

# PureLink

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## BEYOND 4K

VIP-CAM-30-20x

Pro PTZ Camera with HDMI, USB 2.0, & LAN Output



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## What's in the Box

- 1x VIP-CAM-30-20x
- 1x RS-232 Cable
- 1x Remote Control

## Product Description

The **VIP-CAM-30-20x** is a 1080p camera with 20x optical zoom & and 8x digital zoom for capturing HD images from long distances. With support for HDMI, USB 2.0, and IP Streaming, this camera is ideal for broadcasting high-definition video signals in conferencing, live broadcast, and security/surveillance applications. The **VIP-CAM-30-20x** can be powered with the supplied 100-240 50/60Hz UL listed AC adapter, or PoE 802.3af.

## Specifications

- **Image Sensor:** 1/2.8" CMOS, 2.14 megapixel
- **Zoom:** 20x Optical, 8x Digital
- **Focal Length:** 3.9mm ~ 46.8mm
- **Iris:** F1.6 ~ 2.8
- **Horizontal Viewing Angle:** 72.5° ~ 6.3°
- **Focus System:** Auto, Manual, PTZ Trigger, One Push Trigger
- **Minimum Illumination:** 0.5 Lux
- **Shutter Speed:** 1/50s ~ 1/10,000s
- **White Balancing:** Auto/One Push/Manual/Static
- **Exposure Control:** Auto/Manual/Shutter Priority/Iris/Bright
- **S/N:** ≥50dB
- **Digital Noise Reduction (DNR):** 2D & 3D
- **Back Light Compensation:** Yes
- **Wide Dynamic:** Yes
- **Pan Angle:** -170° ~ +170°
- **Tilt Angle:** -30° ~ +90°
- **Pan Speed:** 0.1°/s ~ 120°/s
- **Title Speed:** 0.1°/s ~ 80°/s

## HDMI Video Output Formats

- 720P 50/60
- 1080i 50/60
- 1080P 25/30/50/60

## Network

### Features

- Max Support 1920x1080@30
- Image Compression H.265, H.264
- Audio Compression support AAC
- Support Dual Stream

### Protocols

- TCP, UDP, RTSP, ONVIF

## Panels

### Front



1. 20x Optical, 8x Digital
2. Power LED Indicator
3. IR Receiver

Rear



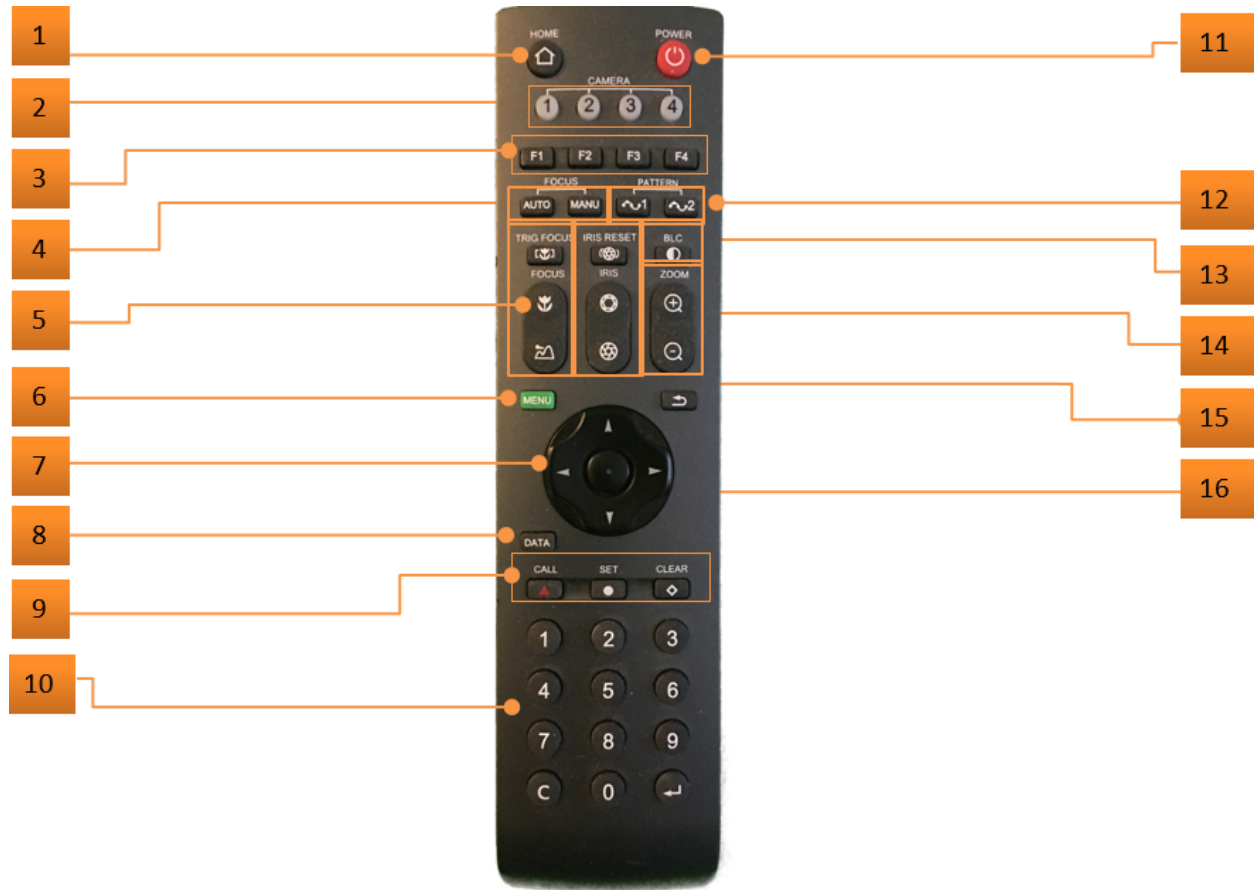
1. HDMI Out
2. USB 2.0
3. Audio In
4. Ethernet
5. RS232 In
6. RS232 Out
7. 12VDC power inlet









Bottom



1. Dip Switch
2. Mounting Holes

## Remote



1. Home: returns camera to default position
2. Camera select: Sets remote for control of cameras addressed to 1,2,3 or 4.
3. Functions: Reserved for future
4. Auto/Manual Focus: Sets camera to auto or manual focus mode
5. Focus
  - a. Trigger Focus: Performs auto focus when pressed. 
  - b. Focus Near/Far: Performs near focus  or far focus 
6. Menu: Enter/exit OSD settings menu
7. Joystick: Non-menu: controls pan and tilt. Menu: navigation
8. Data: Toggles PTZ data on screen
9. Preset functions: Call, set, or clear presets
10. Numeric: Numeric entry, C = clear, Return = Enter
11. Power: Off/On toggle. On performs PTZ calibration
12. Pattern Loop: Continuous Pan.
13. Back Light: Open/close backlight compensation
14. Zoom: Performs zoom in  or zoom out 
15. Iris:
  - a. Reset iris to default 
  - b. Iris open  or close 
16. Back: go back to previous menu

Remote requires 2x AAA batteries.

## Installation

The VIP-CAM-30-20x can be oriented the following ways:

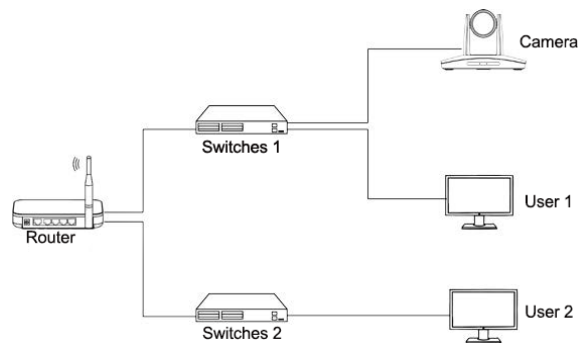
- Wall Mount
- Ceiling Mount (Optional)

## Device Management

### Device Connection

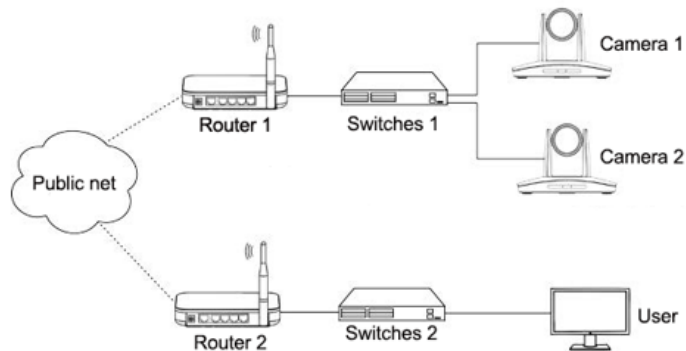
Connect the camera to the network via an Ethernet cable, then power on the camera

### LAN Connection



To connect the camera to the same LAN, plug the camera into the same router as the PC is connected to, and referring to CameraCMS software instructions seen below, then all the cameras can be found and connected by searching for the online device list.

## WAN Connection



When using WAN the CameraCMS software cannot automatically search for the camera(s) compared to LAN. This is a 3 Step process to search for the cameras using WAN

### Step One:

- Set the camera's IP address in LAN: connect the user PC to the LAN (Router 1) where the camera is connected according to the LAN connection instructions, using the Camera Control Software locate and find the camera, then add it to manage; then set camera's IP address in the same network segment as the router 1. Camera's gateway is usually set at Router 1's LAN IP address, for example, 192.168.1.1, then camera's IP address can be set as for example 192.168.1.179 or 192.168.1.180 as long as they are in the same network segment.

### Step Two:

- The computer accesses the LAN of router 1 where the camera is and enters the router configuration interface (administrator rights of router 1 should be required); enter the page of "port mapping", refer to below picture, Do not tick "Do not apply this rule", in the first frame of "External port", fill in any number from 1~65535, such as 10200 (try to select port greater than 10000 to avoid port conflict); Fill in the IP of camera 1 in the internal IP, such as 192.168.1.179, and fill in the internal port 3478 of the camera in the first box of the internal port (all cameras are fixed to this value). "Protocol" and "image line" can be selected by default. Descriptions such as "port mapping of camera 1" can be filled in the description.

### Step Three:

- Access from external network: For example, if the external IP address of router 1 is 115.200.31.100, the WAN user under router 2 can access camera 1 through IP address 115.200.31.100 and port 10200 through steps 1 and 2 above. That is to say , in WAN, camera 1 is mapped to (IP 115.200.31.100 + port 10200). Camera 2 can use another external port such as 10320, so camera 2 is mapped to (IP 115.200.31.100 + port 10320) . In the "Managed Device" of the client Camera Control software, click the button "+Add", enter the IP address 115.200.31.100 and port 10200 and other information, then the camera 1 can be accessed and controlled.

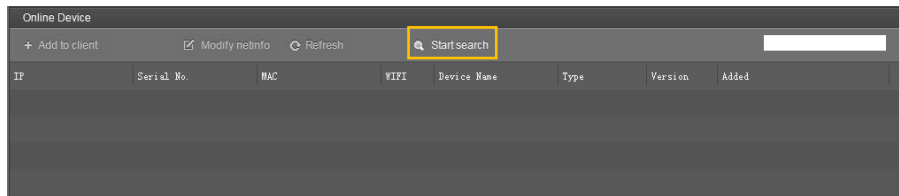


## Search and List the Camera

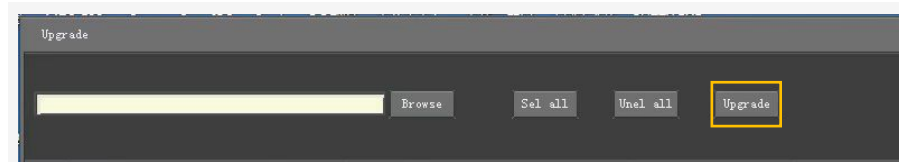
### CameraCMS Software:

Install and open the CameraCMS software on the PC, open “Device Management”

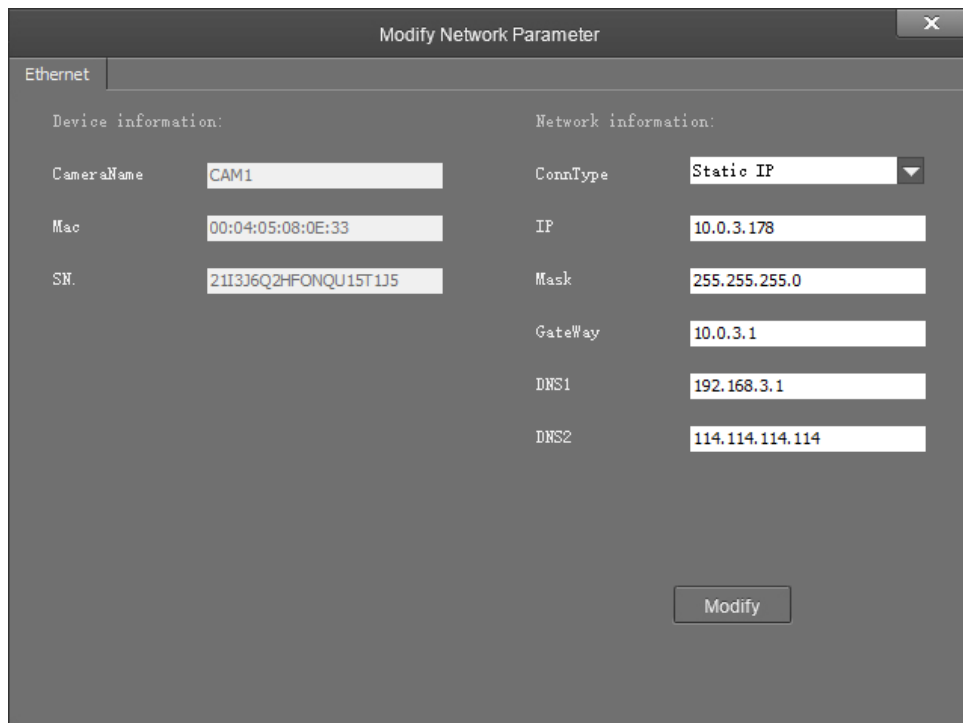
If the camera is in the LAN of PC, click “Start Search”, then searching starts and all online devices will be listed, as the picture shown below:



To upgrade multiple cameras in batch, first select multiple devices in the list and Select the upgrade file in the camera program file path, click “upgrade”.

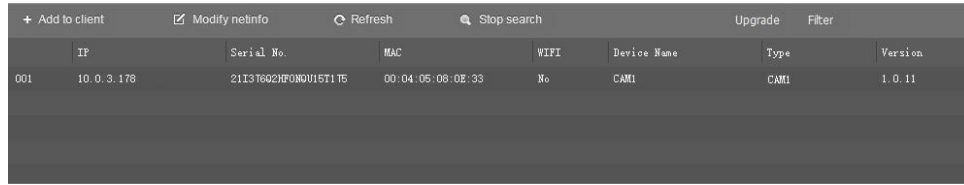


To modify the device IP address, choose the device first, then input the IP address, mask, gateway in the “Modify Network” page. Click “modify”, the network parameters take effect.



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



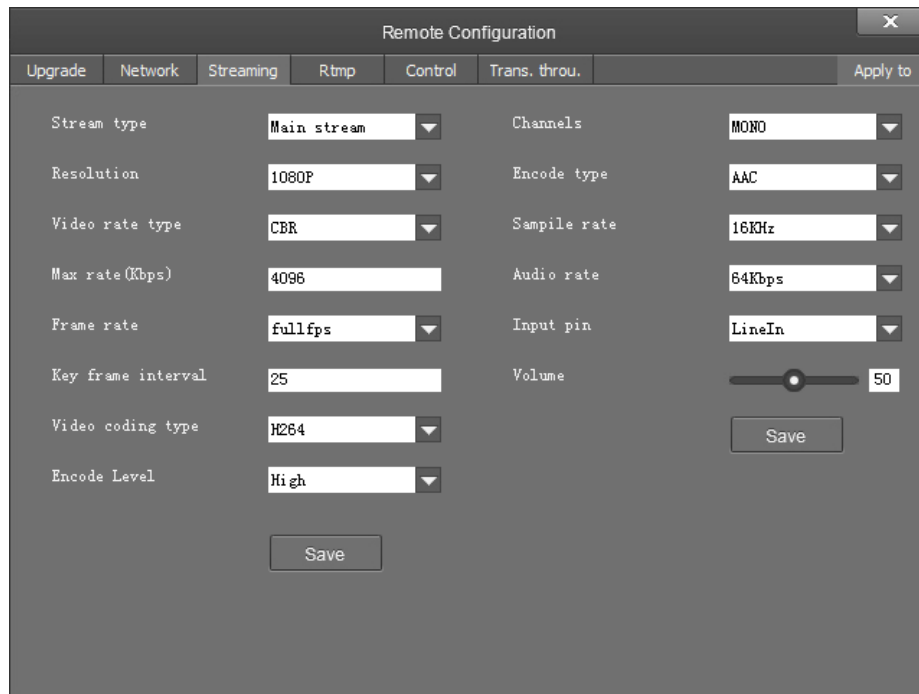
	IP	Serial No.	MAC	WIFI	Device Name	Type	Version
001	10.0.3.178	21137602HF080U15T175	00:04:05:08:0E:33	No	CAM1	CAM1	1.0.11

If it is a camera in the WAN, click “WAN access” directly to add the camera.

## Configuration

Choose the camera in the device list, open “Remote Configuration” in the column to upgrade the camera or configure parameters.

## Stream Parameters



Remote Configuration

Upgrade Network Streaming Rtmp Control Trans. throu. Apply to

Stream type	Main stream	Channels	MONO
Resolution	1080P	Encode type	AAC
Video rate type	CBR	Sample rate	16KHz
Max rate (Kbps)	4096	Audio rate	64Kbps
Frame rate	full fps	Input pin	LineIn
Key frame interval	25	Volume	50
Video coding type	H264		
Encode Level	High		

Save

Stream Type:

- Set up the parameters of the mainstream, sub stream. Different devices support different streams.

Resolution:

- 1080P 25/30/50/60, 1080i 50/60, 720P 50/60

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**\*\*It should be noted that higher definition, resolution, etc. also mean higher bandwidth requirements of the network.\*\***

Bitrate Type:

- CBR and VBR

Frame rate:

- Represents the number of frames per a second

Key frame interval:

- Configure the number of frames between the two key frames.
  - o Larger Key Frame Interval = Smaller Fluctuation of Byte = Image Quality Affected Negatively
  - o Smaller Key Frame Interval = Higher Fluctuation of Byte = Image Quality Affected Positively

Video coding type:

- H.264 or H.265

Encode level:

- Base Profile, Main Profile, and High Profile

Audio channels:

- Support mono and dual channel

Encode type:

- Represent the encode type of current device and support AAC. The sampling rate and audio rate need to be set as well

Sampling rate:

- 16KHz, 32KHz, 44.1KHz, 48KHz

Audio rate:

- 48Kbps, 64Kbps, 96Kbps, 128Kbps

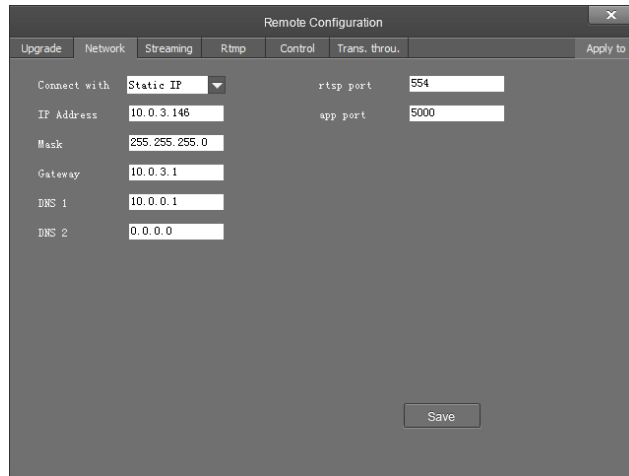
Input pin:

- Audio input

Volume:

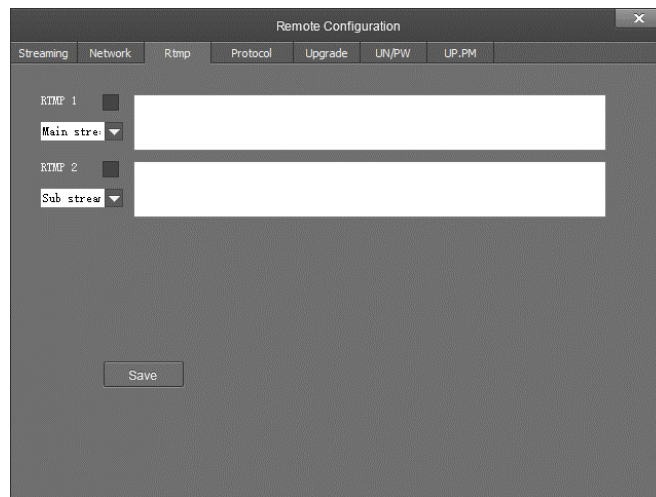
- Drag the volume bar to set the volume. The volume ranges from 0 to 100.

## Network



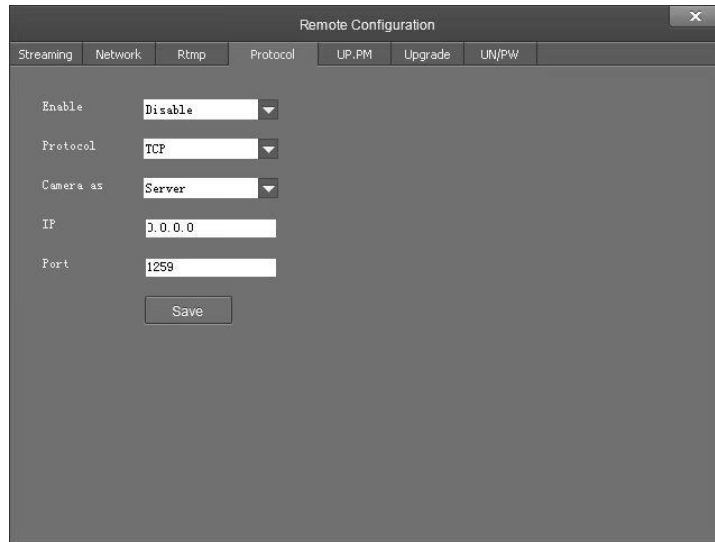
- Port: streaming port(RTSP) and application port(SDK connection) can be configured. The range of stream ports is 3479~7999 and 554, the default is 554. The range of application ports is 3479~7999, the default is 5000;
- Click the “Save” button after setting;
- Camera will connect to ethernet following the above operations.

## RTMP Stream



- RTMP1 and RTMP2 can choose main stream or sub stream to transmit video.
- Common mainstream RTMP servers are supported like red5, nginx, crtmpserver, fms, wowza.

## Transparent Transmission



The screenshot shows a 'Remote Configuration' window with a dark grey background. At the top, there are several tabs: 'Streaming', 'Network', 'Rtmp', 'Protocol', 'UP.PM', 'Upgrade', and 'UN/PW'. The 'Protocol' tab is currently selected. Below the tabs, there are five configuration fields, each with a label and a corresponding input field or dropdown menu:

- Enable:** A dropdown menu with 'Disable' selected.
- Protocol:** A dropdown menu with 'TCP' selected.
- Camera as:** A dropdown menu with 'Server' selected.
- IP:** A text input field containing '1.0.0.0'.
- Port:** A text input field containing '1259'.

At the bottom of the configuration area, there is a 'Save' button.

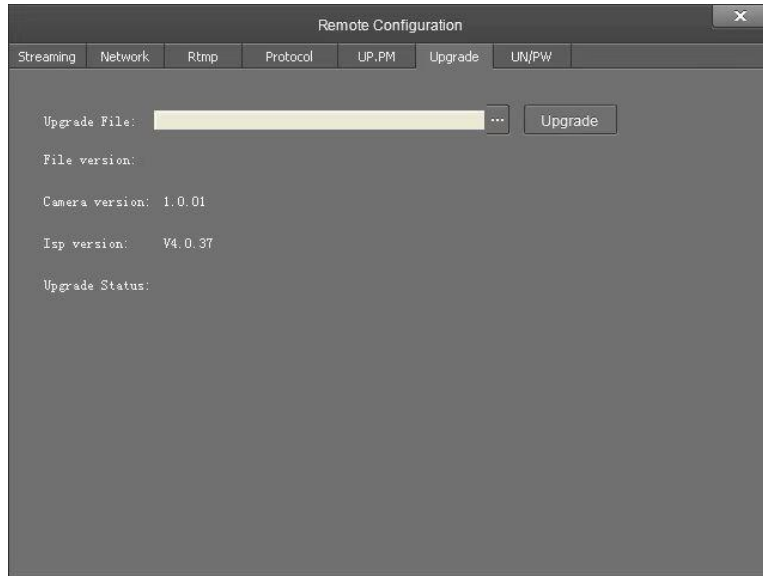
### Function:

Transmit commands through VISCA-over-IP,

Transmit the status code of camera,

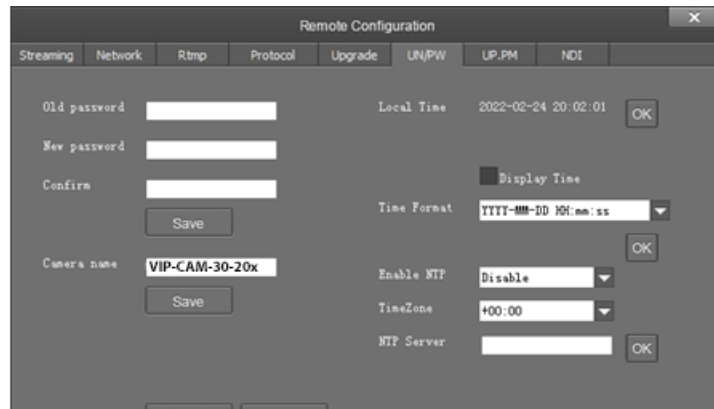
- Enable: enable transparent transmission;
- Protocol: choose TCP or UDP protocols;
- Camera: choose Client or Server;
- IP: when the camera is set as client, the IP address of the transmitted camera is needed. When the camera is set as server, the IP address can be left as black;
- Port: choose from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

## 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 upgrading completes, camera will reboot.

## System Settings



- Password setting: if the camera is set with a password, you can only connect the camera and browse the audio and video of the camera after entering the correct password;
- Camera maintenance: including restarting the camera and restoring the factory configuration;
- Device name: set the name of the camera and click "Save";
- Time configuration:

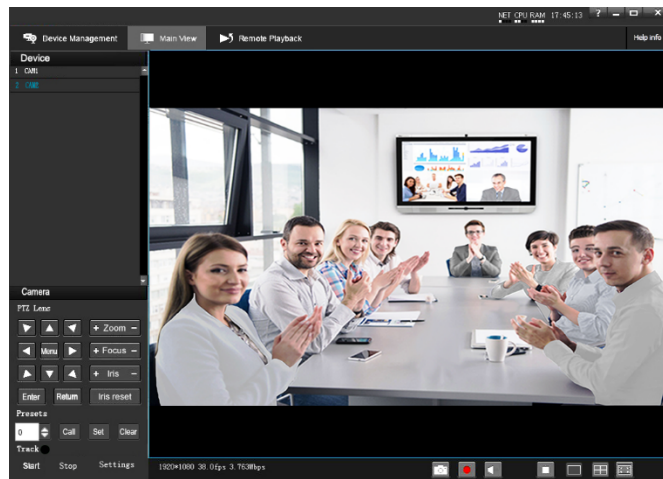
a) Synchronize local time;

- b) Whether time information and display format are displayed on CMS video;
- c) NTP (network time service) configuration.

## Preview

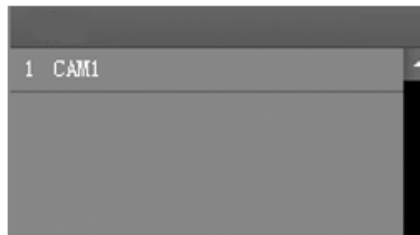
### Introduction to Video Preview

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



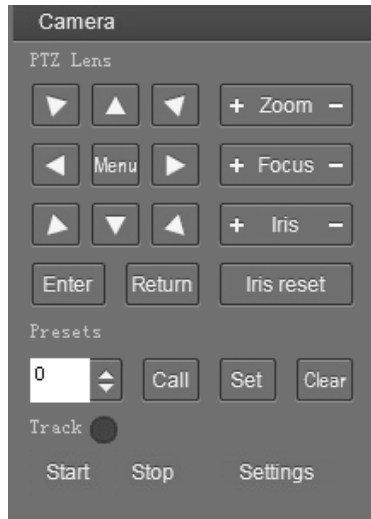
Device List:

- Displays all online cameras added to “Device Management”



Device Control:

- Any camera selected in the “Device List” can be controlled via the remote



Video Preview:

- Double click the camera in the “Device List”, the mainstream of the camera will be displayed, or you can also select the sub-stream through clicking the right button for display. Video Preview can also be single video or four channels, when in four channel mode, click to select a picture, and then click the switch icon located in the bottom right corner to present a single large picture of the selected picture



## Menu

Category	Options	Function
IMAGE	SHARPNESS	Used to adjust the sharpness of image and image edge. The higher the sharpness, the higher and clearer the contrast. But the sharpness value is too high, easy to cause the image distortion.
	BRIGHTNESS	Used to 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 clearer and brighter the image; Low contrast will make the image gray.
	2DNR	When the camera is a color image, you are advised to disable the DNR function; Otherwise, the image sharpness will be affected.
	3DNR	The higher the level of noise reduction, the more delicate the picture quality, the smaller the shaking feeling.
	DRC	It refers to the adaptability of the camera to strong light, specifically to different range of brightness and color temperature.
	MIRROR	The camera image flips 180° horizontally.
	FLIP	The camera image flips 180° vertically.
EXPOSURE	AUTO	Gain, Shutter Speed and Iris value are adjusted automatically accordingly to working environment.
	MANUAL	Manually adjust Gain, Shutter Speed and Iris.
	SHUTTER	Gain and Iris value are adjusted automatically according to working environment; shutter speed value is adjustable manually.
	IRIS	Gain and shutter speed value are adjusted automatically according to working environment; Iris value is adjustable manually.
	BRIGHT	Manually adjust the video brightness.
COLORTONE	WB	AUTO, MANUAL, OPWB, STATIC.
	SATURA	The higher the saturation, the brighter the color effect. On the contrary, the lower the saturation, the more the effect tends to black-and-white photos.
	HUE	Used to adjust the overall tendency of the color of the image, causing the color to rotate.
CAMERA	RUN SCENE	Used to set the scene for the camera's best shot.
	DIGITAL ZOOM	When the optical magnification reaches the MAX., turn on/off the digital magnification function to continue magnifying the image.
PTZ	P/T SPEED	Set camera's Pan / Tilt speeds.

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	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 ADDR	Change the camera address by software without setting the camera address through dip switch.
	IR ADDR	Set the IR control address for the camera.
	MOUNT MODE	The camera image flips 180° vertically and horizontally.
	PROTOCOL	Set the camera control protocol.
	BAUDRATE	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.
	PROMPT	Turn on/off display of zooming times.
	DEFAULTS	Used to restore all menu parameter settings to factory default settings.
	NETWORK	View and set the current network of the camera.
<b>Device Information</b>	VIDEO FORMAT	View the video format of the current camera.
	FIRM VERSION	Displays the firmware version of the current camera.

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For order support, please contact your local dealer.  
For technical support, please contact us at [support@purelinkav.com](mailto:support@purelinkav.com).

## Warranty

### **PureLink Three (3) Year Limited Warranty for PureStream™ Branded Products Only**

Dtrovision, LLC. (hereinafter “PureLink”) warrants its HDTools and PureStream™ branded products (hereinafter “Product”) purchased directly from PureLink or Dealer shall be free from defects in workmanship and materials, under normal use and service, for a period of three (3) years on parts and three (3) years on labor. Any repaired or replaced equipment related to Product shall be covered only under the remaining portion of the warranty. This warranty has no relationship to and exists independently of any warranty offered by Dealer. This warranty is a limited warranty and gives you specific legal rights. You may also have other rights which vary from state to state.

#### **TERMS & CONDITIONS**

PureLink shall repair or replace the Product if it develops a material fault during the period of warranty, on condition that i) the Product has only been subject to normal use in a domestic or commercial environment in a manner consistent with its specification and functionality, ii) the Product has been cared for reasonably and only subjected to reasonable wear and tear, iii) the defect has not been caused by willful or negligent abuse or neglect, or any accident or improper installation procedure, iv) the serial number of the Product has not been altered or removed.

This warranty only applies to the original purchaser, and shall be the exclusive remedy to the original purchaser. PureLink shall not be liable for any damages whatsoever caused by Product or the failure of Product to perform, including incidental or consequential damages. PureLink shall not be liable for any claim made by a third party or made by the purchaser for a third party.

Except as expressly set forth in this warranty, PureLink makes no other warranties, expressed or implied, including any implied warranties of merchantability and fitness for a particular purpose. PureLink expressly disclaims all warranties not satisfied in this limited warranty. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

#### **WARRANTY RETURNS/REPAIRS/EXCHANGES**

No merchandise may be returned without prior authorization from PureLink, and a Return Materials Authorization (RMA) number. Failure to comply with these conditions will result in rejection of the returned merchandise.

Any warranty service on Products must be arranged through Dealer. Authorized returns must be shipped freight prepaid and fully insured to PureLink, Ramsey, NJ USA, with the RMA number clearly marked on the outside of all shipping boxes and containers. PureLink reserves the right at its sole discretion to refuse any shipments arriving freight collect or without an RMA number. Any authorized returned merchandise must be accompanied by a note describing the reason for return, along with contact information including name, phone number, return mailing and shipping addresses, e-mail address, and RMA number.

On any products returned and accepted with an RMA number, return freight charges following repair of items under warranty shall be paid by PureLink, shipping by the standard ground carrier of its choice.

#### **ADVANCE WARRANTY REPLACEMENTS**

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PureLink's advance replacement service offers a Replacement Unit upon request - free of charge for eligible products purchased less than one (1) year of the warranty claim. Products purchased more than one (1) year prior to the warranty claim do not qualify for advance replacement services.

Advance replacement requests must be validated by a member of PureLink's Technical Support Team. Replacement units may be new or refurbished and is subject to availability. PureLink is responsible for shipping the Replacement Unit to your designated location by standard ground service. All other shipping methods will be responsibility of the Dealer.

**Original Unit Return** – the Original Unit must be returned within thirty (30) calendar days of the return authorization date. Failure to return the Original Unit within this period will be subject to a minimum 15% re-stocking fee. Dealer is solely responsible for the shipping of the Original Unit to PureLink.

### **TO MAKE A WARRANTY CLAIM**

To make a warranty claim, promptly notify PureLink within the warranty periods described above by calling PureLink's Technical Support Department at 1-201-488-3232. PureLink, in its sole discretion, will determine what action, if any, is required under this warranty.

Most problems can be corrected over the phone through close cooperation between Customer and a PureLink technician. To better enable PureLink to address a warranty claim, please have the Product's serial and model numbers. If PureLink, in its sole discretion, determines that an on-site visit or other remedial action is necessary, PureLink may send a representative to Customer's site.

### **CUSTOMER SERVICE**

Technical support inquiries can be submitted electronically through the PureLink website at [www.purelinkav.com](http://www.purelinkav.com). For immediate assistance please contact PureLink's Customer Care Team at

+1 (201) 488-3232