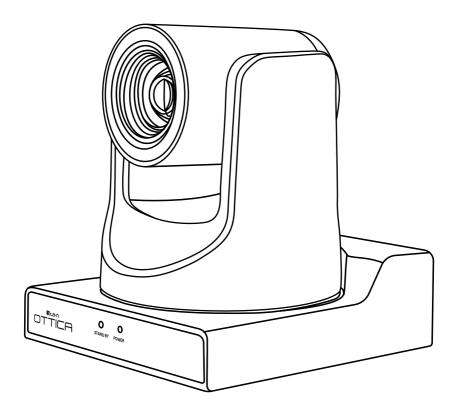


OTTICA-FHD-20x like

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





Copyright

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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.



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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

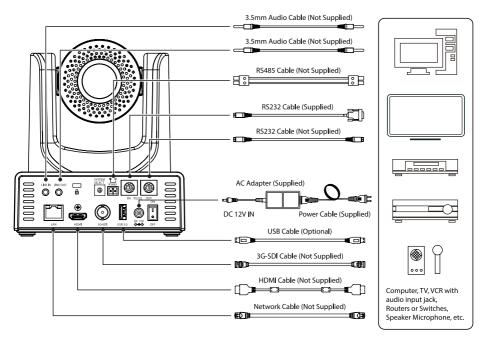
Specific frequencies of electromagnetic field may affect the image of the camera!

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

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	1080 60
3	1080 50
4	720P60
5	720P50

6	1080P30
7	1080P25
8	-
9	-
Α	1080P59.94
В	1080 59.94

С	1080P29.97
D	-
Е	-
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 Al Technology

Utilizing advanced AI technology with face recognition, it accurately identifies people's locations, enabling automatic tracking and frame selection.

• 1080/60P NDI®IHB, NDI®IHX3 Support

The OTTICA-FHD-20X supports selectable NDIIHB and NDIIHX3, both included with the camera. For more information, please contact lkan 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 features dual microphone pickup and can also connect to external microphones, accommodating the audio capture requirements of various 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°	

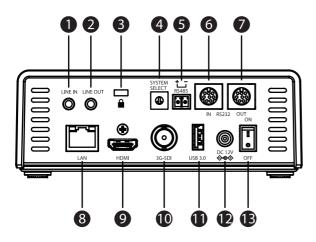
Audio Features		
Microphone Array	Built-in dual microphones, 100Hz to 16KHz frequency response	
Audio Input	Support LINE IN audio input	
Audio Output	Support LINE OUT, HDMI, USB and other audio output	

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	
	1 x RS485: 2pin phoenix port, Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P	
Communication Interface	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)	

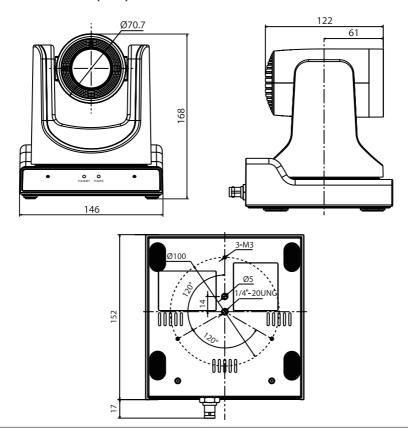
General Specifications		
Input Voltage	DC 12V	
Input Current	Max. 1.2A	
Operating Temperature	0°C ~ 40°C	
Storage Temperature	-40°C ~ 60°C	
Power Consumption	Max. 15W	
Dimension	146mm x 169mm x 168mm	
Net Weight	1.5Kg	

5.3 Interface and Switch

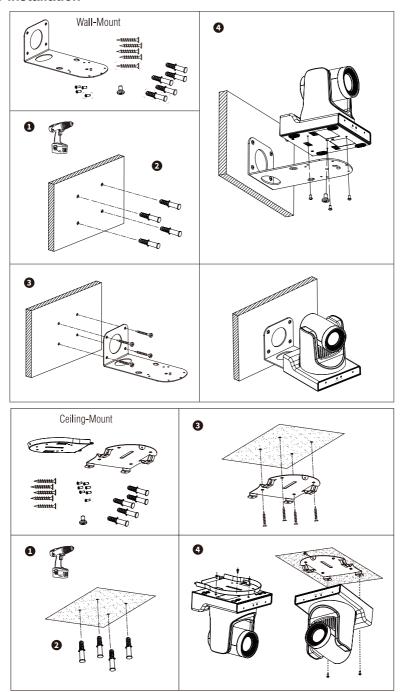


- 1. LINE IN Interface
- 2. LINE OUT Interface
- 3. Security Slot
- 4. System Select Switch
- 5. RS485 Interface
- 6. RS232 IN Interface
- 7. RS232 OUT Interface
- 8. LAN Interface
- 9. HDMI Interface
- 10. 3G-SDI Interface
- 11. USB 3.0 Interface
- 12. DC 12V Interface
- 13. Power Switch

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 3
- 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:

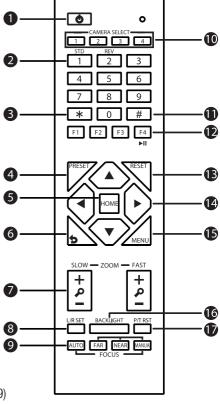
Clear preset position: [RESET] + Number key (0-9)

- 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.

Al 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: $2000 \sim 8500$ (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	Fxt	
NR-2D Mode	Auto	
NR-3D Mode	Auto	
	. 10.10	
[MENU] Return / [HOME] Enter		

Brightness: $0\sim99$. Contrast: $0\sim99$.

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: $0\sim99$ (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 autofocus 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

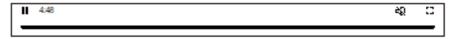
All pages include two menu bars:

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

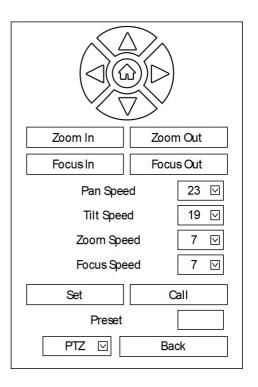
Zoom In and Zoom Out buttons allow for wide or narrow view of the space.

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 $1 \sim 24$, Tilt speed can be set at any rate between $1 \sim 20$. Zoom and Focus speeds can be set at any rate between $1 \sim 7$.

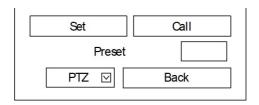


5) PTZ Presets

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.



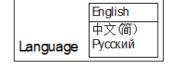
Preset: Optional items: 0 ~ 254.

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

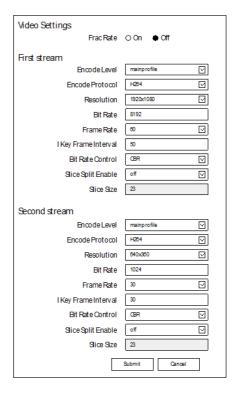
Supports baseline, mainprofile, highprofile and svc-t four levels.

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

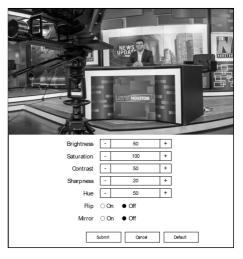
Hue of image: 0~99 (Default value is 50).

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.

Audio Settings Audio Switch On Audio Switch On Audio Type AAC Sample Rate 48K Bit Rate 99K Input Type UNE IN Input Vol L 2 Input Vol R 14 Submit Cancel

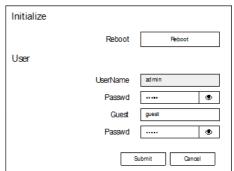
7.6 System Settings

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 192.168.100.88, 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

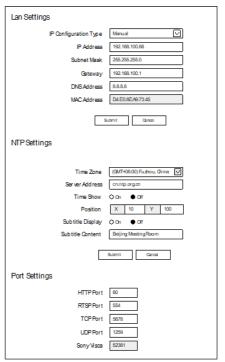
Turn On/Off first stream or second stream, setting the MRL of RTMP.

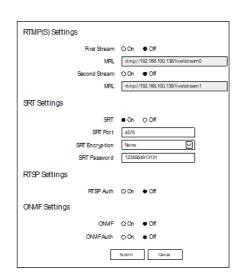
5) SRT Settings

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 NDIIHB Settings(High Bandwidth)

1) NDI®

Turns On/Off NDI®.

2) NDI® License

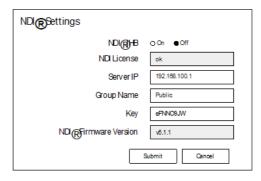
Displays NDI® License verification results.

3) Server IP

Setting for NDI® Server IP Address.

4) Group Name

Setting for NDI® Group Name.

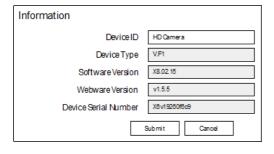


5) Key

6) NDI® Firmware Version

Displays NDI® Key. Displays NDI® Firmware Version.

7.9 Device Information



7.10 Upgrade Program Download

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

8 Troubleshooting

Image

- No image is displayed on the monitor.
- 1) Ensure the camera's power supply is connected, the voltage is normal, and the power indicator remains on.
- 2) Power the camera off and then on again to confirm it performs its self-test on startup.
- 3) Verify that the cables between the video platform and the TV are correctly connected.
- 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.

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