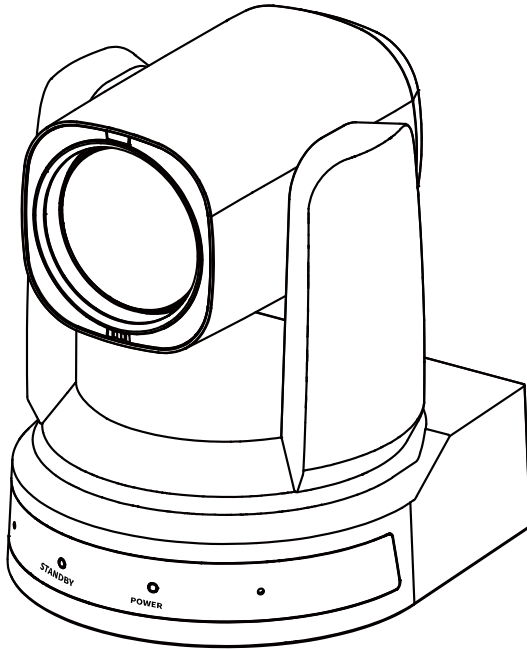


USB HD Video Conference Camera



User Manual English (V1.0)



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 device 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.



Note

This equipment 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.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:



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.

Catalogue

1	Note	1
2	Packing List	1
3	Quick Start.....	1
4	About Product.....	2
4.1	Features.....	2
4.2	Product Specification	2
4.3	Interfaces and Buttons	4
4.4	Dimension.....	4
4.5	Installation	5
4.6	Remote Control	6
5	GUI Settings.....	7
5.1	MENU	7
5.2	EXPOSURE	7
5.3	COLOR.....	7
5.4	IMAGE	8
5.5	P/T/Z	8
5.6	NOISE REDUCTION.....	8
5.7	SETUP	9
5.8	COMMUNICATION SETUP	9
5.9	RESTORE DEFAULT.....	9
6	WEB Settings	10
6.1	Access Camera.....	10
6.2	Control Camera	10
6.3	Video Settings.....	11
6.4	Image Settings.....	12
6.5	Audio Settings	12
6.6	System Settings.....	12
6.7	Network Settings.....	13
6.8	Device Information.....	14
6.9	Download the Upgrade Program	14
7	Maintenance and Troubleshooting	14

1 Note

- During the installation and operation, all electrical safety regulations of the country and region of use must be strictly observed.
- Please use the power adapter that comes standard with this product.
- Do not connect multiple devices to the same power adapter (exceeding capacity of the adapter may generate excessive heat or cause fire).
- Do not rotate the camera by hand, otherwise it may cause mechanical failure.
- When installing this product on a wall or ceiling, make sure the device securely and there are no obstacles within the rotation range; Do not power on until all installations are completed.
- To avoid heat build-up, please keep smooth ventilation around the device.

- If the device smokes, smells, or makes noises, please turn off the power and unplug the power cord immediately, then 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.



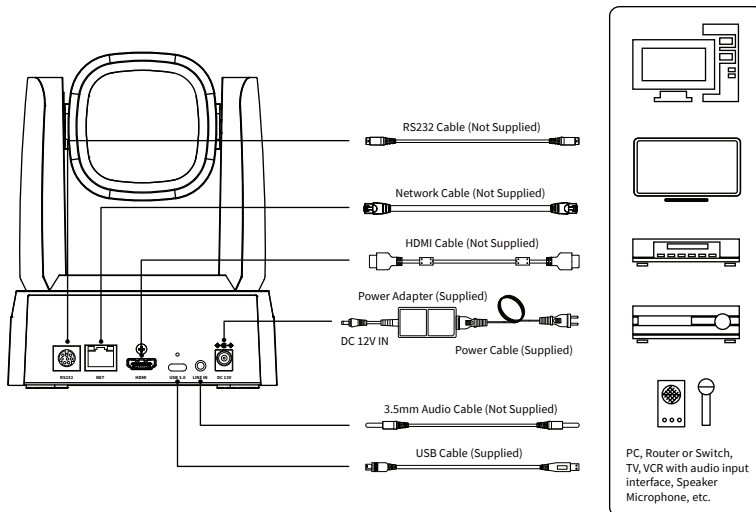
Specific frequencies of electromagnetic field may affect the image of the camera!

2 Packing List

Name	Quantity
Camera	1
Power Adapter	1
Power Cable	1
Remote Control	1
USB Cable	1
User Manual	1

3 Quick Start

- 1) Please check connections are correct before starting.



- 2) Connect the power adapter to the power connector on the rear panel of the camera. The power indicator on the front panel of the camera is on.
- 3) After the camera is powered on, it starts to initialize, right up to the limit position, and then both horizontal and vertical go to the middle position, the motor stops running, and the initialization is completed.

4 About Product

4.1 Features

- **Full Function USB Interface**

Full function USB interface, compatible with USB 3.0 and USB 2.0, support UVC v1.1 and UAC 1.0 protocol, support video raw image and encoding output.

- **1080P Full HD**

High-quality HD CMOS sensor with 2.07 million effective pixels for high-quality images up to 1920x1080.

- **72.5° Wide-angle-lens +16x Digital Zoom**

The exclusively customized 72.5° high-quality ultra-wide-angle lens, support 12x optical zoom and 16x digital zoom.

- **Low Illumination**

The new CMOS image sensor with ultra-high SNR can effectively reduce the image noise under low illumination. The application of 2D and 3D noise reduction algorithm greatly reduces the image noise even under the condition of ultra-low illumination, it keeps the picture clean and clear, and the SNR of image is as high as 55dB.

- **PoE**

The wired network supports PoE power supply, the control, power supply, video and audio can be completed with a network cable.

- **Remote Control**

The camera can be controlled remotely through the RS232, network and USB port.

- **H.264 Slice**

The H.264 stream supports Slice encoding modes, and suitable for high-end USB conference video applications.

- **Dual Stream**

Support two stream output (YUY2, MJPEG, H.264 each of both) to reduce the host codec pressure.

- **Multiple & Complete Interfaces**

Support 1080P video output through HDMI, USB 3.0 and network simultaneously.

- **Three Power Supply Modes**

Simultaneously support USB 5V, DC 12V power adapter and PoE power supply.

- **High Frame Rate**

1080P output frame rate up to 60fps.

4.2 Product Specification

Camera	
Video System	1080P/60, 1080P/50, 1080/P30, 1080P/25, 720P/60, 720P/50
Sensor	1/2.8 inch, CMOS, Effective Pixel: 2.07M
Scanning Mode	Progressive
Lens	12x, f=3.5mm ~ 42.3mm, F1.8 ~ F2.8
Digital Zoom	16x
Minimum Illumination	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR
Backlight Compensation	Support
Digital Noise Reduction	2D&3D Digital Noise Reduction
Signal Noise Ratio	≥55dB
Horizontal Angle of View	72.5° ~ 6.9°
Vertical Angle of View	44.8° ~ 3.9°
Horizontal Rotation Range	±170°

Vertical Rotation Range	-30° ~ +90°
Pan Speed Range	2.7° ~ 35.7°/s
Tilt Speed Range	2.7° ~ 31.5°/s
H&V Flip	Support
Image Freeze	Support
Number of Preset	255
Preset Accuracy	0.1°

Network Features

Video Compression	H.264/MJPEG
Video Stream	First Stream, Second Stream
First Stream Resolution	1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360
Second Stream Resolution	1280x720, 1024x576, 720x576 (50Hz), 720x480 (60Hz), 720x408, 640x360, 480x272, 320x240, 320x180
Video Bit Rate for First Stream	32Kbps ~ 20480Kbps
Video Bit Rate for Second Stream	32Kbps ~ 6144Kbps
Bit Rate Control	CBR, VBR
Frame Rate	50Hz: 1fps ~ 50fps, 60Hz: 1fps ~ 60fps
Audio Type	AAC
Audio Bit Rate	96Kbps, 128Kbps, 256Kbps
Protocols	TCP/IP, HTTP, RTSP, RTMP(S), ONVIF, DHCP, SRT (MJPEG format is not supported), Multicast, etc.

USB Features

Operate System	Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android
Color System/ Compression	MJPG/YUY2/H.264

Video Format	<ul style="list-style-type: none"> ● YUY2: 1080P@60fps (max.) ● H.264 AVC: 1080P@60fps (max.) ● MJPEG: 1080P@60fps (max.)
USB Audio	Support
USB Video Communication Protocol	UVC 1.1
UVC PTZ	Support

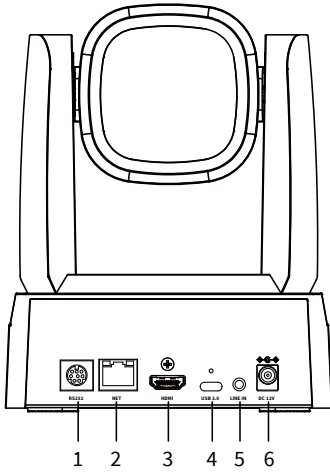
Input/Output Interface

Network Interface	1 x NET: 10M/100M Adaptive Ethernet Port
USB Interface	1 x USB 3.0: Type-C
LINE IN Interface	1 x LINE IN: 3.5mm Audio Interface
Communication Interface	1 x RS232: 8pin Min DIN, Max. Distance: 30m, Protocol: VISCA/Pelco-D/ Pelco-P
HDMI Output Interface	1 x HDMI 1.4b
Power Jack	JEITA type (DC 12V) /USB Type-C (USB 5V)/PoE

General Specifications

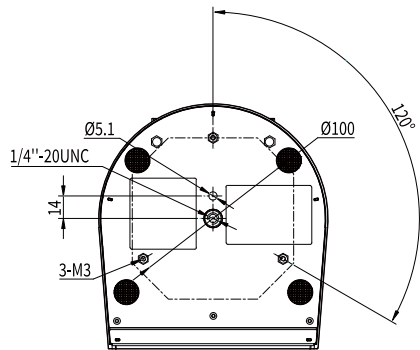
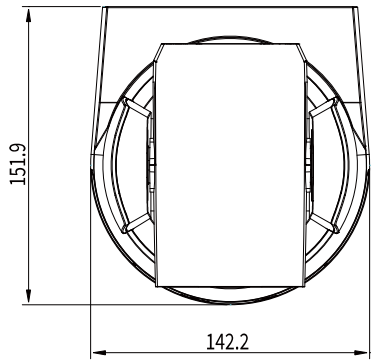
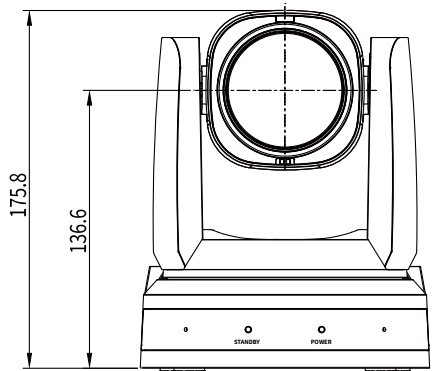
Input Voltage	DC 12V/USB 5V /PoE (802.3af)
Input Current	12V 1.0A (max.) /5V 1.5A (max.)
Operating Temperature	-10°C ~ 40°C
Storage Temperature	-40°C ~ 60°C
Power Consumption	12W (max.)
Dimension	142.2 x 151.9 x 175.8 (mm)
Net Weight	1.5Kg

4.3 Interfaces and Buttons

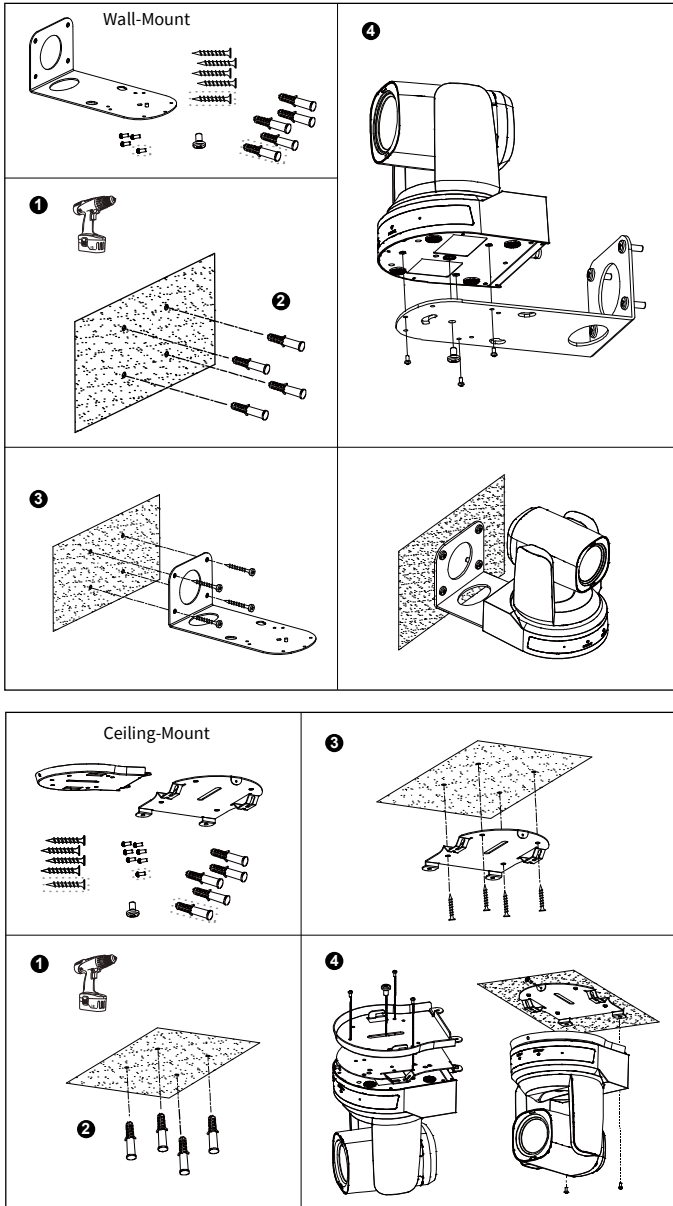



Item	Name
1	RS232 Interface
2	NET Interface
3	HDMI Interface
4	USB 3.0 Interface
5	LINE IN Interface
6	DC 12V Interface

4.4 Dimension

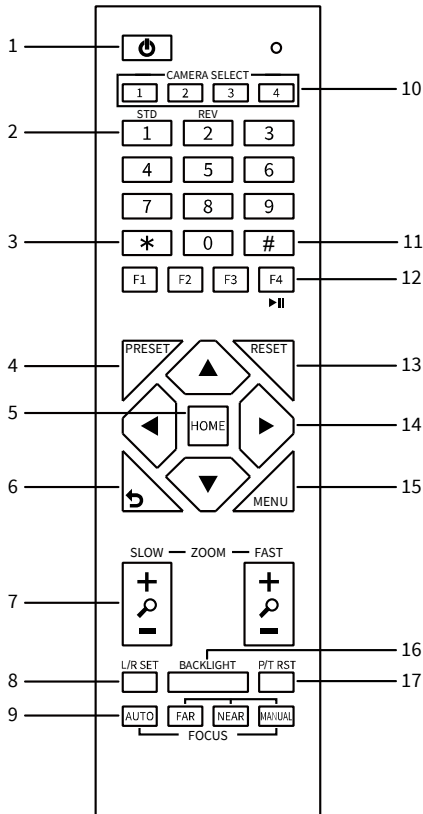


4.5 Installation



 **Note** The installation diagram is for reference only. The brackets and screws are not standard. For packing accessories, please refer to the actual product.

4.6 Remote Control



Key Description	
1. ⏻ (Standby) Key	Press to enter standby mode
2. Number Key	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 the preset position: [RESET] + Number key (0-9)

14. PTZ Control Key

PTZ moved according to the arrow indicates

15. MENU Key

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

Press to preset Pan/Tilt self-test.

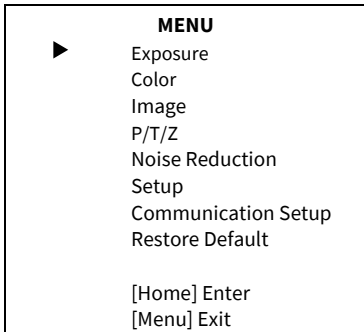
Shortcut Set

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

5 GUI Settings

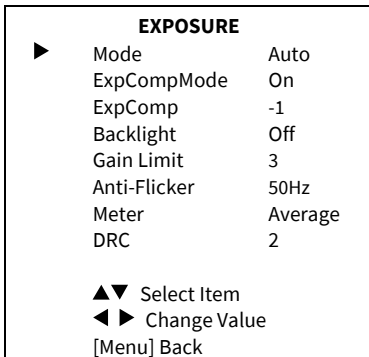
5.1 MENU

Press [MENU] key to display the main menu on the screen. Use the arrow key to move the cursor to desired item and press the [HOME] key to confirm to enter the corresponding sub-menu.



5.2 EXPOSURE

When in main menu page, move the cursor to [Exposure] and press [HOME] key to confirm to enter the exposure page as shown as below.

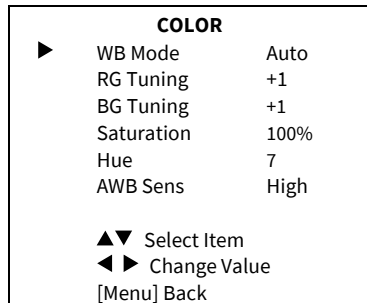


- Mode:** Auto, Manual, SAE, AAE, Bright.
- ExpCompMode** (Exposure Compensation Mode): On, Off (Effective only in Auto mode).
- ExpComp** (Exposure Compensation Value): -7 ~ +7 (Effective only in ExpCompMode On).
- Backlight:** On, Off (Effective only in Auto mode).
- Bright:** 0~17 (Effective only in Bright mode).

- Gain Limit:** 0 ~ 15 (Effective in Auto, SAE, AAE, Bright mode).
- Anti-Flicker:** Off, 50Hz, 60Hz (Effective in Auto, AAE, Bright mode).
- Meter:** Average, Center, Smart, Top (Effective in Auto, SAE, AAE, Bright mode).
- Iris:** F1.8, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11.0, Close (Effective in Manual, AAE mode).
- Shutter:** 1/30, 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 in Manual, SAE mode).
- Gain:** 0 ~ 7 (Effective only in Manual mode).
- DRC:** 0 ~ 8.

5.3 COLOR

When in main menu page, move the cursor to [Color] and press [HOME] key to confirm to enter the color page as shown as below.



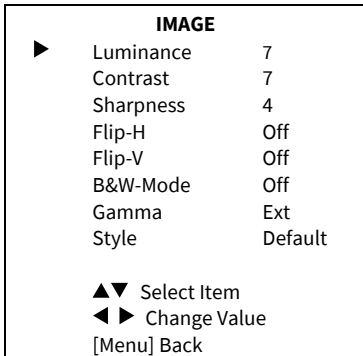
- WB-Mode** (White Balance Mode): Auto, Indoor, Outdoor, One Push, Manual, VAR.
- RG Tuning** (Red Gain Tuning): -10 ~ +10 (Effective only in Auto, One Push, VAR mode).
- BG Tuning** (Blue Gain Tuning): -10 ~ +10 (Effective in Auto, One Push, VAR mode).
- Saturation:** 60% ~ 200%.
- Hue:** 0 ~ 14.
- AWB Sens** (The White Balance Sensitivity): Low, Middle, High (Effective in Auto, One Push mode).
- RG** (Red Gain): 0~255 (Effective only in Manual mode).

BG (Blue Gain): 0~255 (Effective only in Manual mode).

Color Temp: 2500K ~ 8000K (Effective only in VAR mode).

5.4 IMAGE

When in main menu page, move the cursor to [Image] and press [HOME] key to confirm to enter the image page as shown as below.



Luminance: 0 ~ 14.

Contrast: 0 ~ 14.

Sharpness: Auto, 0 ~ 15.

Flip-H: On, Off.

Flip-V: On, Off.

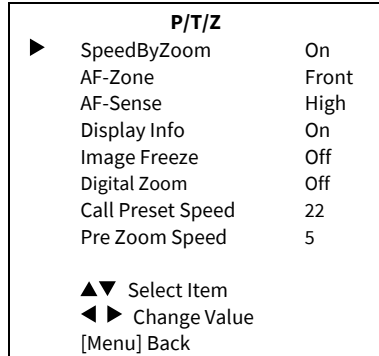
B&W-Mode: On, Off.

Gamma: Ext, Default, 0.45, 0.5, 0.56, 0.63.

Style: Default, Norm, Clarity, Bright, PC.

5.5 P/T/Z

When in main menu page, move the cursor to [P/T/Z] and press [HOME] key to confirm to enter the P/T/Z page as shown as below.



SpeedByZoom (The Depth of Field Ratio): On, Off.

AF-Zone (Auto Focus Area): Front, Top, Center, Bottom.

AF-Sense (Auto Focus Sensitivity): Low, Normal, High.

Display Info: On, Off.

Image Freeze: On, Off.

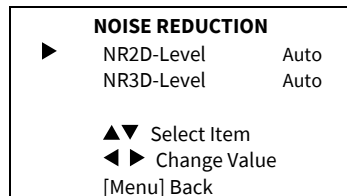
Digital Zoom: Off, 2x, 4x, 8x, 16x.

Call Preset Speed: 1 ~ 24.

Pre Zoom Speed: 0 ~ 7.

5.6 NOISE REDUCTION

When in main menu page, move the cursor to [Noise Reduction] and press [HOME] key to confirm to enter the noise reduction page as shown as below.

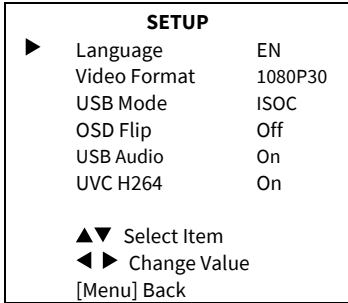


NR2D Level (2D Noise Reduction): Auto, Off, 1 ~ 5.

NR3D Level: (3D Noise Reduction): Auto, Off, 1 ~ 8.

5.7 SETUP

When in main menu page, move the cursor to [Setup] and press [HOME] key to confirm to enter the setup page as shown as below.



Language: EN, Chinese, Russian.

USB Format: 1080P60, 1080P50, 1080P30, 1080P25, 720P60, 720P50.

USB Mode: BULK, ISOC.

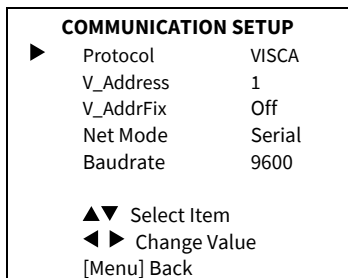
OSD Flip: On, Off.

USB Audio: On, Off.

UVC H264: On, Off.

5.8 COMMUNICATION SETUP

When in main menu page, move the cursor to [Communication Setup] and press [HOME] key to confirm to enter the communication setup page as shown as below.



Protocol: Auto, VISCA, PELCO-D, PELCO-P.

V_Address: 1 ~ 7 (Effective in Auto, VISCA protocol).

V_AddrFix: On, Off (When set to On, the 88 30 01 FF command does not work. Effective in Auto and VISCA protocol).

P_D_Address: 0 ~ 254. (Effective in Auto, PELCO-D protocol).

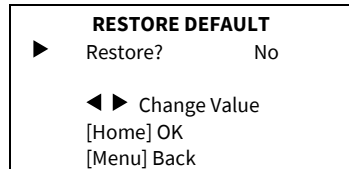
P_P_Address: 0 ~ 31. (Effective in Auto, PELCO-P protocol).

Net Mode: Serial, Paral (Effective in Auto, VISCA protocol).

Baudrate: 2400, 4800, 9600, 38400.

5.9 RESTORE DEFAULT

When in main menu page, move the cursor to [Restore Default] and press [HOME] key to confirm to enter the restore default page as shown as below.



Restore: Yes, No.



Notice

When selected “Yes” and confirm with [HOME] key, all parameters will restore to default, include the IR Remote address and VISICA address.



Note

GUI menu and parameters are subject to change without notice.

6 WEB Settings

6.1 Access Camera

Access <http://192.168.100.88> to pop up the login window, then input username (default: admin) and password (default: admin). After login, it will show as below:



6.2 Control Camera

All pages include two menu bars:

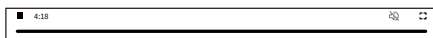
Real Time Monitoring: Video image displaying with function buttons.

Parameter Setup: Parameter configuring.

A. Video Viewing Window

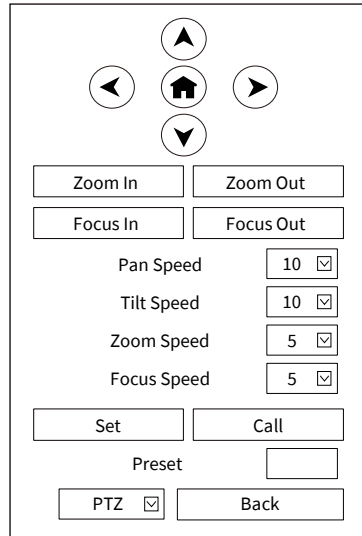
The video viewing window is same as video resolution, the bigger the resolution, the bigger the playing area. Double click the viewing window to show full screen, double click again, to return to initialized size.

Status bar in viewing window shown as below:



- 1) Video Pause: Click to pause the real-time video, click again to resume.
- 2) Audio Control: Click to adjust the volume or mute.
- 3) Full screen switch button.

B. PTZ Setup



1) Pan and Tilt Control

The direction arrows and home button allow you to manually drive the camera to 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 button allow for fine manual focus adjustment if the camera has any auto focusing problems on difficult object.

4) PTZ Speeds

Pan speed rate can be set to 1 ~ 24, Tilt speed rate can be set to 1 ~ 20. Zoom and Focus speed rate can be set to 0 ~ 7.

5) PTZ Presets

When the PTZ turns to the position that you would like to return to later, you can set presets for quick recall.

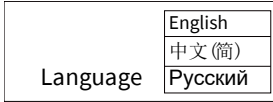
Type a number (0 ~ 254) into the preset box and click "Set" button to save.

When the PTZ turn to other position, input the preset number and click "Call" button to turn the PTZ back to the preset position.

6) PTZ / OSD Dropdown

Move the cursor to dropdown menu, select and click “OSD” to open the on-screen menu and do menu settings on the interface.

C. Language Selection



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

6.3 Video Settings

Video Settings

Video Format

Encode Level

First Stream

Encode Codec

Resolution

Bit Rate

Frame Rate fps

I Key Frame Interval

Bit Rate Control

Slice Split Enable

Split Mode

Slice Size blocks/bytes

Second Stream

Encode Codec

Resolution

Bit Rate

Frame Rate fps

I Key Frame Interval

Bit Rate Control

Slice Split Enable

Split Mode

Slice Size blocks/bytes

1) Video Format

Support 50Hz (PAL) and 60Hz (NTSC) formats.

2) Encode Level

Support baseline, mainprofile and highprofile.

3) Encode Codec

Support H264 and MJPEG.

4) Resolution

First stream support 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360. Second stream support 1280x720, 1024x576, 720x576 (50Hz), 720x480 (60Hz), 720x408, 640x360, 480x272, 320x240, 320x180; The bigger the resolution, the clearer the image, and the larger the code stream, the more network bandwidth will be taken.

5) Bit Rate

You can specify the bit rate, the larger of the bit rate, the clearer of the image. The configuration of the bit rate needs to be combined with the network bandwidth. When the network bandwidth is narrow and the bit rate is configured larger, the video stream cannot be transmitted normally, and the visual effect will be worse.

6) Frame Rate

You can specify the size of the frame rate, the greater the frame rate, the smoother the image, the smaller the frame, the more sense of beating.

7) I Key Frame Interval

Set the interval between two I frames, the bigger the interval, the slower the response when opening the image for the first time.

8) Bit Rate Control

Two modes for bit rate control:
 CBR (Constant Bit Rate): Video coder will be coding according to the preset speed.
 VBR (Variable Bit Rate): Video coder will adjust the speed based on preset speed to gain the best image quality.

9) Slice Split Enable

Enable or disable the Slice Split function.

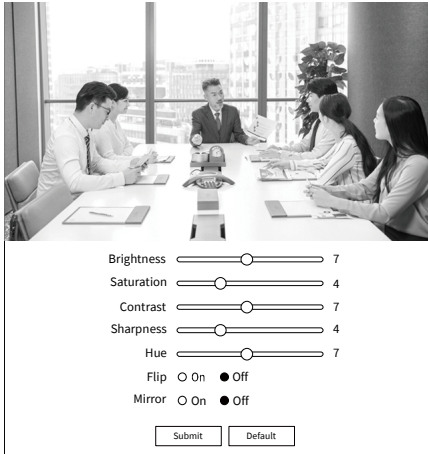
10) Split Mode

Split Mode Fixed bytes.

11) Slice Size

Size for slice.

6.4 Image Settings



1) Brightness

Image Bright: 0~14 (Default is 7).

2) Saturation

Image Saturation: 0~14 (Default is 4).

3) Contrast

Image Contrast: 0~14 (Default is 7).

4) Sharpness

Image sharpness: 0 ~ 16 (Default is 4).

5) Hue

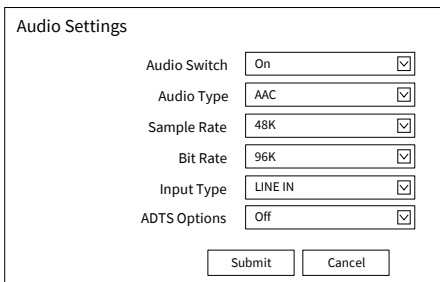
Image Hue: 0~14 (Default is 7).

6) Flip & Mirror

Flip: Enable or disable the Flip function.

Mirror: Enable or disable the Mirror function.

6.5 Audio Settings



1) Audio Switch

Enable or disable audio switch.

2) Audio Type

Audio type AAC.

3) Sample Rate

Sample rate 48K.

4) Bit Rate

Bit rate 96K, 128K and 256K selectable.

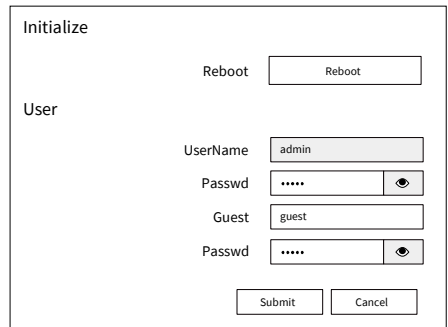
5) Input Type

Input type Line in.

6) ADTS Options

Options: On, Off.

6.6 System Settings



1) Reboot

Click "Reboot" to restart system.

2) Username and Password

Modify the password of username and guest (use letters and Numbers only).

6.7 Network Settings

Lan Settings

IP Configuration Type Fixed IP Address

IP Address

Subnet Mask

Gateway

DNS Address

MAC Address

Port Settings

HTTP Port

RTSP Port

TCP Port

UDP Port

Sony Visca

RTMP(S) Settings

First Stream On Off Video Audio

MRL

Second Stream On Off Video Audio

MRL

SRT Settings

SRT On Off

SRT Port

SRT Encryption None

SRT Password

RTSP Settings

RTSP Auth On Off

ONVIF Settings

ONVIF On Off

ONVIF Auth On Off

Multicast Settings

Multicast On Off

Address

Port

NTP Settings

NTP Time Sync On Off

Time Zone

Server Address

Time Interval (min)

Main Time Show On Off

Position

Sub Time Show On Off

Position

1) Lan Settings

The default the IP address is 192.168.100.88, the MAC address cannot be modified.

2) Port Settings

A. HTTP Port

The IP address identifies a network device and multiple network programs can run on the device, each network program uses the network port for data transmission. The port setting on this page is to set up which port the WEB SERVER program uses to transmit. During port mapping, it needs to be consistent with the port number (default is 80).

B. RTSP Port

Set up the RTSP port, default is 554.

C. TCP Port

Set up the TCP port, default is 5678.

D. UDP Port

Set up the UDP port, default is 1259.

E. Sony Visca

Sony Visca 52381.

3) RTMP(S) Settings

Set the MRL of RTMP(S) and select "on", "off", "video" and "audio" functions to enable or disable video and audio in the two streams.

4) SRT Settings

Turn On/Off SRT and set up the SRT Port, Encryption and Password.

5) RTSP Settings

Turn On/Off the RTSP Auth.

6) ONVIF Settings

Turn On/Off the ONVIF and ONVIF Auth.

7) Multicast Settings

Turn On/Off Multicast, set up the Multicast Address (default is 224.1.2.3) and Port (default is 6688; 6688 is the multicast port of the first stream and 6690 is the multicast port of the second stream).

8) NTP Settings

Turn On/Off NTP time sync, Main time show and Sub time show; select the Time Zone; set up the Server address, Time interval and the Time Show Position of the two streams.

6.8 Device Information

Information	
Device ID	HD Camera
Device Type	G46.V
Software Version	SOC v9.0.38 - ARM v7.3.445
Webware Version	v1.5.5
<input type="button" value="Submit"/> <input type="button" value="Cancel"/>	



The above information is for reference only, please refer to the real product for the actual specification.

6.9 Download the Upgrade Program

If you need the camera upgrade program, please contact the manufacturer.



WEB interface and parameters are subject to change without notice.

7 Troubleshooting

Image

- The monitor shows no image
 - 1) Check that the camera power supply is connected, the voltage is normal, and the power indicator is always on.
 - 2) Turn off the power switch to check whether the camera is self-testing.
 - 3) Check the cable of video platform and TV whether in correct connection.
- Image jitters after the camera is properly connected

- 1) Check that the camera installation position is stable.
- 2) Check that any vibrating machinery or object near the camera.

- There is no video image in browser

IE browser does not support H5, you need to use VLC plug-in to view videos. Please access VLC website (<http://www.videolan.org/vlc>) to download and install the 32-bit VLC media player, after installation, the video image will be displayed normally when access the camera. Other mainstream browsers already support H5 and do not need to install the VLC plug-in.

- Unable to access through the browser
 - 1) Using PC to access the network to test that the network access can work properly to eliminate the network fault caused by cable and PC virus until the PC and camera can ping each other.
 - 2) Disconnect the network, connect camera with PC separately and reset the IP address of PC if necessary.
 - 3) Check that the IP address, subnet mask and gateway settings is correct.
 - 4) Check that the MAC address is conflicts.
 - 5) Check that the web port is modified, the default setting is 80.

● Forget the IP address or login password
 The default IP address is: 192.168.100.88; the default username and password are: admin.

Control

- Remote control does not work
 - 1) Check and replace with new batteries.
 - 2) Check that the camera is in normal working mode.
 - 3) Check the address key of remote control can match the camera.
- Serial port cannot control
 - 1) Check the protocol, address and bit rate of the camera are consistent.
 - 2) Check the control cable is properly connected.

