



# **SDC024-B12 (N)**

## **4K PTZ Video Camera**

**User Manual V1.0**



# Informazioni base



## Connessione

Indirizzamento IP

IP	192.168.5.163
Subnet mask	255.255.255.0
Gateway	192.168.5.1

## Autenticazione

Interfaccia web

Utente	admin
Password	admin
Livello	Amministratore

Software CameraCMS

Utente	admin
Password	
Livello	Amministratore

Onvif, RTSP

Utente	admin
Password	123456
Livello	Amministratore

Per maggiori informazioni consultare l'appendice **Note tecniche** al fondo del manuale.

## Streaming

URL con VLC

RTSP	Main Stream	rtsp://192.168.5.163/ch1
	Sub Stream	rtsp://192.168.5.163/ch2

## Controllo

Web	HTTP porta 80
CameraCMS	TCP porta 5000
Visca	RS-232 o RS-485, 9600, 8 N 1
Pelco-D	RS-232 o RS-485, 9600, 8 N 1
Pelco-P	RS-232 o RS-485, 9600, 8 N 1
Visca over IP	TCP o UDP porta 1259, ID Visca: 1
ONVIF	TCP porta 8080, versione 2.21
NDI	

## Accessori

Staffa a muro	SE SDC015-W
Staffa a parete	SE SDC015-S

## Collegamenti

[SE SDC024-B12](#)





[SE SDC024-B12N](#)

Per maggiori informazioni consultare l'appendice **Note tecniche** al fondo del manuale.

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# SYMBOL CONVENTIONS

Symbol	Description
 <b>Explanation</b>	Provides additional information to emphasize or supplement important points of the main text.
 <b>Note</b>	Caution indicates that the user is reminded of some important operations or to prevent potential injury or property loss.
 <b>Warning</b>	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 <b>Danger</b>	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.

# SAFETY NOTES - IMPORTANT

- During the installation of this camera, please read this manual carefully and operate strictly. In accordance with the installation instructions. Keep this manual for future reference.
- Before powering on the camera, please check the power carefully. Make sure that you are using the right power source.
- Place the power cable in a place that is not easily accessible. Do not stack any objects on the power cable, protect the cable, especially the connection must be fully and securely contacted.
- Do not run the camera beyond the specified temperature and humidity. The working temperature range is between 0°C ~ +40°C. The working humidity range is between 10%RH~90%RH.
- For safety, foreign matter is prevented from entering the device, do not splash the corrosive liquid onto the camera.
- When transporting, avoid violent shake or strong force to the camera.
- Do not disassemble the camera without authorization. If the camera is damaged, please contact professional maintenance personnel for repair.
- Avoid pointing the camera at objects with strong light, such as the sun etc.
- When cleaning the camera, please use soft cloth. If the camera is very dirty, wipe it off gently with a soft cloth moistened with a weak solution of water or a neutral kitchen detergent. Wring out all liquid from the cloth before wiping the camera, then wipe away all remaining dirt with a soft, dry cloth. Use lens cleaning paper to clean the lens.

# CONTENTS

- 1. ABOUT THE PRODUCT -----1
  - 1.1. QUICK GUIDE ----- 1
  - 1.2. RTSP ----- 1
- 2. FEATURES -----2
  - 2.1. CHARACTERISTICS & FUNCTIONS-----2
  - 2.2. APPLICATION SCENARIOS -----2
- 3. PRODUCT COMPONENTS -----3
  - 3.1. LIST OF PARTS & ACCESSORIES -----3
  - 3.2. MAIN PARTS & INTERFACES-----4
  - 3.3. REMOTE CONTROL -----5
- 4. INSTALLATION -----7
  - 4.1. SIZE AND DIMENSION-----7
  - 4.2. INSTALLATION -----8
- 5. WEBUI INSTRUCTION -----10
- 6. DEVICE MANGEMENT-----16
  - 6.1. CAMERACMS INSTRUCTION-----16
  - 6.2. REMOTE CONFIGURATION -----18
- 7. MENU SETTINGS-----27
  - 7.1. MENU CONFIGURATION -----27
  - 7.2. MENU EXPLANATION-----30
- 8. TECHNICAL SPECIFICATIONS -----33
- 9. TROUBLESHOOTING-----35

# 1. ABOUT THE PRODUCT

## 1.1 Quick Guide

The camera can be accessed and controlled via the following ways:

- WebUI: Camera control, network setting.
- CameraCMS: camera search and control, network setting.
- VLC: watch the camera two streams.
- ONVIF: version 2.1 supported                      Name: admin  
Initial password: leave empty
- Network pass-through: recommended connection mode with recording or streaming device.

## 1.2 RTSP

1) Make sure PC and the camera are in the same LAN.

2) Two channel streams, URL: RTSP://IP/chx, x=1, 2. 1 is the main stream, 2 is the sub stream.

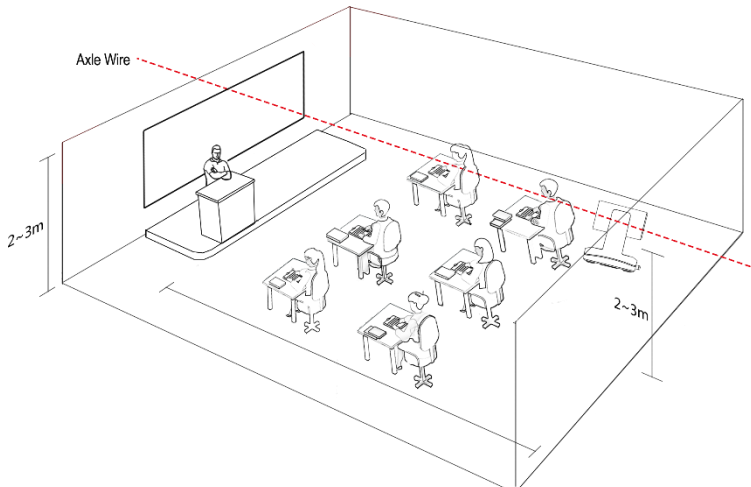
3) Default RTSP port is 554.

## 2. FEATURES

### 2.1 Characteristics & Functions

- 1/2.8"4K CMOS, 8.46MP.
- 4K ultra-HD lens, 12x optical zoom, up to 72.5° FOV.
- Built in the industry-leading AI image algorithm for human body detection and locking tracking, which can realize a wide range of automatic detection and continuous tracking.
- H.264/H.265 video compression, up to 4K30 video output, and support POE.
- HDMI 2.0 video output, up to 4K30 video output.
- USB 3.0 with UVC and UAC protocols, up to support 4K30 video output.
- 3G-SDI video output.
- Support RS232 IN/ RS232 OUT control interface and VISCA protocol.
- 1 channel LINE IN.
- Fast, accurate and smooth focusing.
- High precision, smooth rotation, quiet PTZ.

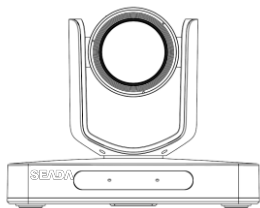
### 2.2 Application Scenarios



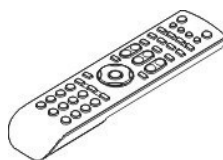
## 3. PRODUCT COMPONENTS

### 3.1 List Of Parts & Accessories

When you open the box, check all accessories according to the packing list.



**Camera x 1**



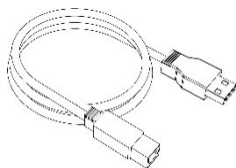
**Remote Controller x 1**



**Power Adapter x 1**

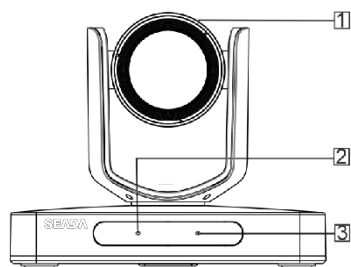


**RS-232 Cable x 1**

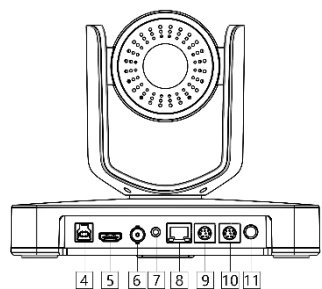


**USB x 1**

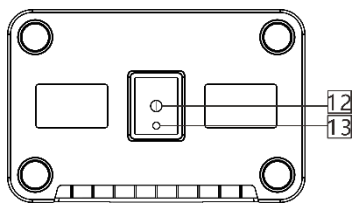
### 3.2 Main Parts & Interfaces



Front View



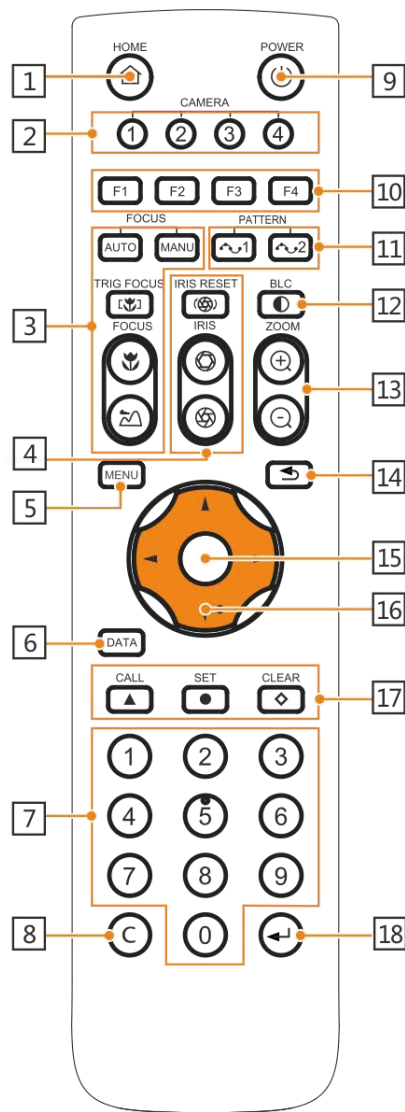
Rear View



















Bottom View

NO.	Interface	NO.	Interface
1	Camera Module	9	RS232-IN
2	Power Indicator	10	RS232-OUT/RS485
3	Communication Indicator	11	Power (DC 12V)
4	USB 3.0	12	Mounting Hole
5	HDMI	13	Locating Hole
6	3G SDI		
7	LINE IN		
8	Network		

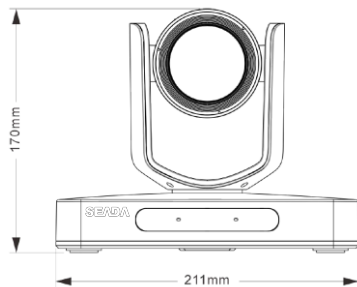
### 3.3 Remote Control



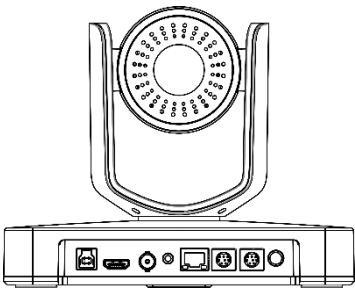
No.	Name	Function
1	Home	Press "HOME" button, camera moves to initial position.
2	Camera Selection Button	Used to switch among 4 cameras, press 1-4 number buttons to control cameras with 1-4 addresses respectively. For example, press button 1 to control the camera with address 1.
3	Focus	Press "AUTO" button to switch to Auto Focus, press "MANU" button to switch to Manual Focus mode.  button to Focus Near,  button to Focus Far,  button to Auto Focus once every time it is pressed, then switch back to Manual Focus mode.
4	Iris	Press  button to reset iris (image brightness) value to default.  button to Iris Open (brighter image), and  button to Iris Close (darker image).
5	Menu	Press "MENU" button to enter / exit menu.
6	Data	Switch preset prompt, turned on by default.
7	Number Keys	Long press remote control numeric key (0-9) to set a preset, short press to call a preset.
8	Cancel	Reserved.
9	Power	After the camera has been connected to power source, press this button to turn on / off the camera.
10	Reserved Buttons	Reserved.
11	Pattern	Reserved.
12	BLC	Used to open / close back light compensation.
13	Zoom	Adjust zooming times.  button to zoom in,  button to zoom
14	Back	Press  button to go back to previous menu.
15	OK	In None-menu status: press this button to switch among pan / tilt control speeds. In Menu status: get into relative menu option after it has been selected.
16	Direction/Menu Operation	In None-menu status, press these four buttons to pan left/right and tilt up/down. In Menu status:  or  button to select among menu options,  or  to change option / value.
17	Preset Setting	 button,  button, Reserved,  button to clear a preset. Press this button and then press the number key(s) to clear a
18	Enter	Reserved

# 4. INSTALLATION

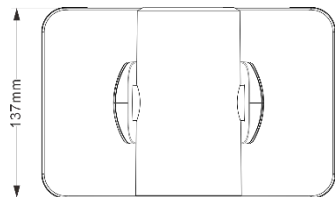
## 4.1 Size And Dimension



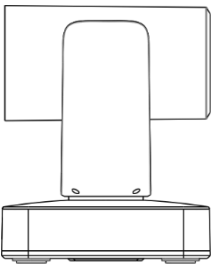
Front



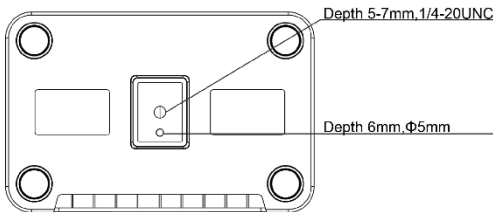
Rear



Top



Side



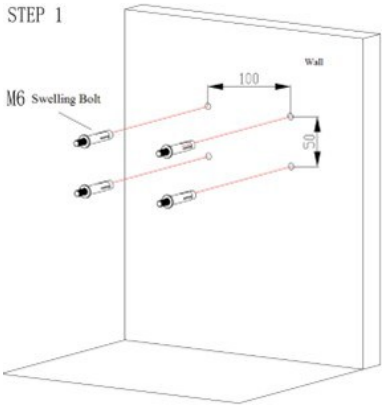
Bottom

# 4.2 Installation

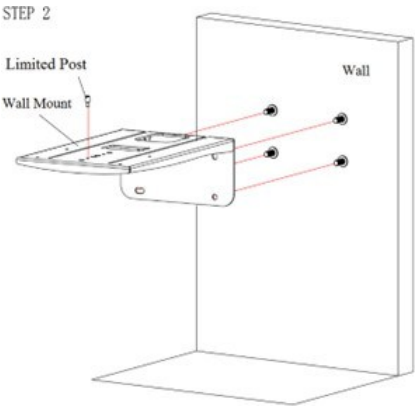
Ceiling or wall mounting brackets can only be mounted on template and concrete wall. For safety reasons, plasterboard is not recommended.

## 4.2.1 Wall Mount

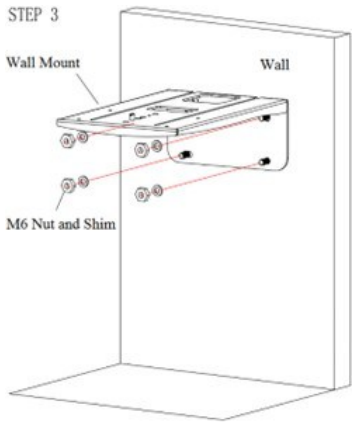
STEP 1



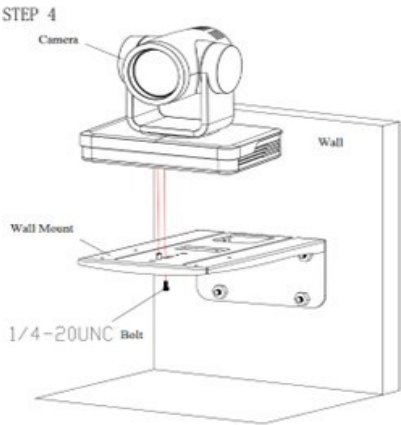
STEP 2



STEP 3

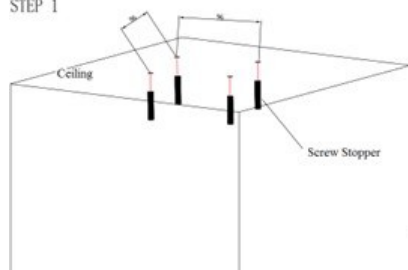


STEP 4

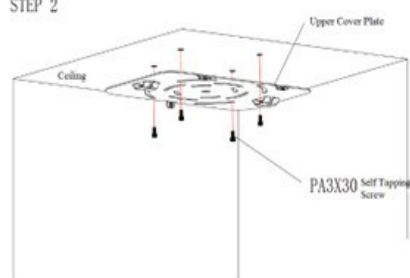


## 4.2.2 Ceiling Mount

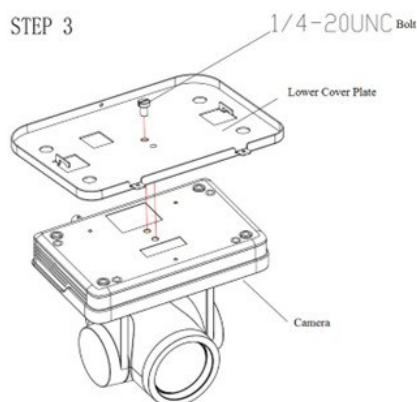
STEP 1



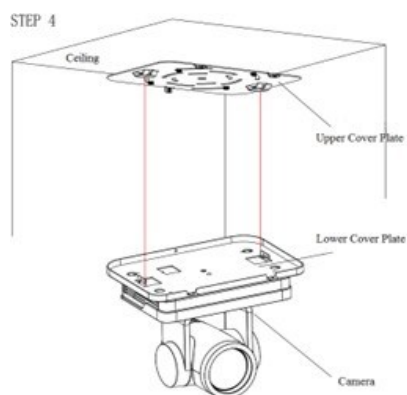
STEP 2



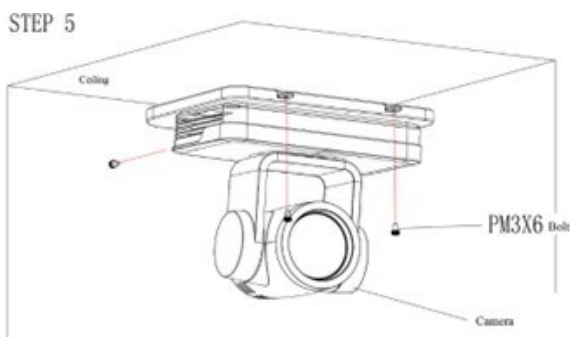
STEP 3



STEP 4



STEP 5

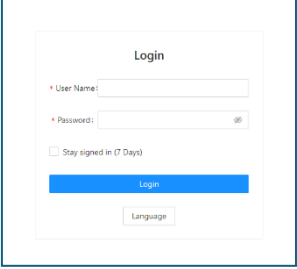


## 5. WebUI Instruction

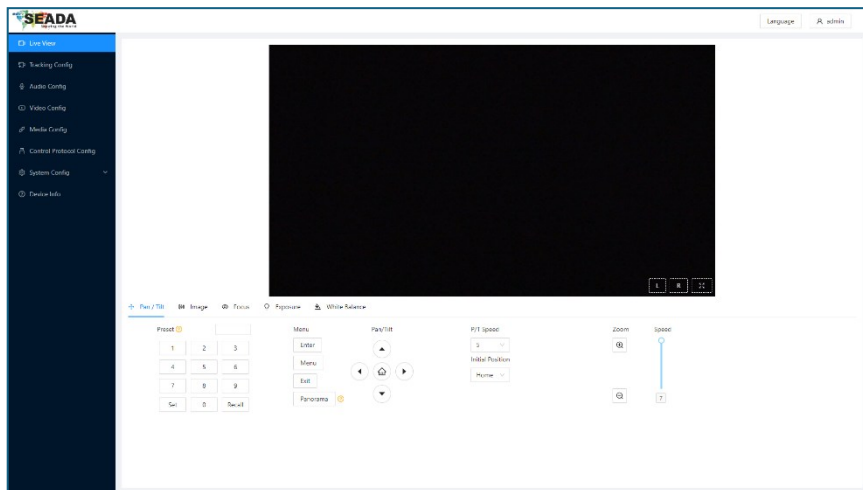
### 5.1 Web Client

To Access the Web Client Interface, type the device's IP address (default = 192.168.5.163) in the address field of your internet browser and press enter to access the Web Client login page. You can log in as a standard user or as an administrator.

When logging in as an administrator (**Default Username: admin; Password: admin**), administrators can preview the camera image and configure the camera settings; If logging in as a '**standard operator**', users cannot access the option for the firmware upgrade; If logging in as a '**standard user**', users can only preview image from the camera.

The login page is titled "Login". It features two input fields: "User Name:" and "Password:". The "Password:" field has a small eye icon to its right. Below these fields is a checkbox labeled "Stay signed in (7 Days)". A prominent blue "Login" button is centered below the checkbox. At the bottom of the form, there is a "Language" button.

### 5.2 Live View

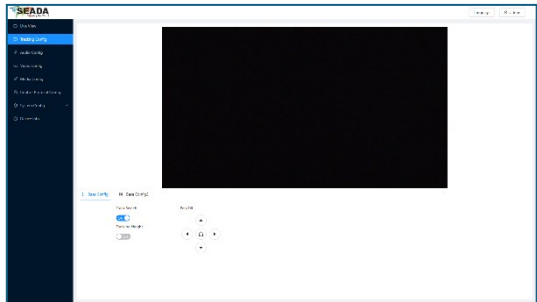


After successful login into the management interface, it enters the video preview interface. In the preview screen, users can control PTZ, zoom, focus, full screen, rotate, change image parameter, call menu and set the preset position and recall, and other operations.

## 5.3 Tracking Config

Users can Control PTZ and enable/disable tracking of the camera. Enable and change of tracking height will confirm the activated zone for the camera to track.

Users can also change the sensitivity, speed and target lost time of the tracking and decide whether the camera tilts during tracking.



## 5.4 Audio Config

**Audio Input:** Line-in only.

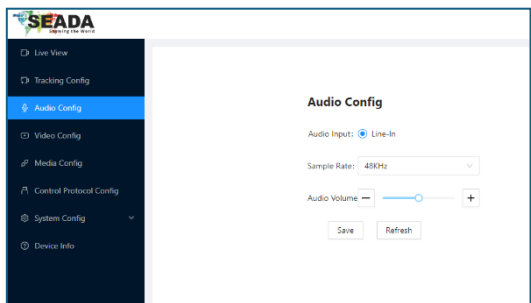
**Chanel:** Stereo only.

**Sample Rate:** Sampling frequency.  
(48KHz)

**Audio Bitrate:** 48Kbps (64, 96, 128Kbps for option)

**Coding Type:** ACC only.

**Audio Volume:** Set the input audio volume.



## 5.5 Video Config

**Stream Type:** Different video output mode setting, use different streams. (Main stream, Sub stream)

**Resolution:** Set video image resolution. (Main stream default 1920\*1080, 640\*360, 1280\*720 and 3840\*2160 as option; Sub stream default 1280\*720, 640\*320, 1920\*1080 as option)

**Bitrate Type:** Set rate control mode. (Main/Sub stream default constants bit rate, variable bit rate as option).

**Bitrate Kbps:** Set the video bit rate. (Main/Sub stream default 4000Kb/s, 2000 - 12000Kb/s as option)

**Video Format Rate:** Set the video frame rate. (Main/sub stream default 30 Frame/s, 1-60 Frame/s as option)

**Encoding Type:** Set the video compression format. (Main/Sub stream default: H.264, H.265 as option)

**Encoding Level:** Set the image quality. (Main/Sub stream default: High, Base/Main as option)

**I-Frame interval:** Set the key frame interval. (Main/Sub stream default 30, Main/Sub 1 – 255 as option.)

**Video Format:** Set the HDMI output resolution. (Default 4K30, 720P50/60, 1080P25/30/50/60, and 4K25/30.)

## 5.6 Media Config

The screenshot shows the 'Media Protocol Config' page in the SEADA web interface. The left sidebar contains navigation links: Live View, Tracking Config, Audio Config, Video Config, Media Config (selected), Control Protocol Config, System Config, and Device Info. The main content area is titled 'Media Protocol Config' and has tabs for RTSP, RTMP, and NDI. The RTSP tab is active, showing 'Protocol Port: 554' with 'Save' and 'Refresh' buttons. The RTMP tab shows two 'Dispose' sections, each with an 'Enable' toggle, 'Stream Type' dropdown (set to 'Main Stream'), and 'Stream Address' text input. The NDI tab shows 'NDI Group Name' (Public), 'NDI Device Name' (SDCC008-B12), and 'NDI Stream Name' (Default), with 'Save' and 'Refresh' buttons at the bottom.

**Protocol Port:** Change the port for the RTSP protocol. (Default 554)

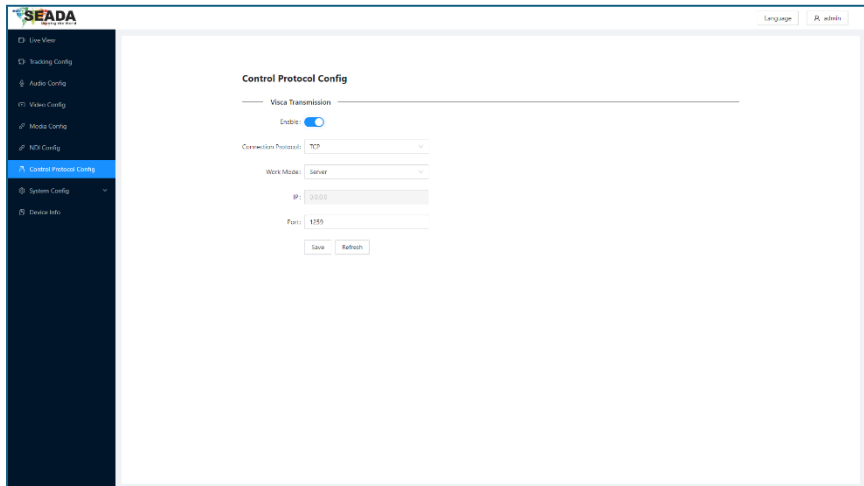
**RTMP:** Set RTMP stream for camera.

## 5.7 NDI Config

The screenshot shows the 'NDI Config' page in the SEADA web interface. The left sidebar is the same as in the previous screenshot, with 'NDI Config' selected. The main content area is titled 'NDI' and has a toggle for 'NDI Enable' (checked). Other settings include 'NDI HD Mode' (H264), 'NDI Group Name' (Public), 'NDI Device Name' (SDCC008-B12), and 'NDI Stream Name' (Default). There are also fields for 'Multicast Enable' (unchecked), 'Multicast IP' (192.168.1.100), 'Multicast Port' (10000), 'Discovery Enable' (unchecked), and 'Discovery Service IP' (192.168.1.100). 'Save' and 'Refresh' buttons are at the bottom.

Enable/Disable NDI function and set up NDI parameters.

## 5.8 Control Protocol Config



The screenshot shows the SEADA web interface with the 'Control Protocol Config' page selected in the left sidebar. The main content area has the title 'Control Protocol Config' and a section for 'Visca Transmission'. It includes a toggle switch for 'Enable' (currently on), a dropdown for 'Connection Protocol' (set to 'TCP'), a dropdown for 'Work Mode' (set to 'Server'), an input field for 'IP' (set to '192.168.1.100'), and an input field for 'Port' (set to '1555'). At the bottom are 'Save' and 'Refresh' buttons.

**Enable/Disable:** Enable/Disable transparent transmission.

**Connection Protocol:** Choose TCP/UDP protocol.

**Work Mode:** Choose Client or Server.

**IP:** When the camera is set as client, the IP address of the transmitted camera is needed. When the camera is set as server, the IP address can be left as blank.

**Port:** Choose from 1-65535 as transparent transmission port.

## 5.9 User Manage

**User Role:**

Admin – Access to all functions.

Operator – Access to all functions except firmware upgrade.

User – Access to preview only.

## 5.10 Ethernet Config

SEADA

language A menu

Home View  
Tracking Config  
Audio Config  
Video Config  
Media Config  
Control Protocol Config  
System Config  
User Manager  
General Config  
Firmware Update  
Device Info

Physical Adapter

DHCP ☐

IP address: 192.168.5.163  
Subnet mask: 255.255.255.0  
Gateway: 192.168.5.1  
DNS1: 0.0.0.0  
DNS2: 0.0.0.0

Apply Reboot

**DHCP:** Enable or disable obtain IP automatically can be set.

**IP Address:** Set the IP address. (Default 192.168.5.163). Note: This IP address is the same as the one used to login to the Web page.

**Subnet Mask:** Set the subnet mask. (Default 255.255.255.0)

**Default Gateway:** Set the default gateway. (Default 192.168.5.1)

**DNS1/DNS2:** Set the server prior. (Default 0.0.0.0)

## 5.11 Firmware Update

**Reset:** Factory reset the camera.

**Reboot:** Reboot the camera.

## 5.12 Device Info

**Device Type:** Device name.

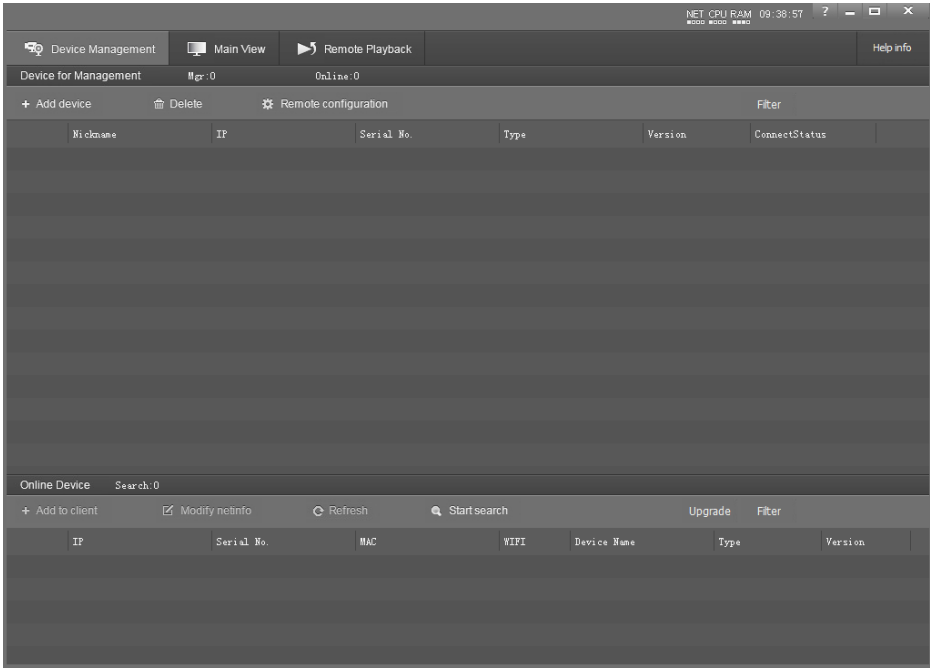
**Firmware Version:** Device firmware version.

**Device MAC Address:** Device MAC Address.

# 6. DEVICE MANAGEMENT

## 6.1 CameraCMS Instruction

Install and open CameraCMS on PC, enter the user interface:



If the camera and PC are in the same LAN, click **Start Search**, then search starts and all online devices will be listed, as the picture shown below:

Online Device		Search: 14						
+ Add to client		<input checked="" type="checkbox"/> Modify netinfo	<input type="checkbox"/> Refresh	<input type="checkbox"/> Stop search	Upgrade		Filter	
	IP	Serial No.	MAC	WIFI	Device Name	Type	Version	
001	10.0.3.177	32B20B2SP06QU86E3J4	00:04:05:08:FE:19	No	Camera 1	Camera 1	5.1.54	
002	10.0.3.106	I4V672H2BDOTQ110D80	00:04:05:01:88:69	No	Camera 2	Camera 2	2.2.02	
003	10.0.3.196	U523B502UDQSQU70LAR4	00:04:05:0F:6F:35	No	Camera 3	Camera 3	2.2.02	
004	10.222.2.21	70C382H22B0IQV55F055	00:04:05:02:0F:8B	No	Camera 4	Camera 4	2.2.01	
005	10.0.3.191	N123372W10UQUJ1J5U5	00:04:05:07:A4:D1	No	Camera 5	Camera 5	2.1.29	

To modify the device's network information, enter the IP address, mask, gateway in the **Modify Network** column.

✕

### Modify Network Parameter

Ethernet

Device information:

CameraName

Camera 1

Mac

00:04:05:01:88:69

SN

I4V672H2BDOTQU10K080

Network information:

ConnType

Static IP

IP

10.0.3.106

Mask

255.255.255.0

GateWay

10.0.3.1

DNS1

0.0.0.0

DNS2

0.0.0.0

Modify

To control and preview a camera, first choose the device, modify its IP address as the IP address of the same LAN, then click Add To Client as the picture shown below.

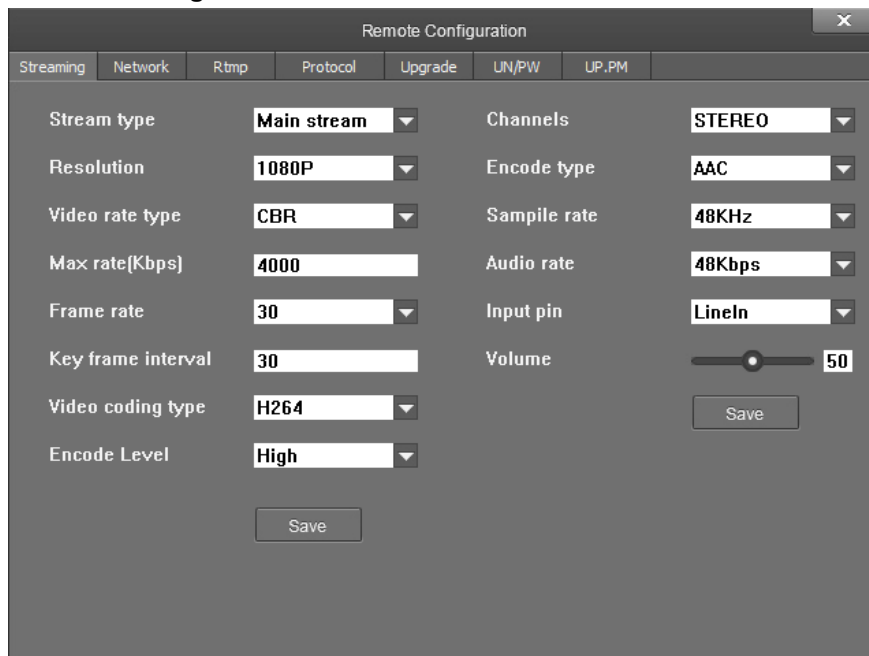
Online Device		Search: 14					
+ Add to client		<input checked="" type="checkbox"/> Modify netinfo	<input type="checkbox"/> Refresh	<input type="checkbox"/> Stop search	Upgrade Filter		
	IP	Serial No.	MAC	WiFi	Device Name	Type	Version
001	10.0.3.177	328020823F06QU86K3J4	00:04:05:08:FE:D9	No	Camera 1	Camera 1	5.1.54
002	10.0.3.106	I4V672H2BDOTQU10K080	00:04:05:01:88:69	No	Camera 2	Camera 2	2.2.02
003	10.0.3.196	V523B502UD0SQU70LAB4	00:04:05:0F:6F:35	No	Camera 3	Camera 3	2.2.02
004	10.222.2.21	70C382M22B01QU35P055	00:04:05:02:0F:68	No	Camera 4	Camera 4	2.2.01
005	10.0.3.191	N12337P2W10UQUJ1J5U5	00:04:05:07:A4:D1	No	Camera 5	Camera 5	2.1.29

Please check that all IP addresses are in the same LAN.

## 6.2 Remote Configuration

Choose the camera in the device list, click [Remote Configuration](#) to upgrade or config the camera.

### 6.2.1 Streaming



The screenshot shows a 'Remote Configuration' window with a tabbed interface. The 'Streaming' tab is selected. The window contains various configuration options for streaming, organized in two columns. The settings are as follows:

Streaming	Network	Rtmp	Protocol	Upgrade	UN/PW	UP.PM
Stream type	Main stream					
Resolution	1080P					
Video rate type	CBR					
Max rate[Kbps]	4000					
Frame rate	30					
Key frame interval	30					
Video coding type	H264					
Encode Level	High					
Channels	STEREO					
Encode type	AAC					
Sample rate	48KHz					
Audio rate	48Kbps					
Input pin	LineIn					
Volume	50					

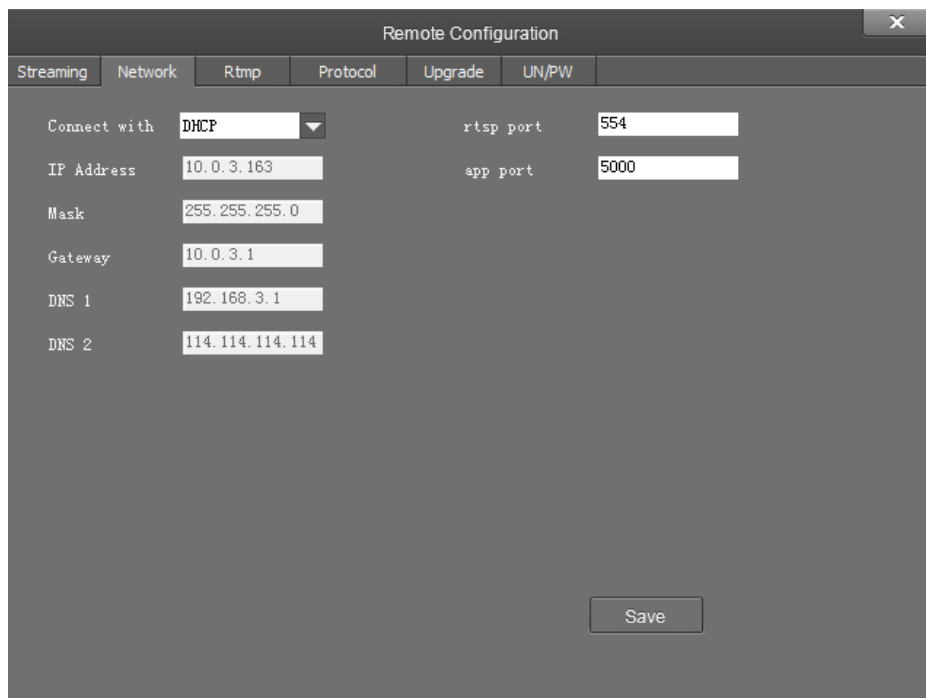
There are two 'Save' buttons: one at the bottom left and one at the bottom right.

- **Stream Type:** Set the parameters of main stream, sub stream.
- **Resolution:** Set among 4K (3840\*2160), 1080P (1920\*1080), 720P (1280\*720), 360P (640\*360), choose resolutions based on actual requirements and capability of device. The higher the resolution is, the better network requirements will be needed.
- **Video Rate type:** Choose CBR or VBR.
- **Max Rate:** Configure max stream rate or adjustable stream rate.
- **Frame Rate:** Choose from different frames per second.
- **Key Frame interval:** Configure the number of frames between the two key frames. The larger the key frame interval is, the smaller the fluctuation of the byte will be, but the image quality is

relatively poor. Vice versa, the larger the fluctuation of the byte will be, the higher the image quality will be.

- **Video Coding type:** Choose H.264 or H.265.
- **Encode Level:** Choose from Base, Main and High.
- **Channels:** STEREO.
- **Encode Type:** AAC.
- **Sample Rate:** 48KHz.
- **Audio Rate:** Choose from 48Kbps, 64Kbps, 96Kbps and 128Kbps.
- **Input Pin:** LineIn.
- **Volume:** The range of volume is 0~100.

## 6.2.2 Network



The screenshot shows a 'Remote Configuration' window with a dark grey background. At the top, there is a title bar with a close button (X) on the right. Below the title bar is a tabbed interface with six tabs: 'Streaming', 'Network', 'Rtmp', 'Protocol', 'Upgrade', and 'UN/PW'. The 'Network' tab is currently selected. The main area of the window contains several configuration fields. On the left, there are labels for 'Connect with', 'IP Address', 'Mask', 'Gateway', 'DNS 1', and 'DNS 2'. On the right, there are labels for 'rtsp port' and 'app port'. The 'Connect with' field is a dropdown menu set to 'DHCP'. The 'IP Address' field contains '10.0.3.163'. The 'Mask' field contains '255.255.255.0'. The 'Gateway' field contains '10.0.3.1'. The 'DNS 1' field contains '192.168.3.1'. The 'DNS 2' field contains '114.114.114.114'. The 'rtsp port' field contains '554'. The 'app port' field contains '5000'. At the bottom right of the window is a 'Save' button.

Field	Value
Connect with	DHCP
IP Address	10.0.3.163
Mask	255.255.255.0
Gateway	10.0.3.1
DNS 1	192.168.3.1
DNS 2	114.114.114.114
rtsp port	554
app port	5000

- **Connect With:** Choose from Static IP or DHCP address.
- **IP Address:** IP address for the camera.
- **Mask:** Mask address for the camera.
- **Gateway:** Gateway IP address.
- **DNS 1:** Server-prior, DNS address for the device.
- **DNS 2:** It will be used in case the DNS1 server is not working.
- **Port:** Streaming port (RTSP) and application port (SDK connection) can be configured. The range of stream ports is 3479~7999 and 554, default is 554. The range of application ports is 3479~7999, default is 5000.
- Click the **Save** button after setting is completed.
- Camera will connect to ethernet after above-mentioned operations.

### 6.2.3 RTMP

Remote Configuration

Streaming

Network

Rtmp

Protocol

Upgrade

UN/PW

UP.PM

RTMP 1

Main stream

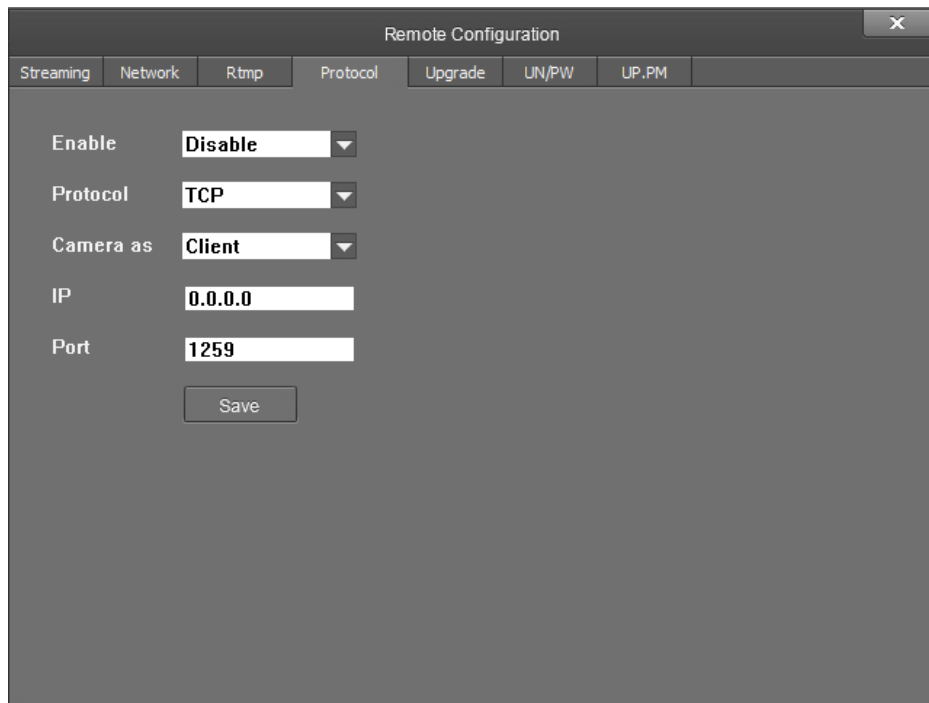
RTMP 2

Sub stream

Save

In RTMP1 and RTMP2, main stream, sub stream can be chosen to stream.

## 6.2.4 Protocol

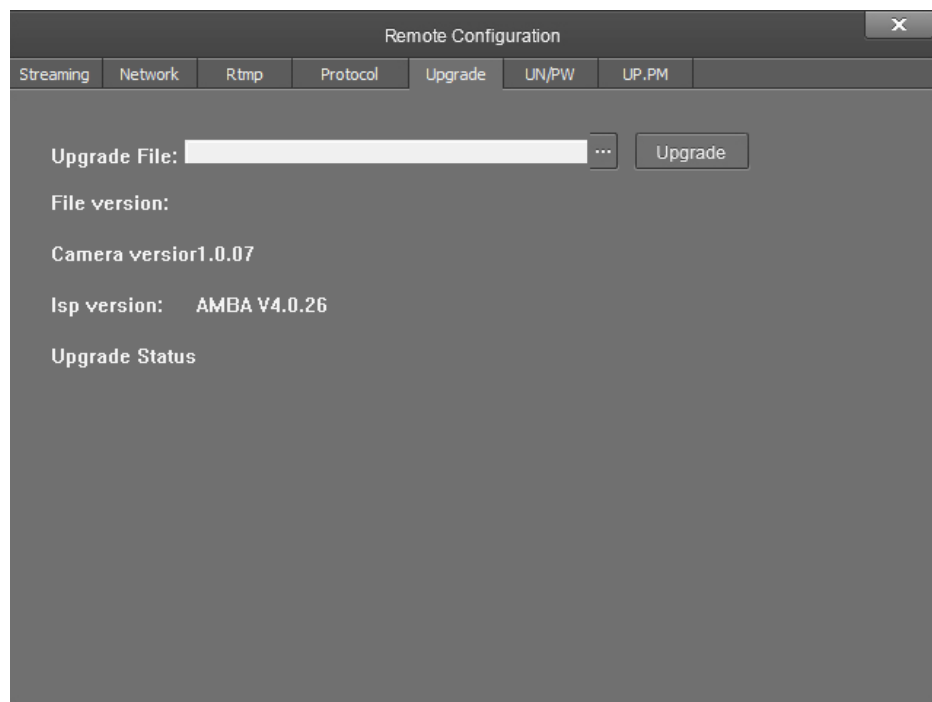


The screenshot shows a 'Remote Configuration' window with a tabbed interface. The 'Protocol' tab is selected. The window has a title bar with a close button. Below the tabs, there are five configuration rows: 'Enable' with a dropdown menu set to 'Disable'; 'Protocol' with a dropdown menu set to 'TCP'; 'Camera as' with a dropdown menu set to 'Client'; 'IP' with a text input field containing '0.0.0.0'; and 'Port' with a text input field containing '1259'. A 'Save' button is located below the 'Port' field.

Streaming	Network	Rtmp	Protocol	Upgrade	UN/PW	UP.PM
Remote Configuration						
Enable	Disable					
Protocol	TCP					
Camera as	Client					
IP	0.0.0.0					
Port	1259					
Save						

- **Enable / Disable:** Enable / Disable transparent transmission.
- **Protocol:** Choose TCP or UDP protocols.
- **Camera As:** Choose Client or Server.
- **IP:** When the camera is set as client, the IP address of the transmitted camera is needed. When the camera is set as server, the IP address can be left as black.
- **Port:** Choose from 1-65535 as transparent transmission port.

## 6.2.5 Upgrade



Click **Upgrade** menu to enter the main interface, as the picture shown above.

Click **...** to search and load the updating firmware, then click **Upgrade** to start upgrading. Do not power off the camera during upgrading. After the upgrading is completed, the camera will reboot.

## 6.2.6 UP/PW

Remote Configuration

Streaming

Network

Rtmp

Protocol

Upgrade

UN/PW

UP.PM

Old passwor

New passwo

Confirm

Save

Camera nam

Camera1

Save

Reboot

Reboot

Reset

Local Time

2021-11-30 16:57:!

OK

Display Time

Time Format

YYYY-MM-DD HH:mm:ss

OK

Enable NTP

Disable

TimeZone

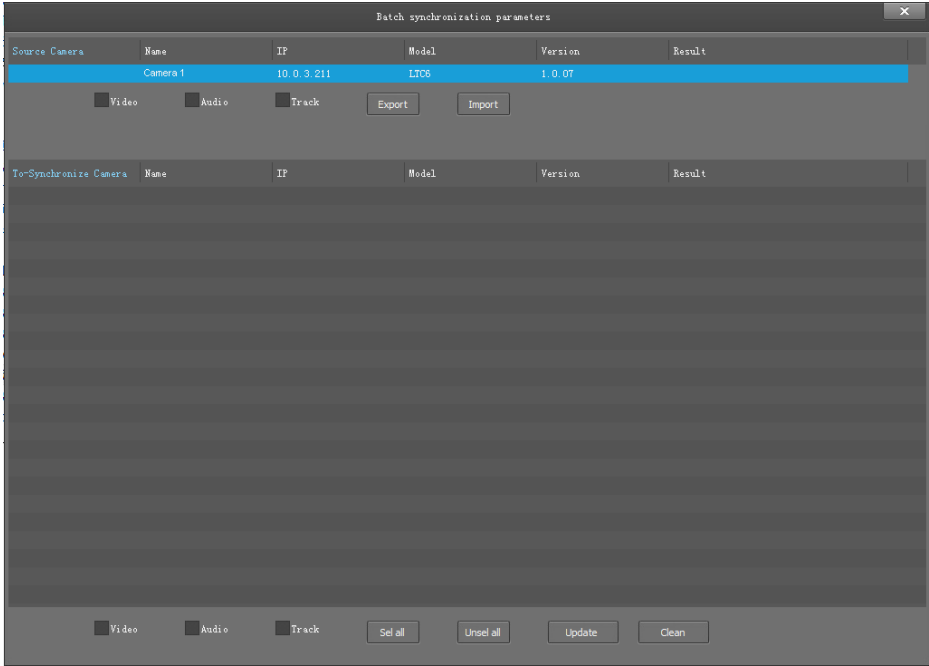
+00:00

NTP Server

OK

- **Password setting:** When a password is required, the camera can be accessed only after a correct password is entered.
- **Reboot:** Reboot the camera.

6.2.7 UP.PM



After selecting the same model of the device to be synchronized that is now managed and unchecked, tick any or more of the video parameters, audio parameters, and trace parameters, and when you click the UP.PM, the device that you are currently synchronizing will synchronize with the source device parameters.

Parameter import, parameter export: only for source device operations, you can export camera parameters to a file, or you can import parameters from a file into the camera.

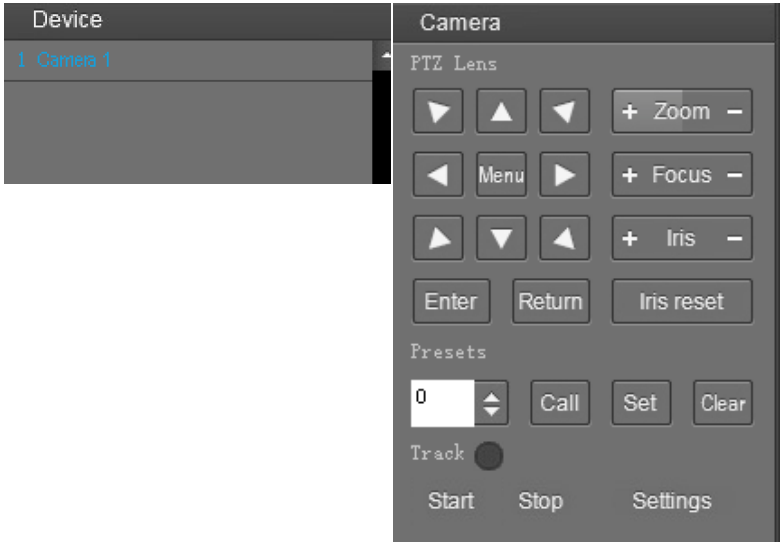
Bulk synchronization: Only for synchronous device operations.

### 6.2.8 Preview

Click **Main View** to get into camera control and preview part as below.

This interface includes three main parts: Device List, Device Control, Video Preview.

- **Device:** It displays all online cameras added to “Device Management”.
- **Device Control:** Get control of the selected camera (camera name in blue).



- **Video Preview:** Double click the camera in the list, main camera stream will be displayed in the preview window; or right click the selected camera from the left column to get its main or sub stream video. Video preview mode can be a single video or four videos. When in four video mode, select one of the four videos and then choose the bottom right icon to enlarge this selected video to a big single window.

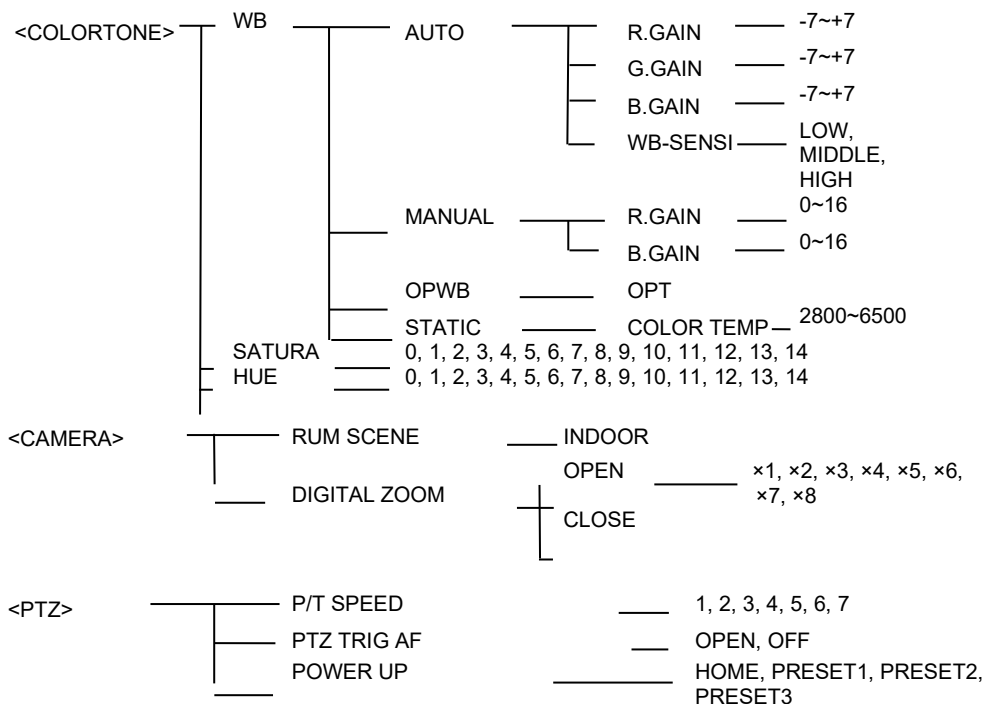
# 7. MENU SETTINGS

## 8.1 Menu Configuration

<IMAGE>	SHARPNESS		0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
	BRIGHTNESS		0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	CONTRAST		0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
	2DNR LEVEL		0, 1, 2, 3, 4, 5, 6, 7
	3DNR LEVEL		0, 1, 2, 3, 4, 5, 6, 7
	DRC		0, 1, 2, 3, 4, 5
	MIRROR		ON, OFF
	FLIP		ON, OFF
<EXPOSURE>	AUTO	ANTI -FLICKER	OFF, 50HZ, 60HZ
		BLC	OPEN, OFF
		EXP-COMP	ON -7, -6, -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5, +6, +7
			OFF
	MANUAL	GAIN	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
		SPEED	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
		LEVEL	F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE
	SHUTTER	SPEED	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
	IRIS	LEVEL	F14, F11, F9.6, F8, F6.8, F5.6, F4.8, F4, F3.4, F2.8, F2.4, F2, F1.6, CLOSE

## Note

The shutter speed in this exposure parameter is a reference value at 30/60 FPS.



< SYSTEM >	PROTOCOL ADDR	1, 2, 3, 4, 5, 6, 7
	IR ADDR	1, 2, 3
	MOUNT MODE	STAND, CEILING
	PROTOCOL	VISCA, PELCO-P, PELCO-D
	BAUDRATE	2400, 4800, 9600, 38400
	VIDEO FORMAT	4K60, 4K50, 4K30, 4K25, 1080P60, 1080P50, 1080P30, 1080P25, 720P60, 720P50
	LANGUAGE	ENGLISH, CN
	DEFAULTS	CONFIRM
	NETWORK	
	MODE	STATICIP, DHCP
	IP ADDRESS	10.0.3.211
	NET MASK	255.255.255.0
	GATEWAY	10.0.3.1
	DNS1	0.0.0.0
	DNS2	0.0.0.0

### Note

The video format is set with the DIP switch.

<DEVICE INFO> — FIRM VERSION

## 8.2 Menu Explanation

1) Press **Menu** button to enter / exit menu.

2) Press **▲▼** button to select options, it is selected when the font is enlarged, press **Enter** to enter the menu.

3) Press **◀▶** to change the value.

Menu	Options	Function Descriptions
Image	Sharpness	Adjust the sharpness of image and image edge sharpness. The higher this number is, the more contrast the detail in the plane of the image will be, making it look clearer.
	Brightness	Adjust the brightness of the image.
	Contrast	Refers to the ratio between the brightest and darkest areas of the image. The greater the ratio, the more gradation levels from black to white will be, thus the richer the color performance, the clearer the image is.
	Gamma	Adjust the permeability of the image.
	2DNR	When the camera is a color image, it is recommended that the user turn off the digital noise reduction function, otherwise the image sharpness will be affected.
	3DNR	By comparing several adjacent images, the noise is automatically filtered out, so that the image noise is significantly reduced, the image is more thorough, and the picture is more pure and delicate. The higher the noise reduction level of the picture, the finer the picture quality and the smaller the jitter feeling. The lower the noise reduction level of the picture, the higher the picture quality and the greater the jitter
	DRC	It refers to the adaptability of the camera to strong light, specifically refers to the variation range of brightness (contrast) and color temperature (contrast).

	Mirror	The camera image is turned 180 ° horizontally.
	Flip	The camera image flips 180 ° vertically.
<b>Exposure</b>	Auto Exposure	According to the ambient brightness prototype to automatically generate exposure parameters and adjust the picture brightness.
	Manual Exposure	The user manually sets the exposure parameters and adjusts the picture brightness.
	Iris Priority	Gain and shutter speed value are adjusted automatically according to working environment; Iris value is adjustable manually.
	Shutter Priority	The aperture is fixed, and the picture brightness is adjusted by adjusting the shutter.
	Bright Priority	The shutter is fixed, and the brightness level of the picture is adjusted by adjusting the analog gain or aperture.
<b>Color Tone</b>	WB Mode	It refers to the working mode of restoring white objects to white under different color temperature environments. It is divided into automatic, manual, one key white balance and other modes.
	WB-Sensi	White balance sensitivity is the threshold of environmental change conditions that trigger white balance convergence. The higher the sensitivity, the easier it is to trigger.
	Saturation	Refers to the purity and brightness of image color, the higher the saturation, the color effect is bright and beautiful.
	Hue	Adjust the overall color of the image.
<b>PTZ</b>	P/T Speed	Set camera's Pan / Tilt speeds.
	PTZ Trig AF	When the camera moves horizontally, vertically and multiplies, it automatically focuses.

	Power UP	This operation is performed when the camera is powered on and doesn't receive the control command.
<b>System</b>	Protocol Address	Change camera's address through menu settings.
	IR Address	Set the IR control address for the camera.
	Mount Mode	The camera image flips 180° vertically and horizontally.
	Protocol	Set the camera control protocol.
	Baud Rate	View and set the current baud rate of the camera.
	Video Format	View and set the current video format of the camera.
	Language	View and set the current language of the camera.
	Defaults	Used to restore all menu parameter settings to factory default settings.
	Network	View and set the current camera network.
<b>Device Info</b>	Firm Version	The version number of the firmware, including the update of the software program.

## 8. TECHNICAL SPECIFICATIONS

Camera	
Image Sensor	1/2.8"4K CMOS, 8.46MP
Focal Length	f=4.7mm-94mm
Iris	F1.6 ~ 2.8
Optical Zoom	12x
Horizontal Viewing Angle	72.5°~6.3°
Focus System	Auto / Manual, PTZ Trigger, One Push Trigger
White Balance	Auto, Manual, OPWB, Static
Exposure Control	Auto, Manual, Shutter Priority, Iris Priority, Bright Priority
S/N	≥50dB
DNR	2D/3D
BLC	Support
PTZ	
Pan Angle	-170°~+170°
Tilt Angle	-30°~+90°
Pan Speed	0.1°/s ~120°/s
Tilt Speed	0.1°/s~90°/s
Preset Number	256
Image Flip	Support
Interface	
HDMI	1 channel HDMI 2.0 Support 4K30/25, 1080P60/50/30/25, 720P60/50
Network	RJ45 (10M/100M), POE 1. Support 4K30/25, 1080P30/25, 720P30/25, 360P30/25 2. Image compression H.264, H.265

USB	1 channel USB3.0 1. Support UVC 1.1 2. Image compression H.264/H.265/MJPEG; support 4K/30/25, 1080P60/50/30/25, 720P60/50/30/25, 360P30/25
3G-SDI	1 x 3G-SDI, support 1080P60/50/30/25, 720P60/50
Audio Interface	1 channel LINE IN, 3.5mm audio interface
Control Interface	1 channel RS-232 IN, 1 channel RS-232 OUT
Power	DC12V
<b>General</b>	
Protocol	VISCA/PELCO-D/ PELCO-P
Power Consumption	<15W
Operating Temperature	0°C ~ + 40°C
Storage Temperature	-20°C ~ + 40°C
Operating Humidity	10%RH ~ 90 %RH
Storage Humidity	10%RH ~ 95 %RH
Dimensions (W×H×D)	211mm×137mm×170mm
Weight	< 1.2kg
Color	Gray

## 9. TROUBLESHOOTING

Problem	Possible Cause	Solution
No action or image after powered on	Power supply failure	Check power supply
	Power adapter damaged	Replace power adapter
	Power cable connection got loosen	Check & reconnect
No self-testing after powered on, or with motor noise	Power cable is too long	Use a shorter cable
	Power adapter damaged	Replace power adapter
	Mechanical failure	Repair
Not controllable from remote controller	Low battery of remote controller	Change battery for remote controller
	Exceeding remote control distance	Control within distance of 8M
After power on, self-test successfully, but not controllable	Wrong address / protocol / baud rate	Check & set again
	Wrong connection or open circuit of RS-232 cable	Check & reconnect
Video loss when pans / tilts / zooms	Power cable is too long	Use a shorter cable
	Power adapter damaged	Replace power adapter
	Video cable not properly connected	Replace with a good video cable
Video captured after connected to digital video interface of a capture device is not good as the video captured after connected directly analog video interface of the capture device	Different video capture devices have different video capturing performance, image quality maybe worse after it has been converted from analog to digital	Consult video capture device supplier for more information

# Appendice: Note tecniche



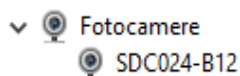
## Connessione USB 3.0

### Alimentazione

La porta USB 3.0 non può essere utilizzata per alimentare la telecamera.

### Identificazione dispositivo su Windows

In *Gestione dispositivi* la telecamera viene identificata come:



### Risoluzione video

La risoluzione massima di acquisizione in USB 3.0 è 3840x2160@30.

La risoluzione di acquisizione su USB 3.0 non influisce su quella delle uscite fisiche HDMI ed SDI.

La porta USB 3.0 può essere utilizzata anche in compatibilità 2.0; la risoluzione massima acquisibile è 3840x2160@30.

### Condivisione risorse

Quando si acquisisce da USB il preview sull'interfaccia web e gli streaming si bloccano; nel momento in cui si termina l'acquisizione da USB essi ripartono correttamente.

## Ingresso Audio In

L'ingresso Audio In è di tipo analogico stereo con livello linea e cablato su jack stereo da 3.5 mm.

Il contributo audio viene embeddato insieme al video; è disponibile sulle uscite locali HDMI, SDI, USB 3.0, per i flussi di streaming e per l'NDI (SDC024-B12N).

## Menù OSD

Il menù OSD viene visualizzato su tutte le uscite video HDMI, SDI, NDI (SDC024-B12N), USB 3.0 ed anche nel preview sull'interfaccia web e negli streaming.

## Controllo

### Pelco-P

Nelle stringhe di controllo in Pelco-P, l'ID della telecamera deve essere inserito così come è stato scelto in configurazione e non ridotto di 1 come invece prevede il protocollo.

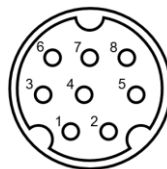
ID	Byte 2
1	0x01
2	0x02
...	...

### RS-485

Il controllo in RS-485 deve essere abilitato tramite il menù OSD della telecamera configurando la voce *COM MODE* su *RS485 IN* nel menù *SYSTEM*.

Esso avviene utilizzando il connettore *RS-232 OUT*. La piedinatura per il controllo in RS-485 è la seguente:

7	RS-485 A+
8	RS-485 B-



## Tracking

Il tracking è attivo di default e può essere configurato e controllato tramite interfaccia web e software CameraCMS.

L'attivazione/disattivazione del tracking può essere fatta tramite telecomando ad infrarossi (pulsante F1), interfaccia web e software CameraCMS.

## Alimentazione

La telecamera può essere alimentata sia con l'alimentatore tradizionale (in dotazione) che in PoE.

L'alimentazione PoE richiede switch con supporto dello standard 802.3af (PoE) ed assorbe, in condizioni di esercizio, circa 12 W.

## Streaming

### ONVIF

La porta di comunicazione Onvif è la TCP/8080.

### RTSP con autenticazione

L'autenticazione sui flussi RTSP deve essere abilitata nel menù OSD della telecamera configurando la voce *RTSP SECURITY* su *ON* nel menù *SYSTEM*.

Se si utilizza l'autenticazione nel flusso RTSP è necessario inserire nell'URL di richiesta dello streaming le credenziali di un utente abilitato. Esempio con credenziali amministrative ed indirizzamento di default:

<i>rtsp://admin:123456@192.168.5.163/ch1</i>
----------------------------------------------

## RTMP

Sull'interfaccia web, le impostazioni del flusso di streaming RTMP sono le stesse utilizzate per *Main Stream* e *Sub Stream* nel *Video Output Config*.

Sull'interfaccia web, nella sezione *RTMP* dell'area *Media Config*, si possono definire gli URL dei flussi Main e Sub RTMP in Push verso un server di streaming/rebroadcasting. Un breve esempio utilizzando Nginx come server:

