

Color Video Conference Camera

USER MANUAL



Video conference camera overview

Preface

Thank you very much for using our company's video conferencing products! Before using this product, please read the instruction manual carefully.

This new high-definition camera made for the live broadcasting industry adopts high-quality image sensors, equipped with imported high-performance digital processing chips, and adopts selected ISP processing technology and algorithms to make the image effect vivid, high-definition, and good color reproduction.

In addition to the IR remote control, the USB interface can also be used to remote precise control.

Safety requirement

In order to avoid camera and other connecting equipment damaged and lead to potential danger, please follow the rules as below:

- Only professional technician can install and maintenance;
- Prohibit setting on the places which raining or dampness, using unit under stated temperature, humidity and power;
- Using accessories from original factory or allowed;
- Once exchange product or repair happen please use universal meter test before using;
- Please use soft and dry rag for cleaning, not strongly corrosive cleanser for avoiding mangled for outside of camera or lens;
- Take care using and no squeeze crust avoiding camera broken;
- Bracket must be endures 3 times weight of camera at least.

Features

- It can achieve maximum 3840*2160 resolution, vividly present any expression and movement, and enjoy a smooth live broadcasting experience;
- Support 20x lossless zoom, easily show more details;
- Support USB/HDMI/3G-SDI/IP to simultaneously output video signal;
- A variety of picture styles, whether it is in beauty, jewelry or clothing mode, more scene picture styles can be switched at will;
- Support YUY2, MJPG, video compression formats;
- Made of all-metal aluminum alloy material, showing good product quality;
- It is specially designed for vertical screen live broadcasting scenes, with a common 1/4 screw port on the body, supports horizontal and vertical screen installation mode, quickly realizes horizontal and vertical screen image output without cropping, and always guarantees the quality of live broadcasting images.

Packing list

Please check up all devices inside while open package.

Video camera-----1

Remote controller-----1

USB cable-----1

Power adapter-----1

User manual-----1

Serial cable -----1

Video camera (1)



Remote controller (1)



Power adapter (1)



USB cable (1)



User manual (1)

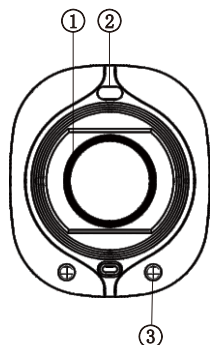


Serial cable (1)



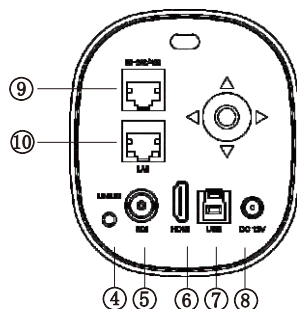
Parts and Introduction

Front

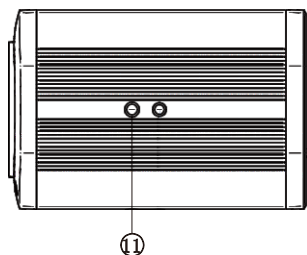


- 1. Lens
- 2. Tally light
- 3. Infrared receiver

- 4.LINE IN
- 5.SDI
- 6.HDMI video output
- 7.USB3.0 video output
- 8.DC IN 12V input
- 9.RS-232/422
- 10.LAN



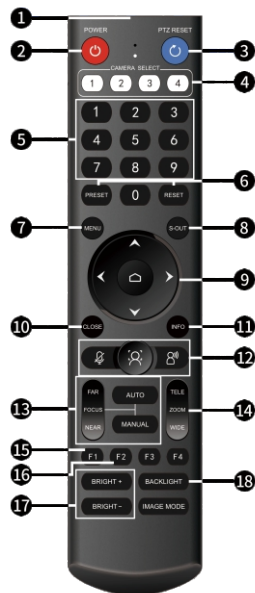
Bottom



- 11. Installation hole

Remote Controller

- ① IR transmit
- ② POWER
- ③ Lens RESET
- ④ CAMERA SELECT
- ⑤ POSITION: (Number area; PRESET: press PRESET then press 1-9 for set up preset position)
- ⑥ RESET: (Press RESET and then press 1-9 for eliminate preset position)
- ⑦ MENU
- ⑧ S-OUT: Press and hold for 3 seconds to switch to 720P50 resolution
- ⑨ PAN-TILT: No pan and tilt function; HOME: Camera optical zoom returns to the minimum
- ⑩ CLOSE THE MENU
- ⑪ INFO: Screen information display
- ⑫ Reserved buttons have no function
- ⑬ FOCUS: (auto or manual)
- ⑭ ZOOM: (Telephoto or Wide Angle)
- ⑮ F1: Press and hold for 3 seconds to quickly switch the image normal and inversion
- ⑯ F2: Press and hold for 3 seconds to quickly restore the factory settings
- ⑰ Brightness adjustment: bright-/ bright+
- ⑱ BACK LIGHT



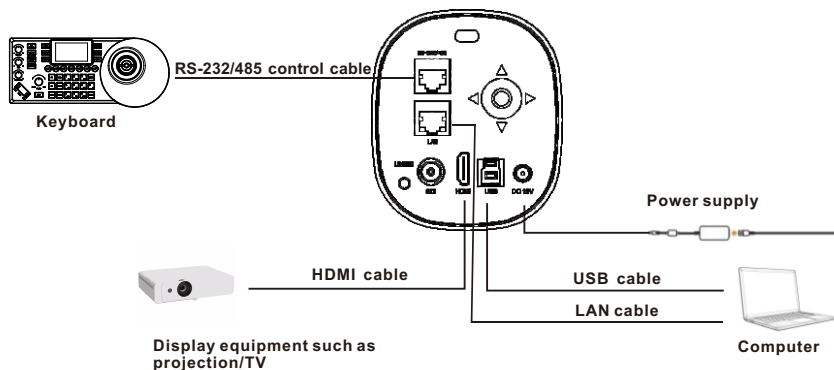
*Infrared address modifying operation (combination buttons):

Press the button ⑩ over 5 seconds, then press F1/F2/F3/F4 to switch infrared address 1/2/3/4 respectively.

After the factory settings are restored through the menu or long press F2, the infrared address does not reset.

Connection Instruction

Please check if all the connection is correct before starting the camera.



The Menu

Due to product iteration, the product menu is subject to change without prior notice, subject to the actual object .

Serial Port

This option can set protocol, address, baud rate, speed scale, speed limit when the camera is communicating through serial port.

Focus

This option can set Focus related functions, including digital zoom, focus mode, zoom speed, tally led, etc.

Exposure

This option can set exposure mode including full auto exposure, manual exposure, shutter priority, iris priority, bright priority, etc.

White Balance

This option can set white balance mode including auto, manual, indoor, outdoor, one push, ATW, etc.

Image

This option allows you to set image effects, including 2D/3D noise reduction, contrast, chroma, acutance, gamma, wide dynamic range, defog, anti flicker, etc.

Audio

This option can set the switch of audio, when turn on, audio signal output can be accessed through LINE-IN.

Video

This option can set the megapixel of camera as well as image mode.

Network

This option can set network information of camera, including DHCP on/off. When the DHCP is off, we can edit camera IP address, mask, gateway by using “0-9” of the IR remote controller.

System

This option can set language of camera and IR remote control address bits, review present version and reset default factory settings.

Exit

Exit menu.

MENU	
▶ Serial Port>	
Focus>	
Exposure>	
White Balance>	
Image>	
Audio>	
Video>	
Network>	
System>	
Exit	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

The Menu

1. Serial Port Settings

Serial Port Settings>	
► Protocol:	<Auto>
Address:	<1>
Address Fixed:	<OFF>
Baud Rate:	<9600>
Speed Grade:	<Standard>
Speed By Zoom:	<OFF>
RS-485:	<ON>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

2. Focus Settings

Focus Settings>	
► Dzoom:	<OFF>
Focus Mode:	<Auto>
AF Sensitivity:	<Normal>
Zoom Speed:	<Normal>
Installation:	<Normal>
Reload Preset 1:	<ON>
Tally Led:	<ON>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

Serial Port Settings Sub Menu

Protocol: Can set auto/visca/pe1co-p/pelco-d.

Address: Can set camera serial communication address.

Address Fixed: This option is used to cover automatic distributing order under VISCA protocol.

Baud Rate: Can set serial communication baud rate, 2400/4800/9600/ 19200/ 38400/115200.

Speed Grade: Can set speed range of PTZ(only take effect when using serial communication), standard/ expand.

Speed By Zoom: Can set on/off of pan tilt speed and lens magnification linkage.

RS-485: This option can set the camera to enable/disable the RS-485 serial port return code function.

Focus Settings Sub Menu

Dzoom: on/off.

Focus Mode: auto/ manual.

AF Sensitivity: This option is for setting the AF sensitivity of camera, there are 3 levels: low, standard and high levels.

Zoom Speed: This option is for setting the zoom speed of camera, there are 3 levels: low, standard and high levels.

Installation: This option can set image flip effect of camera in order to match installation of desktop and ceiling.

Reload Preset: This option can set the function that automatically call number 1 preset position after starting camera.

Tally Led: Can set tally light on/off.

The Menu

3.Exposure Settings

Exposure Settings>	
▶ AE Mode:	<Auto>
Backlight:	<OFF>
De-Flicker:	<OFF>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

Exposure Submenu

Auto Exposure: In Auto Exposure mode, the backlight compensation can be adjusted on/off; **De-flicker:** The camera's refreshed rate can be adjusted in this option, solving the problem of screen flicker caused by light.

Iris priority : Aperture level can be adjusted

Shutter priority: Shutter value can be adjusted

Manual exposure: Gain can be adjusted

4.White Balance Settings

White Balance Settings>	
▶ WB Mode:	<Auto>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

White Balance Settings Sub Menu

WB Mode: auto, manual, indoor, outdoor, one push, ATW.

Manual mode:
Red gain is adjustable, 0-255.
Blue gain is adjustable, 0-255.

The Menu

5. Image Settings

Image Settings>	
► 2D NR:	<128>
3D NR:	<128>
Bright:	<128>
Contrast:	<128>
Color Gain:	<128>
Sharpness:	<128>
HUE:	<128>
Gamma	<1>
Flip:	<OFF>
Mirror:	<OFF>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

6. Audio Settings

Audio Settings>	
► Audio:	<OFF>
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

7. Video Settings

Video Settings>	
► Video Format:	<3840x2160p30>
SDI Video Format:	<1920x1080p60>
HDMI Mode:	<DVI>
Color Space:	<RGB>
Enter>	
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

Image Settings Sub menu

2D NR: 2D noise reduction, 0-255.

3D NR: 3D noise reduction, 0-156.

Bright: Can set image bright, 0-255.

Contrast: Can set image contrast, 0-255.

Color Gain: Can set image color gain, 0-255.

Sharpness: Can set image sharpness value, 0-255.

HUE: Can set image color saturation, 0-255.

Gamma: Can set image gamma, 1-15.

Flip: Can set the camera image to flip up and down 180 degrees.

Mirror: Can set the camera image to flip left and right 180 degrees.

Audio Settings Sub menu

Audio: This option can set the HDMI/SDI audio turn on/off.

Video Settings Sub menu

Video Format: This option can set the current resolution of the HDMI.

SDI Video Format: This option can set the current resolution of the SDI.

HDMI Mode: This option can set the HDMI/DVI mode.

Color Space: This option can set RGB/YCbCr.

The Menu

8. Network Settings

Network Settings>	
► DHCP:	<OFF>
IP Address:	192.168.1.118
Subnet mask:	255.255.255.0
Default gateway:	192.168.1.1
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

Network Settings Submenu

Can check network information of camera.

Can set DHCP ON/OFF

9. System Settings

System Settings>	
► Language:	<English>
Version:	V1.2.15
Preset Color:	<ON>
Remote address:	<1>
Reset Device>	
Back>	
▲▼ Roll [HOME] Enter	◀▶ Change [CLOSE] Back

System Settings Submenu

Language: Camera menu operation language can be set, simplified Chinese/English.

Version: You can view the current software version, which can not be modified.

Preset Color: This option can be used to set the camera to enable/disable the function of saving the image effect in the preset position.

Remote address: Can be set to receive the remote control address channel of the infrared remote control.

Reset Device: You can restore to the default factory settings for all the camera parameters.

Network Connections

Connection mode

Direct connection mode: connect the camera directly to the computer with a network cable.

Network connection mode: connect the camera to the Internet network, and access the network through a router or switch. Users can log in to the device through the browser.

The computer must have the network segment where the camera IP is located. If the network segment is not added, you will not be able to log in. If the default IP address of the camera is 192.168.1.118, you need to add 1 network segment to the computer. The specific method is as follows :

Firstly open the computer network local connection properties window, select “Internet Protocol Version 4 (TCP/IPv4)” double click or click the property “Internet Protocol Version 4 (TCP/IPv4)” enter the properties window, click “Advanced” to enter advanced TCP/IP Set the IP address and subnet mask in the IP address field. After the addition is completed, click OK to complete the IP network segment addition. Users can add corresponding network segments according to the modified camera IP address.

Network login

WEB login:

Enter the device IP address in the browser address bar to default to 192.168.1.118, and press Enter to enter the web client login interface. Enter “admin” in the [Username] field, “admin” in the [Password] field, and pass the verification to enter the background preview interface.

Language selection: The selected language can be displayed at the bottom of the login interface.

Preview and pan/tilt

After successful login, enter the management interface, the default entry is the video preview interface. On the left side of the preview interface, is the image preview area, and on the right side of the preview interface, is the control area, which can realize the following functions: the lens returns to the 1X position, the lens zooms out and in, adjusts the near focus and far focus, adjusts the zoom speed level, and adjusts the focus speed level; set the preset position Number, starts counting from number 1, which is the number 1 preset position; save the currently set preset position; delete the corresponding preset position; call the corresponding preset position.

Configuration

Click “Configuration” at the top of the interface to enter the software parameter configuration interface, which mainly includes the following options: system, network, audio and video, image, and user management.

Configuration

System

- 1) System settings: display the basic information of the device (not adjustable), time configuration is used to configure the system time;
- 2) System maintenance: can be used for software upgrade, restore factory settings and restart the device.

Internet

1) Basic Configuration.

TCP/IP configuration.

DHCP: Set whether to enable automatic IP acquisition.

IP address: set the IP address, the default is 192.168.1.118, where the IP is the address of the login web page.

Subnet Mask: Set the subnet mask (default is 255.255.255.0).

Default Gateway: Set the default gateway (192.168.1.1 by default).

Preferred DNS Server: Set the DNS server (default is 192.168.1.1).

DNS state selection.

Port Configuration.

HTTP port: Set the HTTP port, the default is 80.

RTSP port: Video Acquisition port, the default is 554.

ONVIF port: Set the ONVIF port, the default is 2000.

Service Port: Set the service port, the default is 90.

2) Advanced configuration.

Configurable SRT, RTMP, RTSP and other related parameters.

Video&Audio

1) Video

Set the video compression format, the default main/sub stream compression format is H.264/H.265;

Stream: Set different video output modes and select different streams. Including main stream and sub stream, the main stream can be 1920*1080; the substream can be 640*480, 640*360, 480*360, 352*288, 320*240, 176*144;

Video frame rate: set the video frame rate;

I frame interval: set key frame interval;

Bit rate type: default variable bit rate;

Image quality: Under the condition of a variable bit rate, the image quality can be selected;

Bit rate upper limit: 128~20000 optional.

2) Audio

Configure Network Audio.

Configuration

Image

Image parameters The image parameters interface can make the following adjustments to the image effect.

Image adjustment: it can set picture brightness, contrast, saturation, sharpness, chroma, 3D noise reduction and other functions.

Exposure: Exposure mode, shutter speed, gain, aperture, etc. can be set.

Image enhancement: left and right mirroring can be set, up and down mirroring, backlight compensation.

White balance: White balance mode, red and blue gain effects image can be set.

User Administer

Used to modify username and password.

Technical parameter

Due to the continuous iteration of the product, if there is any parameter change, it is subject to the actual product.

Image Sensor	SONY 1/2.8" Progressive CMOS
Effective Pixels	8.5 Megapixels Image Sensors, 8.29 Megapixels Effective Pixels
Resolution	HDMI: 4KP30/25, 1080P60/59.94/50, 1080P30/29.97/25, 720P60/50 USB: 3840*2160, 1920*1080, 1280*720, 800*600, 640*480, 640*360, 320*240 SDI: 1080P60/59.94/50, 1080P30/29.97/25, 720P60/50
Signal	PAL/NTSC
Lens	20X optical zoom
Focal Length	20X: f=5.2mm(W)~104mm(T)
Horizontal View Angle	20X: 58.7°(W)~3.2°(T)
Focus System	Auto/Manual
Minimum Illumination	0.1Lux
Exposure Control	Auto/Manual
Shutter	1/1 ~ 1/10000s
Gain	Auto/Manual
White Balance	Auto/Indoor/Outdoor/Manual
Image Effect	Full color/black and white/image flip
S/N Ratio	≥ 50db
Preset position	9 by remote control
Video Output	HDMI、3G-SDI、USB3.0、IP (NDI optional)
Power	12V DC(10.8 ~ 13.0V DC)
Operating Temperature	0° ~40°
Storage Temperature	-10° ~60°
Size	(L)152×(W)88 ×(H)102mm
Weight	800g
Color	Black
Protocol	SONY VISCA、PELCO P/D
Control Mode	RS-232C、RS- 422/485、IP
Accessories	DC 12V power adapter, IR Remote, Operation manual, RS-232C cable, HDMI cable, USB3.0 cable, Bracket