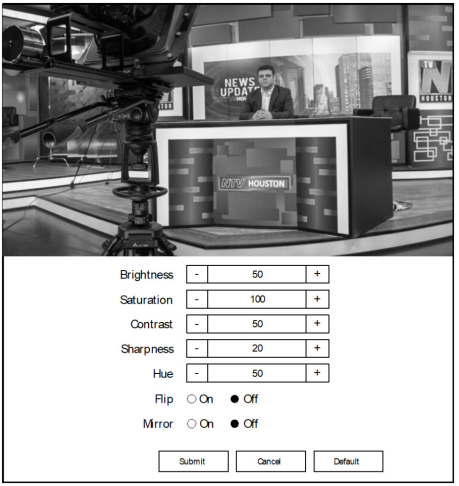
9) Slice Split Enable

Enable or disable slice split function.

10) Slice Size

Set the size of slice.

7.4 Image Settings



1) Brightness

Brightness of image: 0~99
(Default value is 50).

2) Saturation

Saturation of image: 0~200
(Default value is 100).

3) Contrast

Contrast of image: 0~99
(Default value is 50).

4) Sharpness

Sharpness of image: 0~99 (Default value is 20).

5) Hue

Hue of image: 0~99 (Default value is 50).

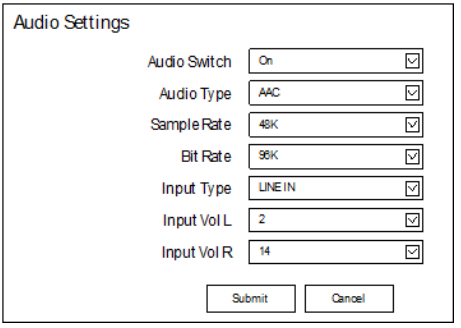
6) Flip

Turns On/Off the Flip function.

7) Mirror

Turns On/Off the Mirror function.

7.5 Audio Settings



1) Audio Switch

Turns On/Off audio switch.

2) Audio Type

Optional items: AAC.

3) Sample Rate

Optional items: 32K, 48K.

4) Bit Rate

Optional items: 96K, 128K, 256K.

5) Input Type

Optional items: LINE IN, MIC.

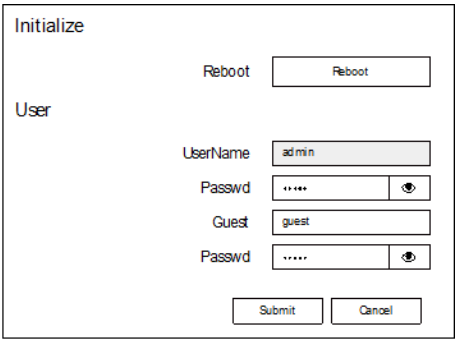
6) Input Vol L

The volume of the left channel.

7) Input Vol R

The volume of the right channel.

7.6 System Settings



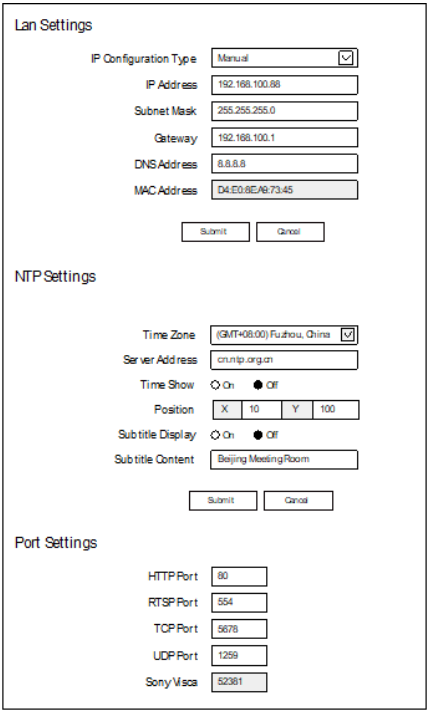
1) Reboot

Click the “Reboot” button. System will restart.

2) Username and Password

The user can modify the password, using only letters and numbers.

7.7 Network Settings



1) Lan Settings

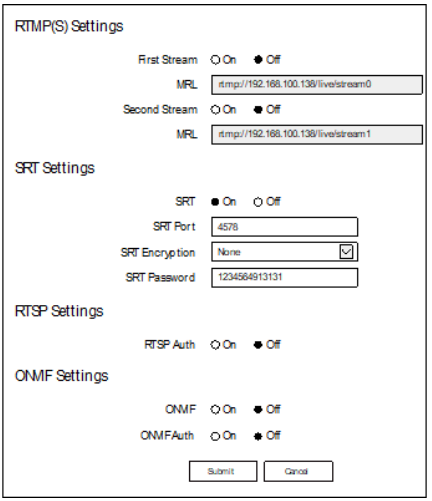
The Default IP address is 192.168.1.88, the MAC address cannot be modified.

2) NTP Settings

Configure the NTP time zone and server address. Enable or disable the time display and adjust its on-screen position. Enable or disable subtitles, and set the subtitle content for the camera screen.

3) Port Settings

A. HTTP Port:
An IP address identifies a network device, which can run multiple web applications. Each application uses a specific network port to transmit data, so data transfer occurs from port to port. The port setting determines which port the web server program will use. When configuring port mapping, the port number must remain consistent (the default is port 80).
B. RTSP Port:
The camera support RTSP protocol, use the VLC tools broadcast, default port: 554.
C. TCP Port:
Support TCP connection then control camera, default port: 5678.
D. UDP Port:
Support UDP protocol, default port: 1259.
E. Sony Visca:
Support Sony Visca, default value: 52381.



4) RTMP(S) Settings

Turn On/Off first stream or second stream, setting the MRL of RTMP.

5) SRT Settings

Turns On/Off SRT, Setting the SRT Port, SRT Encryption and SRT Password.

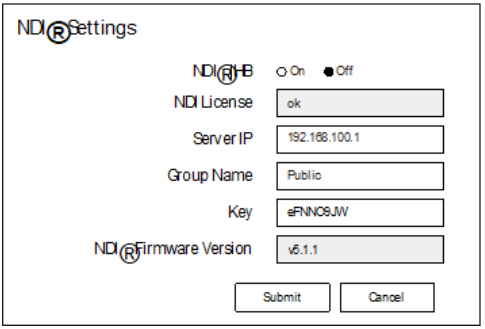
6) RTSP Settings

Turns On/Off RTSP Auth.

7) ONVIF Settings

Turns On/Off ONVIF and ONVIF Auth.

7.8 NDI|HB Settings(High Bandwidth)



1) NDI®

Turns On/Off NDI®.

2) NDI® License

Displays NDI® License verification results.

3) Server IP

Setting for NDI® Server IP Address.

4) Group Name

Setting for NDI® Group Name.

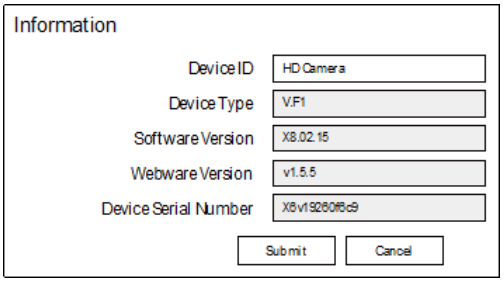
5) Key

Displays NDI® Key.

6) NDI® Firmware Version

Displays NDI® Firmware Version.

7.9 Device Information



7.10 Upgrade Program Download

If you need the camera upgrade program, please reach out to Ikan at 713-272-8822.

8 AI-Tracking

8.1 Web Control

- Speaker (Presenter)/Human Tracking

By adjusting the web interface parameters, various close-up ratios can be achieved, and tracking can be enabled or disabled to display specific areas and character positions. Additionally, if needed, you can choose whether to show tracking-related prompt information.

Step 1) Enter the camera's IP address (192.168.1.88) in the browser to open the login window. After entering the username (admin) and password (admin), you can access the camera's web interface.

Step 2) Navigate to the "Tracking" option, select the speaker mode as "Presenter," and configure the tracking parameters while in the "Track Off" state.

Tracking Mode: Speaker (Presenter) / Area (Zone)
The default setting is Presenter Mode.

Step 3) Determine the Target Retention Time, which defaults to 6 seconds and can be set up to a maximum of 10 seconds.

Auto Zoom: Typically remains at the default setting. When "Auto Zoom" is disabled, the camera lens can still move but will maintain the current magnification without zooming.

Auto Tilt: Typically remains at the default setting. When "Auto Tilt" is disabled, the camera lens can only move horizontally.

Target Retention Time: Usually remains at the default setting. This function determines how long the camera lens takes to return to the Home or starting position after losing the tracking target. Any modifications made take effect immediately.

Step 4) Select the desired close-up effect.

Figure Size:
By choosing different modes, users can customize the proportion of the subject in the close-up frame, which is a key feature. Any changes take effect immediately.

Full: The close-up image captures the target's entire body, as illustrated in the following figure.

Upper: The close-up image tracks the target from above the knee, as illustrated in the following figure.

Tracking Start Position
Users can select the camera lens position when starting and stopping tracking.
Two Modes: Current Location / Preset 1

Current Location:
When tracking is enabled, the camera remains in its current position.
When tracking is disabled, the camera stops at its current position.

Preset 1:
Requires setting a predefined camera position.
When tracking is enabled, the camera moves to Preset 1 first.
If a subject enters the frame, the camera will automatically track them. When the tracking target is lost (exceeding the timeout period), the camera automatically returns to Preset 1.

Character Position

The Character Position setting defaults to Median. Users can manually select Left or Right as needed, a feature primarily used for live streaming scenarios.

Step 5) Based on the application scenario, you can choose whether to enable "Humanoid Frame" and "Tracking Hint", both of which have default settings.

In live streaming scenarios, these options are typically left disabled to avoid disruptions from temporary adjustments during the stream.

Humanoid Frame: Default / Off / Debug

Default: When tracking is enabled, if multiple people appear in front of the camera, pressing the direction key allows selection of the tracking target.

A humanoid frame will automatically appear around the selected target.

Pressing the HOME key confirms tracking, after which the frame disappears, and the camera begins tracking.

Off: The humanoid frame is not displayed when selecting a tracking target.

This setting is ideal for live streaming scenarios to maintain a clean display.

Debug: The humanoid frame remains visible on the tracking target at all times.

This mode is only for debugging or demonstration purposes.

Tracking Hint: On / Off

On: A prompt appears in the upper left corner of the video when switching tracking.

Off: No prompt is displayed during tracking switches.

Recommended for live streaming scenarios to maintain an uninterrupted viewing experience.

Step 6) Enable tracking, use the arrow keys to select the tracking target, and press Home to confirm.

Area Tracking (Zone)

Function:

Divides frequently used tracking areas into multiple zones (A, B, C, D) as needed. Each zone is assigned a preset position, which is saved for automatic tracking. When the tracking target enters a specific zone, the camera automatically moves to the corresponding preset position to track the subject.

Operation Method:

Step 1: Enter the camera's IP address (192.168.100.88) in a web browser to open the login window. After entering the username (admin) and password (admin), log in to the camera's web interface.

Step 2: Navigate to the "Tracking" page and select "Zone." While in the Track Off state, configure the tracking parameters.

Step 3: Use the web interface's directional keys and Zoom In/Out controls to adjust the lens position.

Set multiple preset positions, such as Zone A, sequentially, and click “Save”.
Users can determine the number of preset positions based on their application needs, with a maximum limit of 4.
If settings are incorrect, presets can be deleted or reset as needed.

Tracking Start Area
Tracking Start Area allows selecting any Zone position as the starting or ending point for tracking.
When tracking is enabled, the camera will first move to the designated Zone position.
If a subject enters the frame, the camera will automatically begin tracking.
When the tracking target is lost, the camera will return to the selected Zone position automatically.

6.2 Remote Control

Speaker Tracking (Presenter)
The camera's default mode is Speaker Tracking (Presenter).
Users can verify the current settings through the web interface.

Function:
This method allows for quick tracking activation/deactivation and target selection using the remote control.

Single Person Scenario:
Press the F3 key on the remote control to start tracking.
Press the F4 key to exit tracking mode.
If only one person is in the scene:
Press F3 to start tracking.
The camera will lock onto the target and begin tracking immediately.
A confirmation screen will appear, indicating that tracking has successfully started.
Users can press F4 at any time to exit tracking mode.

Multi-Person Scenario:
Press the F3 key on the remote control to start tracking.
If multiple people are in front of the camera:
Use the left and right keys on the remote control to select the tracking target. Press the HOME key to confirm the selection.
The camera will then begin tracking the chosen target.
Press the F4 key to exit tracking mode at any time.

8 Troubleshooting

Image

- The monitor shows no image

1) Check that the camera power supply is connected, the voltage is normal, and the power indicator light is always on.
2) Turn off the power switch to check whether the camera is self-testing when booting back up.
3) Check the cable of video platform and TV whether correct connection.

- The video image displayed by the camera lens is jittery

1) Check whether the camera install location is stable.
2) Check whether have vibrating machinery or object near the camera.

- No video image is displayed in the browser.

IE does not support H5, so you need to use the VLC plug-in to view videos. Go to the VLC website (http://www.videolan.org/vlc) to download and install the 32-bit VLC media player. Once installed, you should be able to view the camera's video feed as normal. Other mainstream browsers already support H5 and do not require the VLC plug-in.

- Unable to access camera through Browser

1) Use a PC to access the network and verify that it is functioning correctly. This approach also rules out any network issues caused by a potential PC virus. Continue testing until the PC and camera can successfully communicate via ping.
2) DDisconnect the network and connect the camera and PC directly. Then, reset the PC's IP address, making sure the first three segments match. For a detailed tutorial on changing your PC's IP address, scan the QR code on the right side of the page.
3) Verify the camera's IP address, subnet mask, and gateway settings.
4) Connect the camera to a monitor via HDMI and press the menu button on the IR remote. Then, press [*]+[#]+[4] to display the camera's current IP address. Enter this address in your browser's URL bar.
5) Restore the camera's default IP address using the IR remote. Aim the remote at the camera and press [*]+[#]+[MANUAL].
6) Check whether the MAC address is having conflicts.
7) Check whether the web port is modified.
The default web port is 80.

- Forgot the IP address or login password

Please remember (The default IP address: 192.168.1.88; default user name: admin; default password: admin).

Control

- The remote control is not functioning.

1) Replace the remote controller's battery.
2) Verify that the camera is in the correct operating mode.
3) Make sure the remote controller's address matches the camera's address.

- The serial port is not functioning for control.

1) Verify that the camera protocol, address, and baud rate match.
2) Ensure that the control line is properly connected.

Learn More at www.ikancorp.com

Support

Contact email: support@ikancorp.com

CONDITIONS OF WARRANTY SERVICE

- Free service for 3 years from the day of purchase if the problem is caused by manufacturing errors.
- The components and maintenance service fee will be charged if the warranty period is expired.

Free service will not be provided in the Following Situations: (*Even if the product is still within the warranty period.)

- Damage caused by abuse or misuse, dismantling, or changes to the product not made by the company.
- Damage caused by natural disaster, abnormal voltage, and environmental factors, etc.