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 1920*1080 full HD resolution, up to 60 frames of smooth high-quality images, vividly present any expression and movement, and enjoy a smooth live broadcasting experience;
- Built-in TOF laser ranging module, combined with advanced algorithms, fast, accurate and stable focusing, designed for live broadcast;
- Support 10x lossless zoom, easily show more details;
- Support USB 3.0 and HDMI dual interface to simultaneously output 1080P 60-frame 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, H264 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**

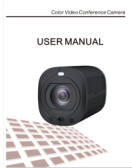**Video camera (1)**

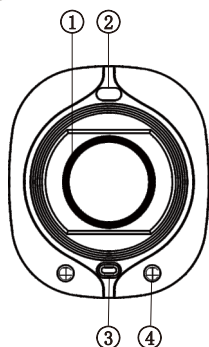**Remote controller (1)**
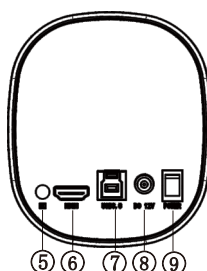

Power adapter (1)

USB cable (1)

User manual (1)

Parts and Introduction
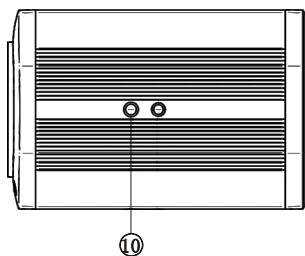
1. Lens
2. Tally light
3. TOF laser ranging
4. Infrared receiver

5.Infrared receiver
6.HDMI video output
7.USB3.0 video output
8.DC IN 12V input
9.Power on/off

Bottom

10. Installation hole
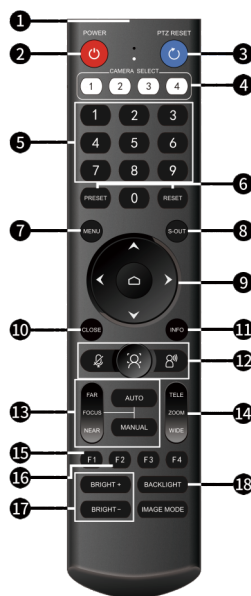
Remote Controller

1 **IR transmit**
2 **POWER**
3 **PAN-TILT 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 press1-9 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 retures 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+**
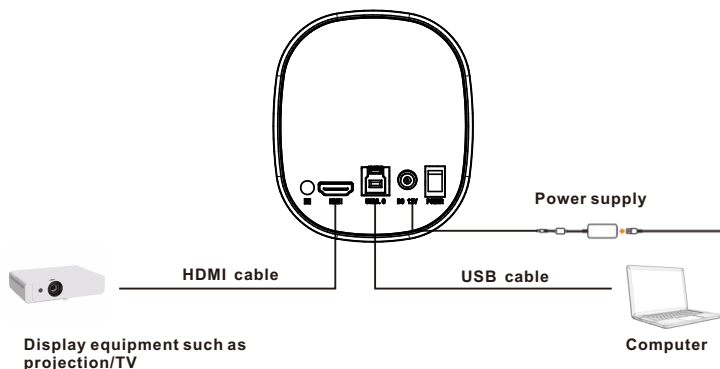18 **BACK LIGHT**

*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.

Power supply

HDMI cable

USB cable

Display equipment such as projection/TV

Computer

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

PTZ:
This option can set PTZ related functions, including digital zoom, focus mode, focus sensitivity, guard position, preset freeze, etc.;

Exposure:
This option can set exposure-related functions, including automatic exposure, manual exposure, aperture priority, shutter priority and other exposure modes;
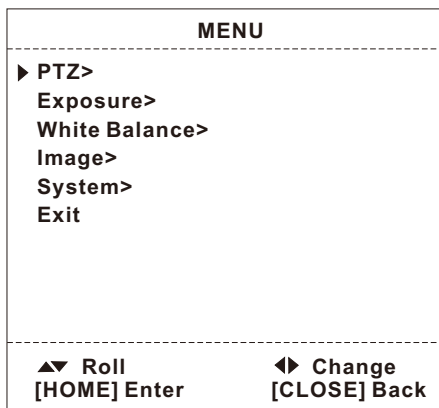
White Balance:
This option can set the white balance mode, including automatic, manual, indoor, outdoor, automatic tracking, keying and other white balance modes;

```
                    MENU
- - - - - - - - - - - - - - - - - - - - - - - - -
▶ PTZ>
  Exposure>
  White Balance>
  Image>
  System>
  Exit



- - - - - - - - - - - - - - - - - - - - - - - - -
  ▲▼  Roll              ◀▶  Change
  [HOME] Enter          [CLOSE] Back
```

Image:
This option can be used to set image effects, including style, 3D noise reduction, contrast, saturation, hue, sharpness, gamma, brightness, flip, mirror, etc.;
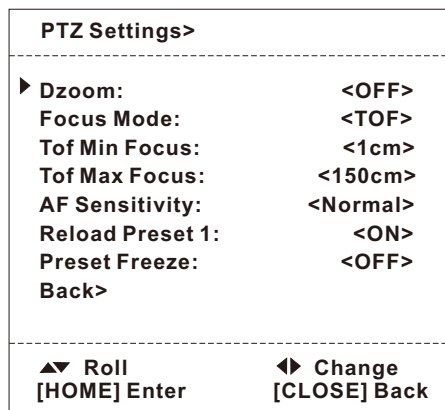
System:
This option can set the language of the camera, video format, infrared remote control address, etc., and can view the current version information and reset the default settings of the device.

The Sub Menu

1.PTZ Settings

```
  PTZ Settings>
- - - - - - - - - - - - - - - - - - - - - - - - -
▶ Dzoom:                    <OFF>
  Focus Mode:               <TOF>
  Tof Min Focus:            <1cm>
  Tof Max Focus:          <150cm>
  AF Sensitivity:         <Normal>
  Reload Preset 1:           <ON>
  Preset Freeze:            <OFF>
  Back>

- - - - - - - - - - - - - - - - - - - - - - - - -
  ▲▼  Roll              ◀▶  Change
  [HOME] Enter          [CLOSE] Back
```

PTZ Settings Sub Menu

Dzoom: on/off.

Focus mode: automatic/manual/PTZ trigger/ assist focus (TOF) can be set.

Tof min focus: You can set the effective range of TOF function.

Tof max focus: You can set the effective range of TOF function.

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

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

Preset freeze: After the function is enabled, the picture freezes statically during the preset call process, and the real-time picture resumes after the call is completed.

The Sub Menu

2.Exposure Settings

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

Exposure Settings Sub Menu

Backlight Can be adjustable in auto mode, open/off.
De-Flicker:This option can set the reflesh frequency of camera to resolve problem of image blink caused by light source.

Iris pri: Iris value can be adjustable in iris priority mode, Close-1/ 1.8.
Exposure compensation can be adjustable in auto mode, 0-15.
Backlight can be adjustable in auto mode, open/off.

Shutter pri: Shutter value can be adjustable in shutter priority mode, 1/1-1/ 10K.
Exposure compensation can be adjustable in auto mode 0-15.
Backlight can be adjustable in auto mode, open/ off.

Bright pri: Bright value can be adjustable in bright priority mode, 0-27.

Manual: Exposure compensation can be adjustable in manual mode 0-15.
Iris value can be adjustable in manual mode, Close-1/1.8.
Shutter value can be adjustable in manual mode, 1/ 1-1/10K.

3.White Balance Settings

```
White Balance Settings>
--------------------------------------
▶ WB Mode:              <Auto>
  Back>


--------------------------------------
  ▲▼  Roll             ◀▶  Change
  [HOME] Enter         [CLOSE] Back
```

White Balance Settings Sub Menu

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

Manual mode:
Red gain is adjustable, 0-100.
Blue gain is adjustable, 0-100.

The Sub Menu

4.Image Settings

```
Image Settings>
----------------------------------------
▶ Style:                      <Default>
  3D NR:                          <5>
  Bright:                         <50>
  Contrast:                       <50>
  Color Gain:                     <50>
  Sharpness:                      <50>
  HUE:                            <50>
  Gamma                           <1>
  Flip:                          <OFF>
  Mirror:                        <OFF>
  Back>

----------------------------------------
  ▲▼  Roll           ◀▶  Change
  [HOME] Enter       [CLOSE] Back
```

Image Settings Sub menu

Style: Beauty, jewelry, clothing and other styles can be set.

3D NR: 3D noise reduction, 0-5.

Bright: Can set image bright, 0-100.

Contrast: Can set image contrast, 0-100.

Color Gain: Can set image color gain, 0-100.

Sharpness: Can set image sharpness value, 0-100.

HUE: Can set image color saturation, 0-100.

Gamma: Can set image gamma, 0-4.

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.

5.System Settings

```
System Settings>
----------------------------------------
▶ Language:                   <English>
  Video Format:          <1920x1080p25>
  HDMI Mode:                    <HDMI>
  Color Space:                   <RGB>
  Remote Control Address:         <1>
  Version:                      V2.1.6
  Reset Device>
  Back>
----------------------------------------
  ▲▼  Roll           ◀▶  Change
  [HOME] Enter       [CLOSE] Back
```

System Settings Sub menu

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

Video format: This option can set the current resolution.

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

Color space: This option can set RGB/YCbCr.

Remote control address: the remote control address channel for receiving infrared remote control can be set.

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

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

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	2.07 Megapixels
Resolution HD	HDMI: 1080P 60/50/25/30/; 720P60/50 USB 3.0: MJPG: 1920*1080 USB 2.0: MJPG/YUY2/H.264: 1920*1080，1280*720，800*600，704*576，640*480，320*240
Signal	PAL/NTSC
Lens	10X optical zoom
Focal Length	f=4.32mm(W)～40.9mm(T)
Horizontal View Angle	67.5°(W)～7.6°(T)
Focus System	Auto/Manual/TOF
Minimum Illumination	0.5Lux
Exposure Control	Auto/Manual
Shutter	1/25～1/10000s
White Balance	Auto/Manual/Indoor/Outdoor/Automatic tracking/Keying
Image Effect	Full color/image flip
S/N Ratio	≥50db
Video Output HD	HDMI、USB3.0
Power	12V DC(10.8～13.0V DC)
Size	(L)152×(W)88×(H)102mm
Weight	about 800g
Color	Black
Accessories	Power adapter, IR Remote, User manual, USB cable