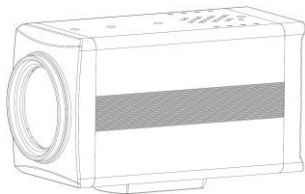


# **Integration HD Color Box Camera**



**The user manual**

**V1.8**

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## 1 Notes

- **Electric Safety**

Installation and operation must accord with electric safety standard.

- **Use caution to transport**

Avoid stress, vibration or soakage in transport, storage and installation.

- **Polarity of power supply**

The power supply of this product is +12V, the max electrical current is 2A .Polarity of the power supply plug drawing shows as below.



- **Careful of installation**

Never power on before installation is completed.

- **Do not dismantle the camera**

We are not responsible for any unauthorized modification or dismantling.



**CAUTION!**

Specific frequencies of electromagnetic

field may affect the image of the camera!

## 2 Main Features

- **20x Optical + 16x Digital Zoom**

Use TAMRON high-quality super telephoto lens, supporting 20x optical zoom and 16x digital zoom.

- **H.265 Support**

First H.265 encoding support conference video camera. It enables full HD 1080p60 video stream with ultra-low bandwidth.

- **1080P Full HD**

Support Panasonic's 1/2.7 inch, 2.07 million effective pixels with high quality HD CMOS sensor. The camera can reach a maximum of 1920 x 1080 high resolution and achieve high-quality image.

- **Double Interface**

Support HD-SDI interface, effective transmission distance up to 150 meters (under 1080p30). SDI, Network can output at the same time.

- **Ultra-high Frame Rate**

The output frame rate can be up to 60fps

- **AAC Audio Encoding**

Support AAC audio encoding. Better sound quality and smaller bandwidth can be achieved.

- **Low-light**

High SNR of CMOS sensor combined with 2D and 3D noise reduction algorithm, effectively reduce the noise. Even under low illumination conditions, clear images can still be acquired.

- **PoE (optional)**

Support PoE (802.3af), effectively reduce the cost of engineering and routing.

- **ICR Infrared Filter**

ICR filter with auto switch, keep watch over day and night.

- **SDK**

Support SDK, easy to implement the custom requirement.

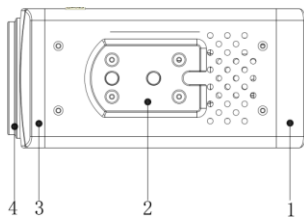
### 3 Standard Accessories

When unpacked, check if all supplied accessories are included:

Integration HD Color Box Camera	x1
The user manual	x1
Certificate/warranty card	x1

### 4 Camera Description

- **Camera appearance**



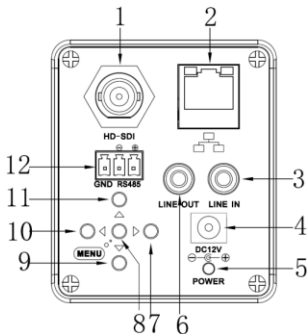
1. The back cover of the machine
2. Installation positioning tra
3. The front cover of the machine
4. Lens cap



#### Operating tips

Both sides threaded hole is consistent with the positioning hole size, installation can be used instead of each other.

- The back of the interface specifications



1. HD-SDI interface
2. RJ45 interface
3. Audio Line in interface
4. DC 12V power interface
5. Power light
6. Audio Line out interface
7. Right key
8. MENU key
9. Down key
10. Left key
11. Up key
12. RS485 interface
- 13.



### Operating tips

Press "MENU" button and then to electricity and keep holding down the "MENU" button 8 seconds, the camera will restore factory Settings.

## 5 OSD Menu Operation

- Key Description

The camera USES five buttons, respectively, to determine key [MENU], select key **【▲▼】** up and down, left and right sides choose key **【◀▶】**; Under normal image press "MENU" key, the screen displays the main menu, press **【▲▼】**, from top to bottom cycle options menu item and press **【▶◀】** select menu options, use a scroll arrow or highlight the selected item, press menu button "MENU" to highlight the menu item; Each menu page has a "Return" option, to Return to the superior menu or exit the menu.

- MENU(Main Menu)

Directly press "MENU" button to enter the main menu.

## MENU

- ▶ Exposure
- Color
- Image
- Focus
- Noise Reduction
- Setting
- Information
- Restore Default
- Exit



### Operating tips

Use the select key up and down **【▲▼】**

Choose a menu item, press **【MENU】** to enter the corresponding sub-menu.

choose[Exit]press **【MENU】** to exit menu.

## ● EXPOSURE

### EXPOSURE

- ▶ Mode Full Full Auto
- ExpCompMod Off
- GainLimit 3
- Backlight Off
- DRC Strength 3
- Anti Flicker 50Hz
- Return



### Operating tips

Mode: Exposure mode, Options: Full Auto, SAE, AAE, Bright, Manual, WDR.

Shutter: Shutter value, only when the Mode for the Shutter Priority Mode and Manual Mode effective, Options: 1/10000s, 1/6000s, 1/4000s, 1/3000s, 1/2000s, 1/1500s, 1/1000s, 1/725s, 1/500s, 1/350s, 1/250s, 1/200s, 1/125s, 1/100s, 1/90s, 1/60s, 1/30s.

Iris: Aperture value, only when the Mode for the Iris Priority and Manual Mode effective,

Options: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

GainLimit: Maximum gain, Options: 0 ~ 15.

Bright: Bright intensity control, only when the effective Mode for Bright Mode, Options: 0 ~ 17.

ExpCompMode: Exposure compensation mode. Options: On, Off.

ExpComp: Exposure compensation value., only when ExpCompMode item to On effective, Options: -7 ~ 7.

Backlight:Set the backlight compensation, Options: On, Off.

DRC: DRC strength. Options : 0 ~ 8.

Anti Flicker: Flashing function, Options: 50Hz, 60Hz, Off.

Strength: DRC strength values, Options: 0 ~ 6.

Return: get back

## ● COLOR

COLOR	
▶ WB Mode	Auto
AWB Sens	Low
RG Tuning	1
BG Tuning	0
Saturation	100%
Hue	7
Return	



### Operating tips

WB Mode: White balance mode, Options: Auto, 3000K/Indoor, 4000K, 5000K/Outdoor, 6500K-1, 6500K-2, 6500K-3,One Push, Manual.

RG Tuning: Adjust the camera white balance mode of red tuning, are effective only when the white balance mode to Auto, Options: -10 ~ 10.

BG Tuning: Adjust the camera white balance mode of bluetuning, are effective only when

the white balance mode to Auto, Options: -10

~ 10.

R Gain: Adjust the camera white balance mode of red gain, are effective only when the white balance mode to Manual, Options: 0 ~ 255.

B Gain: Adjust the camera white balance mode of blue gain, are effective only when the white balance mode to Manual, Options: 0 ~ 255.

Saturation: Color saturation adjustment, Options: 60% ~ 200%.

Hue: Chroma adjustment, Options: 0 ~ 14.

IR Filter: Choose IR Filter, Options: 1~ 3.

AWB sens: The white balance sensitivity, Options: Low, Middle, High.

Return: get back.

## ● IMAGE

IMAGE	
▶ Luminance	7
Contrast	9
Sharpness	2
Flip-H	Off
Flip-V	Off
Gamma	Default
Style	Clarity
Return	



### Operating tips

Luminance: Brightness adjustment, Options: 0~14.

Contrast: Contrast adjustment, Options: 0~14.

Sharpness: Sharpness adjustment, Options: Auto, 0~15.

Flip-H: Image flipped horizontally. Options: On, Off.

Flip-V: Image Flip Vertical. Options: On, Off.



Gamma: Options: default, 0.45, 0.5, 0.56,

0.63.

Style: Options: Norm, Clarity, Clarity (LED),

Bright, Soft, 5S.

Return: get back.

## ● FOCUS

FOCUS	
▶ D-Zoom Limit	x1
AF Sensitivity	High
Auto Focus	On
Return	



### Operating tips

Z-Doom Limit: Digital zoom camera settings,

Options: x1.

AF Sensitivity: Focus camera sensitivity,

Options: Low, Middle, High.

Auto Focus: Autofocus camera settings,

Options: On, Off.

Return: get back.

## ● NOISE REDUCTION

NOISE REDUCTION	
▶ 2D NR	3
3D NR	3
Return	



### Operating tips

2D NR: 2D noise reduction, Options: 1 ~ 5, Close, Auto.

3D NR: 3D noise reduction, Options: 1 ~ 8, Close.

Return: get back.

## ● SETTING

SETTING	
▶ Language	English
Protocol	VISCA
VISCA Address	1
Baudrate	9600
Video Format	1080P30
Lens	Type 2
Return	



### Operating tips

Language: Language Settings, Options: English, Simplified Chinese Characters, Traditional Chinese Characters.

Protocol: Communication protocol Settings, Options: VISCA, PELCO-D, PELCO-P.

VISCA Address: Address of the Visca Settings, Options: 0 ~ 7.

P-D Address: P-D address settings, valid in PELCO-D mode, Options: 0 ~ 254.

P-P Address: P-P address settings, valid in PELCO-P mode, Options: 0 ~ 31.

Baudrate: Camera baud rate settings, Options: 38400, 19200, 9600, 4800, 2400.

Video Format: Camera video format settings, Options: 1080P60, 1080P50, 1080I60, 1080I50, 1080P30, 1080P25, 720P60, 720P50.

Lens: Set lens type, Options: Type 1, Type 2.

Return: get back

### ● INFORMATION

#### INFORMATION

Version	7.2.23
Data	2017-06-21
AF Version	1.1.25
IP	192.168.100.99
Gateway	192.168.100.1
Netmask	255.255.255.0
Return	

### ● RESTOR DEFAULT

#### RESTORE DEFAULT

▶ Yes

No

Return



### Operating tips

Yes: verify, press **【MENU】** to restore factory Settings.

No: cancel, press **【MENU】** to back to menu.

Return: get back

## 6 Serial port command description

### ● Serial port control

Camera on the electric initialization complete, available command(VISCA) with RS485 and RS232 serial port for communication. The camera provides the following commands to control menu:

function	command packet	Notes
UP	8x 01 06 01 08 08 03 01 FF	Equiv alent to the back four directi on keys.
DOWN	8x 01 06 01 08 08 03 02 FF	
LEFT	8x 01 06 01 08 08 01 03 FF	
RIGHT	8x 01 06 01 08 08 02 03 FF	
OK	8x 01 04 0B 02 FF or 8x 01 04 0B 03	Equiv alent to the back

	FF	【 ME NU 】 key.
--	----	----------------------

x:Camera address number.

## 7 Equipment Setup and internet connection

### 1 Operating Environment

Operating System : Windows2000/2003/XP/  
vista/7/8/10

Network Protocol: TCP/IP

Client PC: P4/128MRAM/40GHD/ support  
scaled graphics card, support

DirectX8.0 or more advanced version.

### 2 Equipment Installation

1) Connect internet camera to a wireless  
network (Wi-Fi) or to your PC directly via  
internet cable.

2) Turn on DC12V power.

3) When the orange light on internet port lit  
up, green light flashing, the physical  
connection is finished.

### 3 Internet Connection

There are 2 ways of connecting internet camera to computer.



Connect by internet cable



Connect by router /interchanger

### 4 IPcamera visited/ controlled by LAN

#### 4.1 Setup IP address

IP camera's default IP address"192.168.100.99", For unknown camera IP, follow the instructions to reveal:

Method 1: press \* and # and 4 on remote control in order, the camera IP address will show on screen.

Method 2: connect camera to PC with Ethernet cable, use "upgrade\_En.exe" to search for IP address.

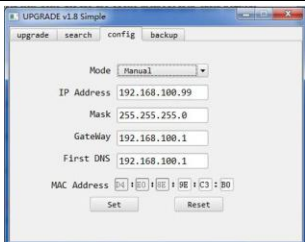


To change IP address, follow the steps:

Method 1: On web control page, click "Network" > change IP > click "Apply" > restart camera

The screenshot shows a web control interface with a blue background. It has several sections: "Lan Settings" with fields for IP Configuration Type (Fixed IP Address), IP Address (192.168.100.179), Subnet Mask (255.255.255.0), Gateway (192.168.100.1), and DNS Address (192.168.100.1). Below these are MAC Address fields (D4, ED, 92, DA, 00) and "Apply" and "Cancel" buttons. "Port Settings" includes HTTP Port number (80), RTSP Port (554), and PTZ Port (5678). "Control Protocol Settings" includes Visca Address (1), Pelco-D Address (0), and Pelco-P Address (0). "RTMP Settings" includes First stream and Second stream, each with "On" and "Off" radio buttons and "Video" and "Audio" checkboxes. "RTSP Settings" includes RTSP Auth (On/Off). "ONVIF Settings" includes ONVIF and ONVIF Auth (On/Off). "Multicast Settings" includes Multicast (On/Off), Address (224.1.2.3), and Port (5688). "Apply" and "Cancel" buttons are at the bottom.

Method 2: Open "upgrade\_En.exe", change IP and click "Set". After modifying, restart IP Camera..



NOTE!

IP camera's default IP address"192.168.100.99", user "admin", password "admin". After modified, IP Camera be restart.

#### 4.2 Visit/Access IP Camera

Input <http://192.168.100.99> in the address bar ( better with IE web browser, others will cause little latency), When I login window pop up, input login name: admin, password: admin, shown as below:



After login, the page will be as below:



NOTE!

If the camera is used for the first time with Internet connection, user must install a video player (VLC). Please go to VLC website <http://www.videolan.org/vlc/download> and install as instructed. After installation, login again, the home page will show.

#### 5 IP Camera accessed/controlled by WAN(Internet)

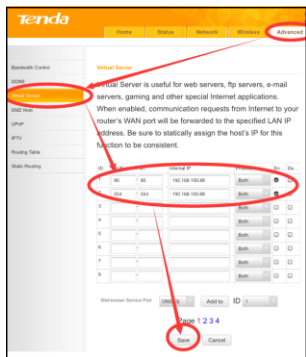
##### 5.1 Setup IPC accessed/controlled by dynamic DNS

##### 2 dynamic DNS available:

Dyndns.org,  
3322.org

##### Router Port Mapping:

Take Tenda router for example, enter Router Home Page (interface page)> select "Advanced">"Virtual Server"> add a new port number in "Ext Port"> add a new port number in "Int port"> put camera IP address as "Internal IP"> "Save".



## 5.2 Dynamic DNS visits camera

Set domain name to camera, set the parameter, and then dynamic DNS can access camera. Access link: [http://hostname: port number](http://hostname:port number).

For example, if set host computer name: youdomain.f3322.org, camera port number:

554, then the access link should be:

<http://youdomain.3322.org:554>.



NOTE!

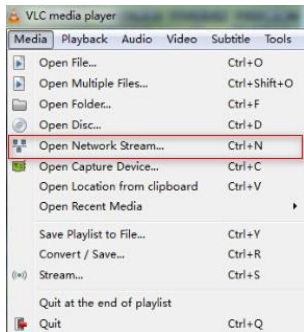
If the default camera port is 80, it's unnecessary to enter port number. By using only the host name, user can access camera directly.

## 5.3 VLC stream media player monitoring

### Visit VLC media server procedure

Open VLC media player, click "Media">

"Open Network Stream", or use "Ctrl+N".



Input URL address:

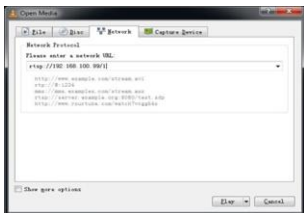
rtsp://ip:port number/1 (First stream);

rtsp://ip: port number/2 (Second stream).



NOTE!

Default port number: 554.



## 6 IP Camera parameter setup

### 6.1 Homepage introduction

Menu

All pages include 2 menu bars:

Real-time monitoring: display video.

Parameter setup: function buttons.

#### 1) Video viewing window

Video viewing window must accommodate to the video resolution: the higher the resolution is, the bigger the playing area should be. Double clicking viewing window

will show full-screen; double clicking again will return to initialized size.

Status bar in viewing window shows as below:



#### 1) Video play back pause button: control

real-time video pause, stop at the last frame.

Click again to resume video.

2) Audio control buttons: can set silent mode.

3) Full screen switch button.

#### 2) Language selection

Language English ▾

**Simplified Chinese Characters/Traditional**

**Chinese Characters/English/Russian**

## 6.2 Click "Video" to finish video setup:

**Video Settings**

Video Format: OSD  
Encode Level: mainprofile

**First stream**

Encode Protocol: H264  
Resolution: 1920x1080  
Bit Rate: 4096 (32~20480) kbps  
Frame Rate: 30 fps  
I Key Frame Interval: 30 (2~150)  
Bit Rate Control:  CBR  VBR  
Fluctuate Level: 1

**Second stream**

Encode Protocol: H264  
Resolution: 320x240  
Bit Rate: 1024 (32~6144) kbps  
Frame Rate: 30 fps  
I Key Frame Interval: 30 (2~150)  
Bit Rate Control:  CBR  VBR  
Fluctuate Level: 1

Apply Cancel

### 1) Video format

Support 50HZ and 60HZ and OSD three formats.

### 2) Encode Protocol

Support H.264 and H.265 and MJPEG three formats.

### 3) Encode Level

Support baseline, mainprofile, highprofile

three formats.

### 4) Resolution

First bit flow support 1920x1080, 1280x720, 1024x576, 960x540, 640x480, 640x360, Second bit flow support 1280x720, 1024x576 (50Hz), 720x480 (60Hz), 720x576, 720x408, 640x360, 480x270, 320x240, 320x180, the bigger resolution is, the clearer the image will be, more network bandwidth will be taken.

### 5) Bit Rate

User can assign bit flow/stream, normally speaking, the bigger bit flow is, the clearer the image will be. The bit allocation must combine with network bandwidth, when the network bandwidth is too narrow and the allocated bit flow is too big, will cause video signal flow not to be transmitted normally, the video effect will be worse.

### 6) Frame rate

User can specify the size of the frame rate, generally, the frame rate greater, the image



more smooth; Frame rate is smaller, the more sense of beating.

### 7) I key frame interval:

Set interval between 2 I frame, the bigger interval is, the response will be lower from viewing window.

### 8) Bit Rate control

Code stream control way:

Constant bit rate: video coder will be coding according to preset speed

Variable bit rate: video coder will adjust the speed based on preset speed to gain the best image quality.

### 9) Fluctuate level

Restrain the fluctuation magnitude of variable rate, grade 1 ~ 6



NOTE!

To adjust the parameters, click "apply" to save, click "cancel" to discard the change of the parameters.

## 6.3 Click "Image" to finish image setup:



### 1) Brightness

Brightness 0~14, slide to control. The box on the right shows the corresponding numerical. Default: 7.

### 2) Saturation

Saturation 0~14, slide to control. The box on the right shows the corresponding numerical. Default: 4.

### 3) Contrast

Contrast 0~14, slide to control. The box on the right shows the corresponding numerical. Default: 9.

### 4) Sharpness

Sharpness 0~15, slide to control. The box on the right shows the corresponding numerical. Default: 2.

#### 5) Hue

Hue 0~14, slide to control. The box on the right shows the corresponding numerical. Default: 7.

#### 6) Flip & Mirror

Click "Flip" to flip image upside down.

Click "mirror" to show the mirror image.



NOTE!

To adjust the parameters, click "apply" to save, click "cancel" to discard the change of the parameters, click "default" to restore the default values.

#### 6.4 Click "Audio" to finish audio setup:

Audio Switch:	On	▼
Audio Type:	AAC	▼
Sample Rate:	48K	▼
Bit Rate:	96K	▼
Input Type:	Line in	▼
Input Vol L :	8	(-97~30) db
Input Vol R :	8	(-97~30) db
ADTS Options:	Off	▼

Apply Cancel

##### 1) Audio Switch

Audio Switch: On, Off.

##### 2) Audio Type

Audio type: AAC.

##### 3) Sample rate

Sample rate: 44.1 K and 48 K.

##### 4) Bit rate

Bit rate: 96k, 128k, 256k.

##### 5) Input Type

Line-in only.

##### 6) Input Vol L

Volume of the left channel.

##### 7) Input Vol R

Volume of the right channel

## 8) ADTS Options

Options: On, Off



NOTE!

Click "apply" to save parameter settings.

Click "cancel" to discard changes.

## 6.5 System Setting, please click "System"

The screenshot shows the 'System Settings' page with the following fields and controls:

- Initialize**
- Work Mode: RTSP (dropdown)
- Reboot: Reboot (button)
- User**
- UserName: admin (text input)
- Password: \*\*\*\*\* (password input)
- Guest: guest (text input)
- Password: \*\*\*\*\* (password input)
- Buttons: Apply, Cancel

### 1) WorkMode

Work Mode RTSP

### 2) Reboot

Click the "Reboot" button, system restart.

### 3) User and password

The user can modify the password (letters and Numbers only)



NOTE!

Modify password and click the "apply"

button to the login page, press "cancel" button to cancel password change.

## 6.6 Network Setting, please click "Network"

The screenshot shows the 'Network Settings' page with the following sections and fields:

- Lan Settings**
- IP Configuration Type: Fixed IP Address (dropdown)
- IP Address: 192.168.100.179
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.100.1
- DNS Address: 192.168.100.1
- MAC Address: D4 ED BE 93 DA 00
- Buttons: Apply, Cancel
- Port Settings**
- HTTP Port number: 80 (80)
- RTSP Port: 554 (554)
- PTZ Port: 5078 (5678)
- Control Protocol Settings**
- Visca Address: 1 (1~7)
- Pelco-D Address: 0 (0~255)
- Pelco-P Address: 0 (0~31)
- RTMP Settings**
- First stream: On (checked) • Off (unchecked) Video (checked) Audio (unchecked)
- MRL: http://192.168.100.138/live/stream0
- Second stream: On (checked) • Off (unchecked) Video (checked) Audio (unchecked)
- MRL: http://192.168.100.138/live/stream1
- RTSP Settings**
- RTSP Auth: On (checked) • Off (unchecked)
- ONVIF Settings**
- ONVIF: On (checked) • Off (unchecked)
- ONVIF Auth: On (checked) • Off (unchecked)
- Multicast settings**
- Multicast: On (checked) • Off (unchecked)
- Address: 224.1.2.3
- Port: 5008
- Buttons: Apply, Cancel

### 1) Lan Settings

Default the IP address is 192.168.100.99,

The MAC address can be modified.



NOTE!

---

To adjust the Lan parameters, click "apply" to save, click "cancel" to discard the change of the parameters.

## 2) Port Settings

### A. HTTP Port

IP address identifies the network device, the device can run multiple web applications, each network program using network port to transmit data, so data transmission to be carried out between the port and port. Port setting is to set up WEB SERVER program using which port to transmit. When port mapping, need to be consistent with the port number(default port: 80)

### B. RTSP Port

Network camera support RTSP protocol, use the VLC tools broadcast.

### C. PTZ Port

Support PTZ protocol, default port: 5678.

## 3) Control Protocol Setting

Setting camera control communication protocol, include Visca address, Pelco-D address, Pelco-P address.

## 4) RTMP Setting

Setting the camera stream, can set up two stream, in the two stream selection control code stream of "On", "Off", "Video", "Audio", etc.

## 5) RTSP Setting

Setting network camera rtsp protocol of "On", "Off".

## 6) ONVIF Setting

Setting the ONVIF protocol and ONVIF authorization "On", "Off".

## 7) Multicast Setting

Setting multicast "On", "Off", and multicast address(default address 224.1.2.3) and port (default 6688)



**NOTE!**

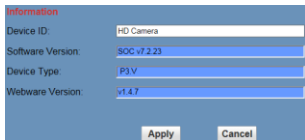
Modify network parameters then press "Apply" button to modify network parameters,

---

press "Cancel" button to cancel network parameters.

## 7 Device Information, please click "information"

Show the current device information, as shown below.



## 8 Download the Network upgrade program

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

## 8 Maintenance and troubleshooting

### ● Maintenance of the camera

If the camera is not used for a long time, after use, please disconnect the power switch, at the same time the ac power adapter and ac socket to disconnect.

Clear the dust on the camera housing, please use soft cloth or cotton paper.

Clean the camera lens, please use dry soft cloth to wipe, such as dirt serious when, please use neutral detergent wipe gently. Don't use strong or with corrosive cleaner, so as to avoid the lens scratches, influence the image effect;

### ● Beyond the camera work intensity of illumination

Camera may be more than camera work intensity of illumination, the image cannot achieve the best effect.

### ● The camera should avoid using at the following specific situation

Camera should avoid shooting especially bright objects, such as sunshine, lamplight, etc.

The camera don't work in lighting conditions unstable environment, otherwise the image will happen.

Don't can launch a large power of the facilities around the use of radio waves, such as television or radio transmitters, etc.

## 9 Fault phenomenon and processing

### ● Images

Display shows no image

1. Check whether the camera power supply is connected and the voltage is normal, whether the power light shine.

2. Check whether video platform, TV cable connection is normal

3. Check for manual lens aperture and open the aperture.

Sometimes there is no image

1. Check whether video platform, TV cable connection is normal.

2. check whether the camera installation safety, if there is a strong shock.

Image blurring

1. Check whether the lens focusing accurately.

2. Check whether the lens surface is clean.

### ● Control

Serial port can't control

1. The camera control parameters is set up correctly.

2. Check whether control line connection is good.

## 10 Standard Specification

Name	Integration HD Color Box Camera
Camera	
Video System	1080p/60, 1080p/50, 1080i/60, 1080i/50, 1080p/30, 1080p/25, 720p/60, 720p/50
Sensor	1/2.7", CMOS, Effective Pixel: 2.07M
Scanning Mode	Progressive
Lens	20x, f4.42mm ~ 88.5mm, F1.8 ~ F2.8
Digital Zoom	16x (optional)
Horizontal Angle of View	60.7° ~ 3.36°

Vertical Angle of View	34.1 ° ~ 1.89 °
Minimal Illumination	0.05 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
White Balance	Auto, 3000K/Indoor, 4000K, 5000K/Outdoor, 6500K_1, 6500K_2, 6500K_3, One Push, Manual
Day-night Mode	IR cut filter with auto switch
Digital Noise Reduction	2D,3D digital noise reduction
Backlight Compensation	Support
PoE	Support(optional)
Ceiling Installation	Support
<b>IPC Features</b>	
Video	H.264/H.265/MJPEG

Compression	
Video Stream	First Stream, Second Stream
First Stream Resolution	1920x1080,1280x720,1024x576,960x540,640x480,640x360
Second Stream Resolution	1280x720,1024x576(50 Hz),720x480(60Hz),720x576,720x408,640x360,480x270,320x240,320x180
First Video Bit Rate	32Kbps ~ 20480Kbps
Second Video Bit Rate	32Kbps ~ 6144Kbps
Bit Rate Type	Variable Rate, Fixed Rate
Frame Rate	50Hz: 1fps ~ 25fps, 60Hz: 1fps ~ 30fps
Audio Compression	AAC

Audio Bit Rate	96Kbps, 128Kbps, 256Kbps
Support protocols	TCP/IP, HTTP, RTSP, RTMP, ONVIF, DHCP, Multicast, etc.
<b>Input/Output Interface</b>	
HD Output	1xHD-SDI: BNC type, 800mVp-p, 75Ω, Along to SMPTE 424M standard
Network Interface	1xRJ45:10M/100M adaptive Ethernet ports
Audio interface	1x-ch 3.5mm audio interface, Line In 1x-ch 3.5mm audio interface, Line Out
Communication interface	1xRS485:Max Distance: 1200m, Protocol: VISCA/Pelco-D/Pelco-P
Power Connector	JEITA type (DC IN 12V)

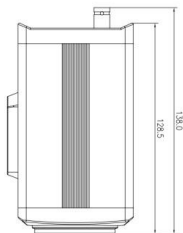
Reset Button	Support
<b>Generic Specification</b>	
Input Voltage	DC 12V / PoE (802.3af) (optional)
Current Consumption	0.5A (Max)
Operating Temperature	-10 °C ~ 40 °C (14 F ~ 104 F)
Storage Temperature	-40 °C ~ 60 °C (-40 F ~ 140 F)
MTBF	>30000h
Power Consumption	6W (Max)
Size	138.5mm x 76.8mm x 60.3mm
Net Weight	650Kg (1.4lb)

\*Only network coding support.

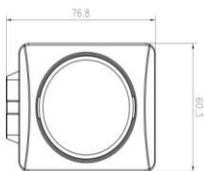


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## 11 Dimension



**Top view**



**Front view**

## 12 Copyright Notice

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