Chameye

USB IP Streaming

HDMI 4K PTZ CAMERA

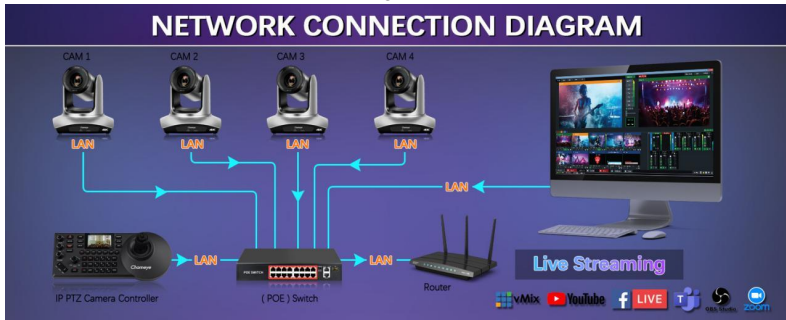# > > 20x Optical Zoom <<

（User Manual V1.0)

Technical Support:

- **E-Mail:** Sandy@chameye.net

- **Website:** www.chameye.net

- **Phone:** 0086-18588412232

- **Please Note:** Only NDI version cameras have NDI function.

Quick Start

Network Connection:

Please check the classic network connection diagram.

Notes:

(1) **DHCP:** All Chameye cameras enabled DHCP by default

(2) **Router:** You'd better have a router in your network, because only router can assign IP addresses for the devices. It will make the setup much more easier.

(3) **IP Address:** Use HDMI connect camera to TV/HDMI monitor, go to Menu-> Network, then you can see camera's IP address.

(4) **Webpage:** Login camera's webpage by visit camera's IP address in web browser(recommend Google Chrome or Firefox):

User Name: admin   Password: admin

Connect Camera to Chameye E300 PTZ controller.

Step 1: please do the network connection as above

Step 2: Press "search" button on E300 PTZ controller, you can see camera's IP address and control protocol listed on the screen

Step 3: Recommend to choose Visca over IP(because under this control protocol, you can preview

camera's picture on PTZ controller's LCD screen)

Step 4: Add to shortcut keys and choose CAM 1 ~7 to save, for example choose: CAM 1

Step 5: Press shortcut key CAM 1, now,you can control the camera.

Step 6: if you have more than cameras need to add to the controller, please do step 2-step 4 again, and assign cameras to CAM2~CAM7
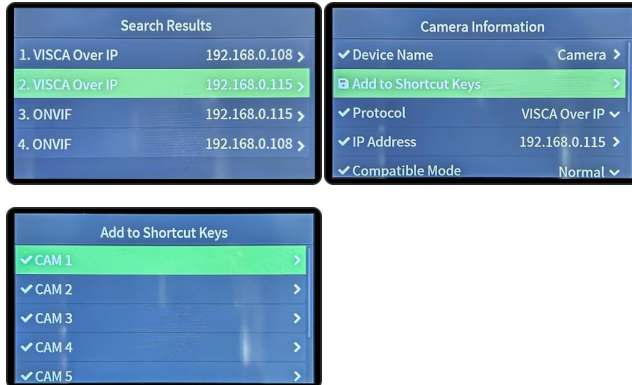
## Preview camera picture on PTZ controller's LCD screen

When you added the cameras to Chameye E300 PTZ controller with Visca over IP control protocol, do the following settings to preview camera's picture on PTZ controller LCD screen.

Step 1: Long press shortcut key , such as CAM 1 ,
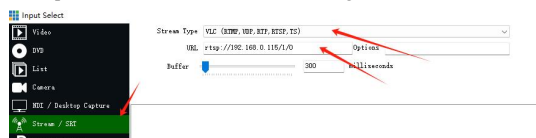
Step 2: go to bottom->Stream URL,

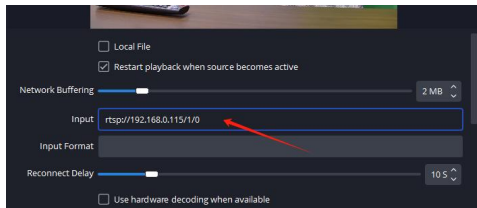Step 3: input: rtsp://192.168.0.115/1/0   , please change the IP address to your camera's IP.

Step 4: Press "PVW" button, you can preview camera's picture now.
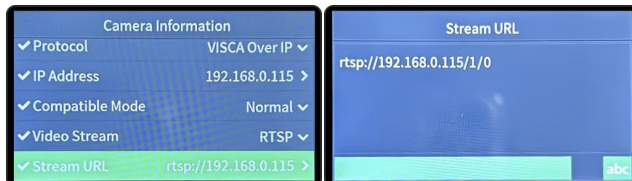
Stream to Vmix or OBS:

Tips: recommend to use VLC streaming in Vmix or OBS, it has lower latency.

Please note the camera's RTSP URL is : rtsp://192.168.0.115/1/0

Please don't forget to change the IP address to your camera's IP address.

IP Stream to Youtube or Facebook

Youtube , Facebook or other live broadcast platforms will supply Stream URL(server URL) and stream key for you.

Example for Youtube:

Stream URL: rtmp://a.rtmp.youtube.com/live2/

Stream Key: 8m8q-0yrp-w95f-spd0-ft55
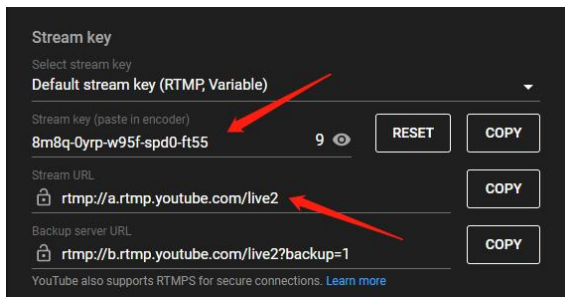
Now go to camera's webpage -> Setting-> Network-> Advanced Settings-> RTMP

State change to "On",

input the RTMP stream URL to URL:

rtmp://a.rtmp.youtube.com/live2/8m8q-0yrp-w95f-spd0-ft55

(Format: Stream URL/Stream Key)

Save and reboot the camera, camera will stream to Youtube.
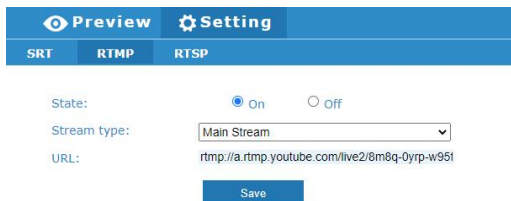
Example for Facebook:

Server URL: rtmps://live-api-s.facebook.com:443/rtmp/

Stream Key: FB-117626344422167-0-AbzhIyyXbQGNT47w

Now go to camera's webpage-> Setting-> Network-> Advanced Settings-> RTMP

 input the RTMP stream URL:

rtmps://live-api-s.facebook.com:443/rtmp/FB-117626344422167-0-AbzhIyyXbQGNT47w

(Format:　Stream URL/Stream Key)

Any questions please contact us at: Sandy@chameye.net

Video conference camera overview

Preface

Thank you very much for using our color video conference camera. Please read this manual in detail and use accordingly.

This manual introduce the function of video camera, opening and operation principle in detail.

This color video camera is high-quality and flexibility with a remote pan355° /tilt 120° operation and image flip, and a DSP dealing integration module input. Support VISCA and PELCO P/D protocol.

Allowing install on the ceiling /desk and an accurate remote control of RS232/422/485.

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

- 4K Ultra HD PTZ camera;
- Pan 355°, Tilt 120°;
- The features include advanced ISP processing algorithms to provide vivid images with a strong sense of depth, high resolution, and fantastic color rendition;
- Multi function IR remote controller can control PTZ, lens and other function conveniently;
- Using PC to control camera with Sony Visca or Pelco command;
- IR remote controller, RS422, RS232 and other control method;
- 9 preset positions by remote controller, 200 preset positions by PC or remote control unit, memory auto saved when power off;
- The maximum speed of horizontal rotation: 80° /s, tilt: 60° /s;
- Providing multifunctional accurate remote control.

Packing list

Please check up all devices inside while open package.

Video camera------------------------1
Remote controller------------------1
USB cable----------------------------1
HDMI cable--------------------------1
Power adapter----------------------1
Rs232 cable-------------------------1
Ceiling bracket---------------------1
User manual-------------------------1

Remote controller (1)

Video camera (1)

USB cable (1)

HDMI cable (1)

Power adapter (1)

Rs232 cable (1)

Ceiling bracket (1)

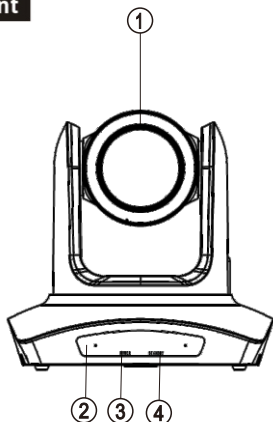**User manual (1)**

Parts and Introduction

1. Lens
2. Sensor for the remote control
3. Power lamp
4. Standby lamp

5. DC IN 12V input
6. RJ-45 network video output
7. Line in
8. HDMI video output
9. RS-232/422
10. USB3.0 video output
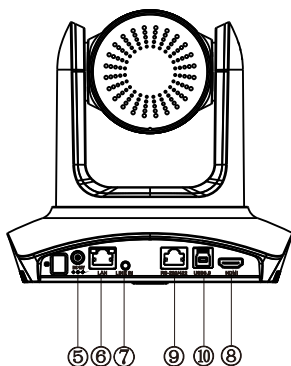
Bottom
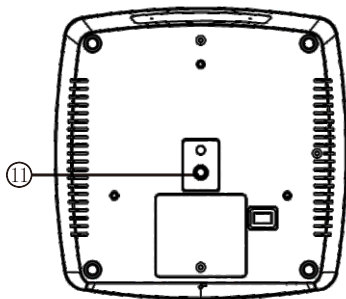
11. British screw holes

Remote Controller

❶ **IR transmit**
❷ **POWER**
❸ **PAN-TILT RESET**
❹ **CAMERA SELECT**
❺ **POSITION: (Number area; PRESET: press PRESET then press 1-9 for set up preset position)**
❻ **RESET: (Press RESET and then press1-9 for eliminate preset position)**
❼ **MENU**
❽ **S-OUT: SWITCH TO 720P50**
❾ **PAN-TILT ; HOME for return middle position**
❿ **CLOSE THE MENU**
⓫ **INFO: Screen information display**
⓬ **Reserved buttons have no function**
⓭ **FOCUS: (auto or manual)**
⓮ **ZOOM: (Telephoto or Wide Angle)**
⓯ **F1:Press and hold for 3 seconds to quickly switch the image normal and inversion**
⓰ **F2:Press and hold for 3 seconds to quickly restore the factory settings**
⓱ **Brightness adjustment: bright-/ bright+**
⓲ **BACK LIGHT**
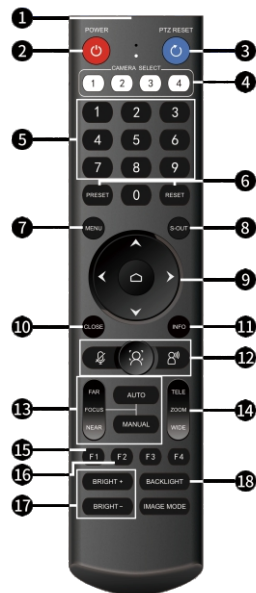
*Infrared address modifying operation (combination buttons):
Press the button ❿ over 5 seconds, then press F1/F2/F3/F4 to switch infrared address 1/2/3/4 respectively.

IR address is not reset after factory reset via menu or long press F2.

Install Diagram

Schematic Diagram	Function	
1 8 ⬛⬛⬛⬛⬛⬛⬛⬛ RS422/232 IN	1. RS422 TX+ IN	Orange/White
	2. RS422 TX- IN	Orange
	3. RS422 RX+ IN	Green/White
	4. RS232 TX IN	Blue
	5. IR OUT	Blue/White
	6. RS422 RX- IN	Green
	7. RS232 RX	Brown/White
	8. GND	Brown

Note: It is recommended to use a matching serial port adapter cable, and it is not recommended to connect directly with a network cable

Serial Port

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

PTZ

This option can set PTZ related functions, including focus mode, AF sensitivity, remote speed, pan direction, tilt direction.

Exposure

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

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

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, bright, color gain, sharpness, hue, gamma, flip,mirror, etc.

Audio

When this feature is activated, it can output audio signals inputted through LINE-IN.

Video

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

Network

This option allows you to view network information and enables you to turn the DHCP function on/off.

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.

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          ◀▶  Change
  [HOME] Enter      [CLOSE] Back
```

Serial Port Settings Sub Menu

Protocol: Can set auto/visca/pelco-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 magnif ication linkage.

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

2.PTZ Settings

```
 PTZ Settings>
---------------------------------
▶ Focus Mode:             <Auto>
  AF Sensitivity        <Normal>
  Zoom Speed:           <Normal>
  Remote Speed:              <4>
  Installation:         <Normal>
  Reload Preset 1:          <ON>
  PAN Reverse:             <OFF>
  TILT Reverse:            <OFF>
  Back>
---------------------------------
  ▲▼  Roll          ◀▶  Change
  [HOME] Enter      [CLOSE] Back
```

PTZ Settings Sub Menu

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.

Remote speed: PTZ speed 1-16(only take effect when using IR remote controller).

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

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

Pan Reverse: Can set pan direction normal/ reverse.

Tilt Reverse: Can set pan direction normal/ reverse.

The Menu

3.Exposure Settings

```
 Exposure Settings>
----------------------------------------
▶ AE Mode:                <Auto>
  Backlight:              <OFF>
  De-Flicker:             <OFF>
  Back>

----------------------------------------
  ▲▼  Roll          ◀▶  Change
  [HOME] Enter      [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          ◀▶  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, 0-255.
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              ◀▶  Change
  [HOME] Enter         [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.

6. Audio Settings

```
Audio Settings>
- - - - - - - - - - - - - - - - - - - - - - - - - -
▶ Audio:                         <OFF>
  Sound Mode:                    <Stereo>
  Back>

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

Audio Settings Sub menu

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

7. Video Settings

```
Video Settings>
- - - - - - - - - - - - - - - - - - - - - - - - - -
▶ Video Format:        <1920x1080p60>
  HDMI Mode:                     <DVI>
  Color Space:                   <RGB>
  Enter>
  Back>

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

Video Settings Sub menu

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.

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
  Restart takes effect
  Back>
----------------------------------------
  ▲▼  Roll            ◀▶  Change
  [HOME] Enter        [CLOSE] Back
```

Network Settings Submenu

Can check network information of camera.

Can set DHCP ON/OFF

Restart takes effect: After changing the DHCP status, it is necessary to confirm this item takes effect

9.System Settings

```
 System Settings>
----------------------------------------
▶ Language:              <English>
  Version:                  V1.2.93
  Preset Picture:             <ON>
  Remote Addr:                 <1>
  Reset Device>
  Back>
----------------------------------------
  ▲▼  Roll            ◀▶  Change
  [HOME] Enter        [CLOSE] Back
```

System Settings Sub menu

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

Remote Addr: 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 1og 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 0K 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, and the default 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 pan/tilt control area, which can realize the following functions: tilt to up, tilt to down, pan to left, pan to right, the pan/tilt returns to the initial center position, the lens zooms out, the lens zooms in, the near focus and the far focus are adjusted, the pan/tilt speed level is adjusted, the zoom speed level is adjusted, and the focus mode is adjusted; set the preset number , Number 1 starts counting, which is the No. 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.
VISCA IP Port:Show the VISCA IP port,the default is 52381

2) Advanced configuration.
Configurable SRT, RTMP, RTSP and other related parameters.

Video&Audio

1) Video
Set the video compression format, the compression format is H.264/H.265;
Stream: Support main stream 1920*1080;
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 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, up and down mirroring, backlight compensation.

White balance: White balance mode, red and blue gain effect 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	8.5Megapixels(16：9)
Resolution	HDMI：4KP30/25，1080P60/59.94/50，1080P30/29.97/25，720P60/50 USB：MJPG： 3840*2160，1920*1080， 1280*720， 800*600 ，640*480，640*360，320*240 YUY: 1920*1080,1280*720,800*600,640*480,640*360,320*240
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
Pan	355°(max.speed:80 °/s)
Tilt	-30°to +90 °(max.speed:60 °/s)
Video Output	HDMI 、USB3.0 、 IP
Power	12V DC(10.8 ～13.0V DC)
Operating Temperature	0° ~40°
Storage Temperature	-10° ~60°
Size	(L)181x(W)181x(H)176mm
Weight	1525g
Color	Silvery white
Protocol	SONY VISCA 、PELCO P/D、VISCA over IP、ONVIF
Control Mode	RS-232C 、 RS-422/485
Accessories	DC 12V power adapter, IR Remote, Operation manual, RS-232C cable, HDMI cable，USB3.0 cable，Bracket