HCAM26 Wi-Fi HaLow IP Camera

Quick Start Guide

Version: 1.3

Table of Contents

Revision History:

No.	Description	Date
V1.0	First release	Jul. 17, 2024
V1.1	Added description for USB Ethernet video streaming	Aug. 20, 2024
V1.2	Added a section for SSH login of the device	Oct. 9, 2024
V1.3	Replaced the command method with a UI-based web for HaLow connection	Apr. 1, 2025

Foreword

Vantron HCAM26 Wi-Fi HaLow IP camera is designed for building security or public surveillance applications. It integrates VT-MOB-AH-L, a self-developed Wi-Fi HaLow module that complies with the prominent sub-1GHz IEEE 802.11ah (Wi-Fi HaLow) standard. The camera operates in HaLow station mode and is typically designed to pair with a Wi-Fi HaLow access point such as Vantron HAP101 or HAP103 to ensure long-distance, reliable Wi-Fi HaLow connectivity.

Users can access the video stream captured by HCAM26 through two methods, depending on the connection between the host computer and the camera:

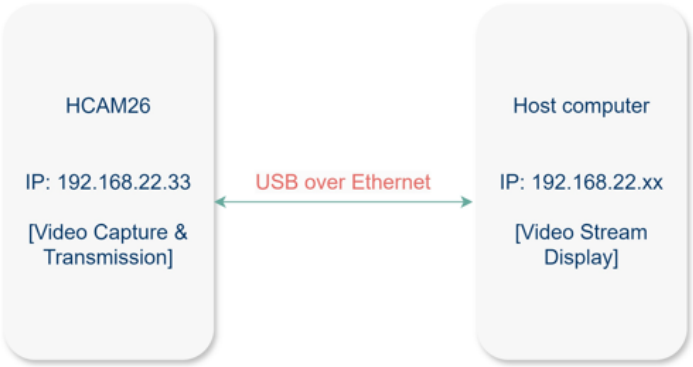
1. **USB Ethernet Connection (Short-Distance Scenario)**:

   Connect the camera directly to a host computer via USB Ethernet.

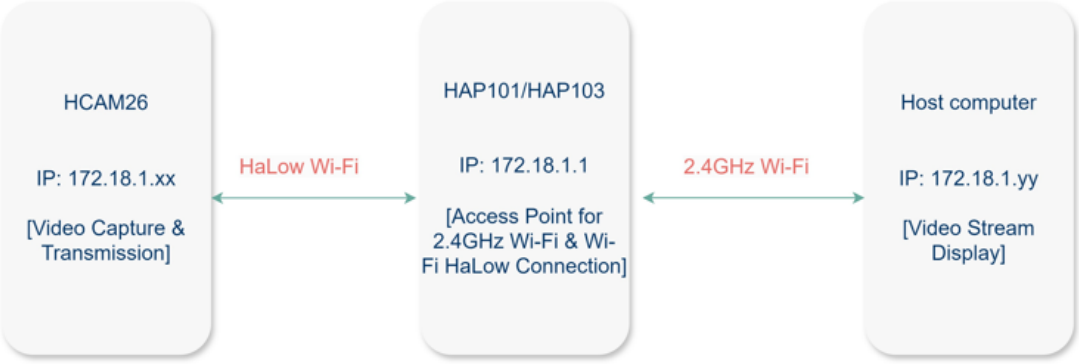
2. **Wi-Fi HaLow Connection (Long-Distance Scenario)**:

   Connect the camera to a Wi-Fi HaLow access point (e.g., Vantron HAP101 or HAP103) via Wi-Fi HaLow; connect the host computer to the same access point via 2.4GHz Wi-Fi.

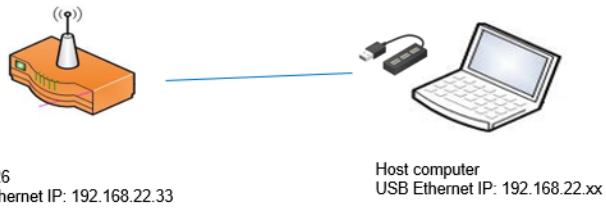
Scenario I: USB Ethernet Connection



Scenario II: Wi-Fi HaLow Connection



1. USB Ethernet Connection



1.1 Prerequisites

- HCAM26 HaLow IP camera
- Windows host computer
- USB Type-A to Type-C cable
- HCAM26 and the host computer are on the same network

1.2 Device Setup

1. Briefly press the **Power** button on HCAM26 to turn it on, and the **PWR** indicator will turn solid green upon device bootup;

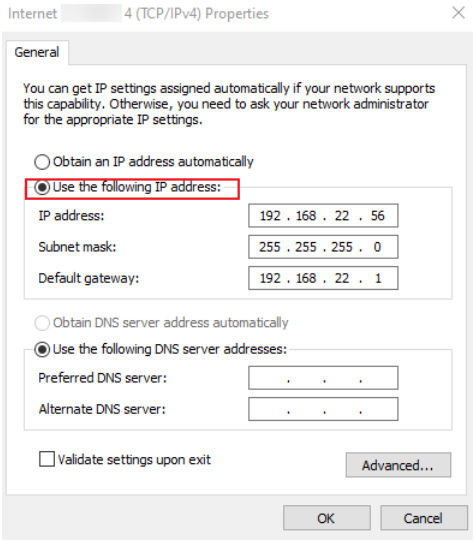
If the PWR indicator remains off, the camera may have a low battery. Try connecting it to the host computer using a USB cable and pressing the power button again.

2. Connect the camera to the host computer using a USB Type-A to Type-C cable;

If you intend to connect more than one camera to the host computer, a USB hub is recommended.

3. Open the **Network and Internet Settings** from the task bar;
4. Click **Ethernet/Wi-Fi** and select **Change adapter options**;
5. Identify the USB network adapter associated with HCAM26. It might be labeled with a name like "USB Ethernet Adapter" or similar;
6. Right-click the USB network adapter and select the **Properties** option;
7. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**;

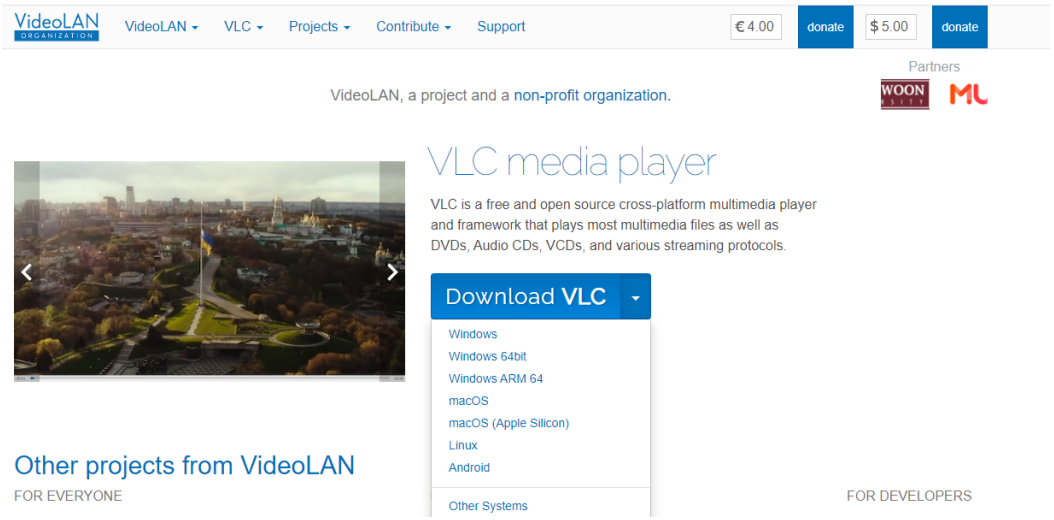
8. Manually assign an IP address for the USB Ethernet adapter that is within the same IP segment as HCAM26 (provided on the product label);



9. Click **OK** to exit.

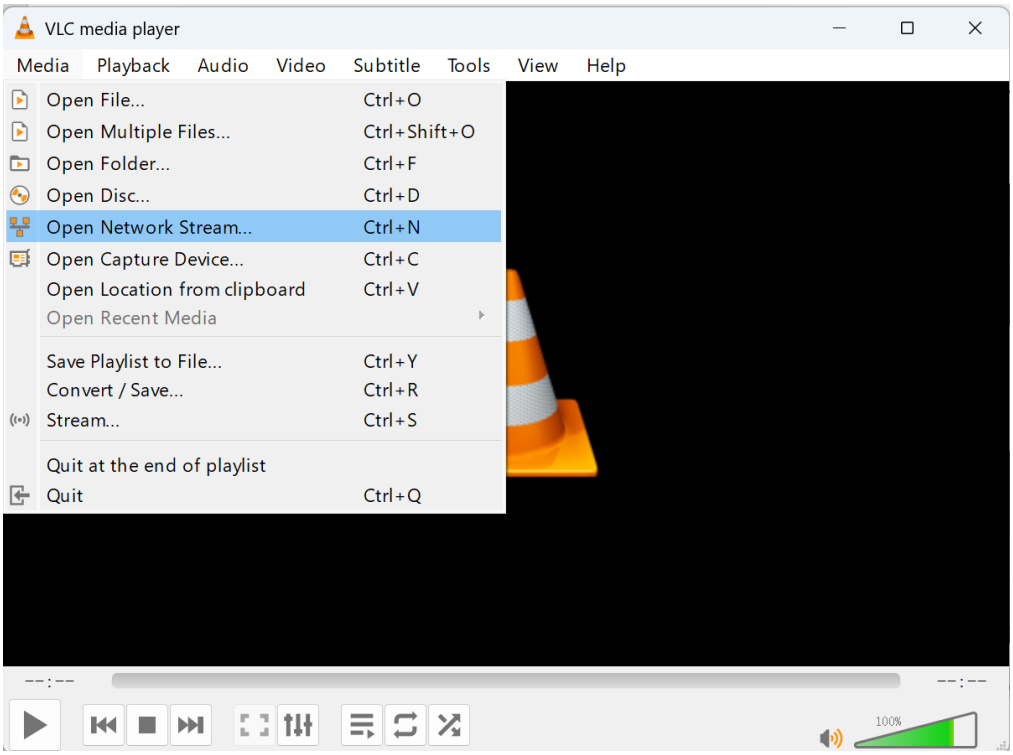
1.3 Real-time Video Streaming

1. Make sure you have set up the USB Ethernet IP of the host computer as instructed in the prior section;
2. Download a media player for Windows, such as VLC media player;



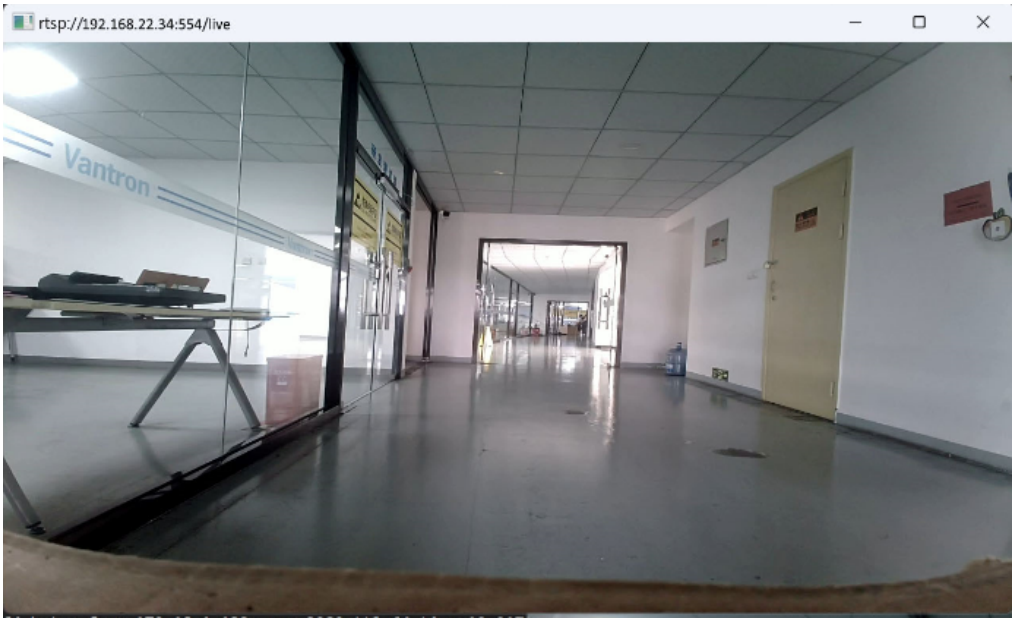
3. Double click the program to install the media player;
4. Grant necessary permissions and run the media player;

5. Open the video streaming window (**Media > Open Network Stream**);

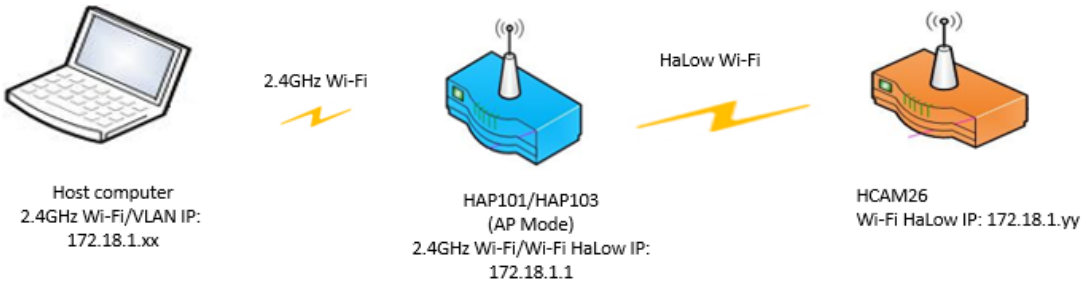


6. Enter the camera's RTSP URL (rtsp://cameral IP:554/live/video_stream);

7. Click **Play**, and you'll be able to view the live video on the host computer.



2. Wi-Fi HaLow Connection



2.1 Prerequisites

- An HCAM26 HaLow IP camera
- A Wi-Fi HaLow access point (e.g. Vantron HAP101/HAP103)
- A USB Type-A to Type-C cable
- A Windows computer
- HCAM26 and the host computer are on the same USB Ethernet IP segment for connecting HCAM26 to HAP101/HAP103 via HaLow
- The Wi-Fi HaLow access point, HCAM26, and the host computer are on the same Wi-Fi (2.4GHz Wi-Fi/Wi-Fi HaLow) IP segment for viewing the video stream on the host computer

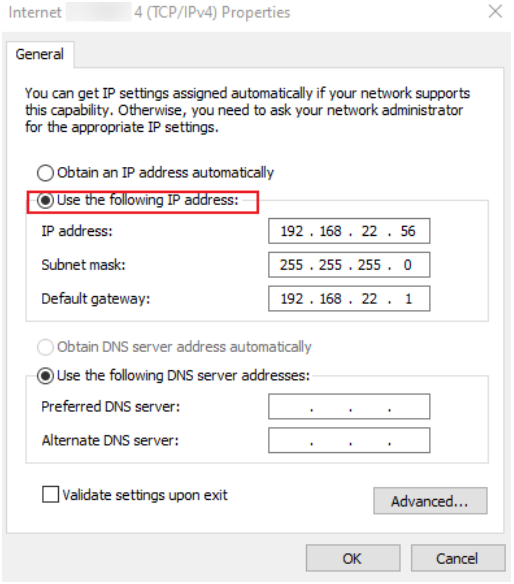
2.2 Device Setup

2.2.1 Manually assign an IP to the USB Ethernet adapter

1. Briefly press the **Power** button on HCAM26 to turn it on, and the **PWR** indicator will turn solid green upon device bootup;

   If the PWR indicator remains off, the camera may have a low battery. Try connecting it to the host computer using a USB cable and pressing the power button again.

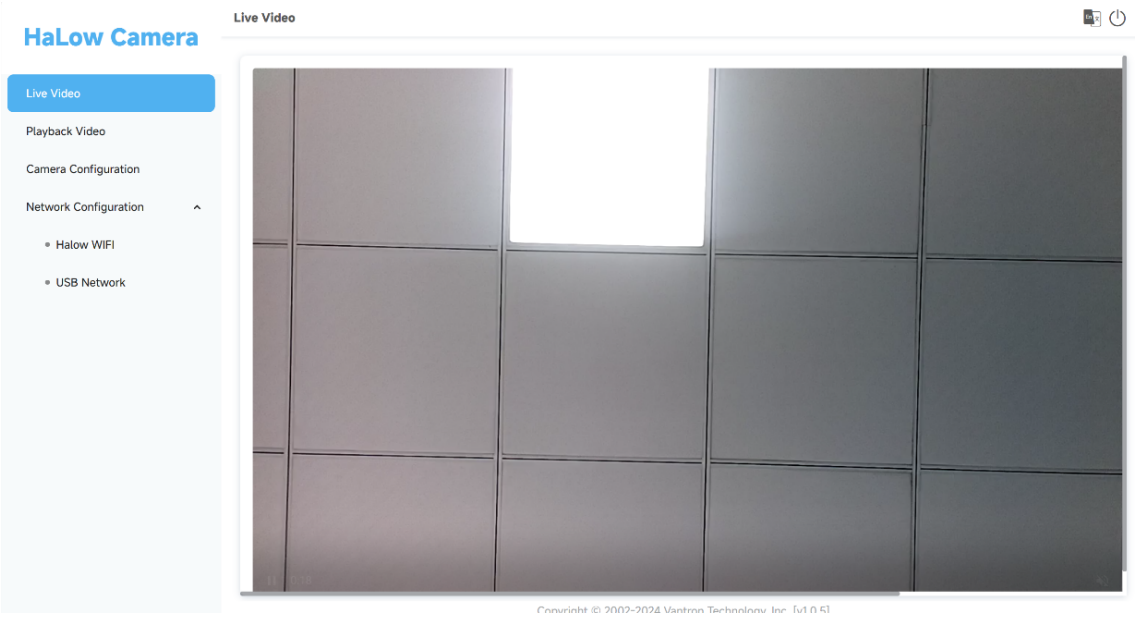
2. Connect the camera to the host computer using a USB Type-A to Type-C cable;
3. Open the **Network and Internet Settings** from the task bar;
4. Click **Ethernet/Wi-Fi** and select **Change adapter options**;
5. Identify the USB network adapter associated with HCAM26. It might be labeled with a name like "USB Ethernet Adapter" or similar;
6. Right-click the USB network adapter and select the **Properties** option;
7. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**;
8. Manually assign an IP address for the USB Ethernet adapter that is within the same IP segment as HCAM26 (provided on the product label);



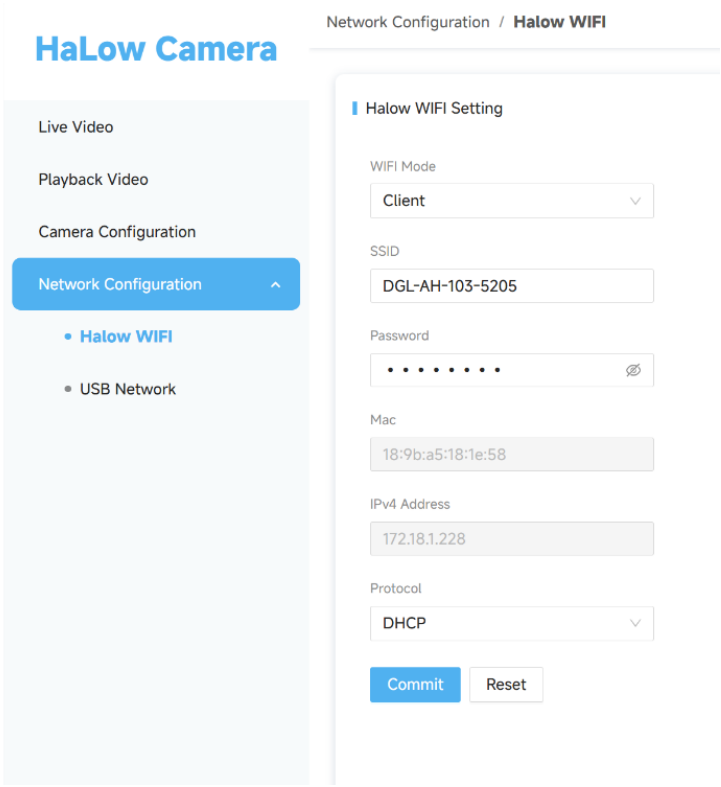
9. Click **OK** to exit.

2.2.2 Connect the camera to a HaLow access point

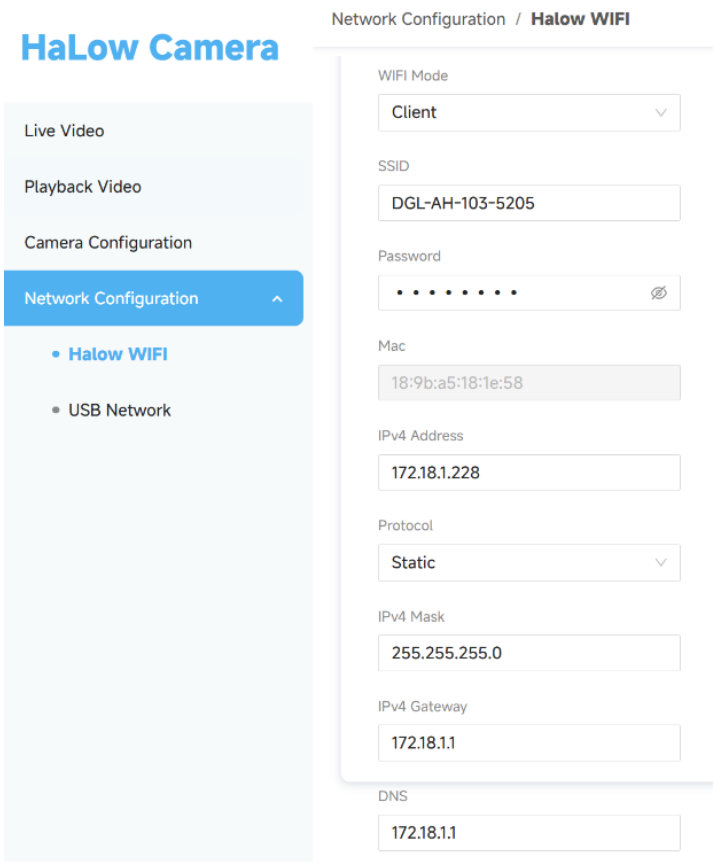
1. Keep HCAM26 connected to the host computer, with the USB Ethernet adapter on the same IP segment as HCAM26;
2. Enter HCAM26's IP address (on the device label) in your browser's address bar and press **Enter** to access the configuration portal;



3. In the configuration portal, navigate to **Network Configuration > Halow Wi-Fi** to configure HCAM26 for connecting to a HaLow access point (e.g., Vantron HAP101/HAP103) via HaLow;
   - Make sure HCAM26 is set to the **Client** mode;
   - Make sure the HaLow access point is operating in the **AP** mode (refer to the user manual of the access point for switching the modes, if needed)
   - Enter the HaLow SSID and password (on the device label) of the access point;
   - Select an IP protocol from the drop-down list;
     - DHCP: Automatic IP allocation
     - Static: Manual IP assignment (ensure the camera's IP is on the same IP segment as the HaLow access point)



(DHCP protocol)



(Static Protocol)

4. Click **Commit** to complete the settings.

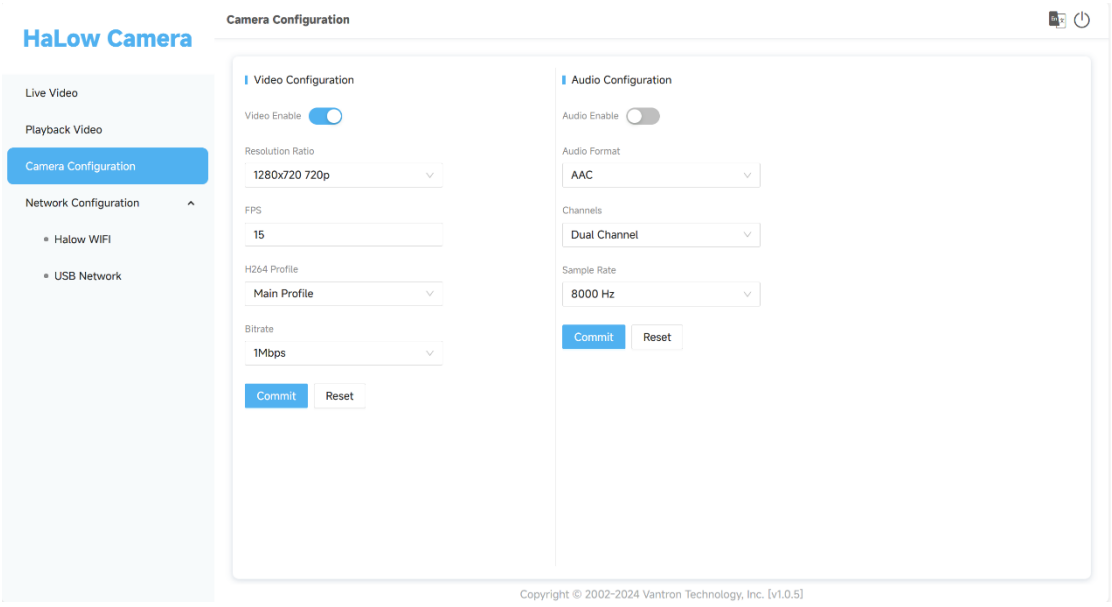
After connecting HCAM26 to the HaLow access point via Wi-Fi HaLow, you can access the camera's configuration portal from a host computer that is on the same IP segment as the camera using either of the following IPs:

- **USB IP** of HCAM26, when HCAM26 is connected to the host computer via a USB cable (refer to 2.2.1 for details);
- **Wi-Fi HaLow IP** of HCAM26, when the host computer is connected to the HaLow access point via 2.4GHz Wi-Fi (refer to 2.3 for details).

2.2.3 Video setting adjustment

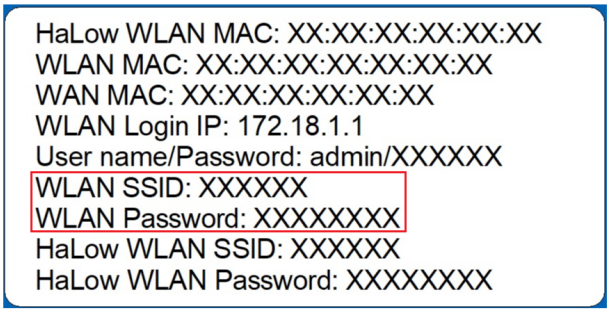
When HCAM26 is located far from the HaLow access point, causing video streaming to become intermittent, you can adjust the resolution or other parameters to improve the video quality.

1. Access HCAM26's configuration portal, using its USB IP or Wi-Fi HaLow IP depending on the connection of the host computer;
2. Navigate to **Camera Configuration**;
3. Lower the resolution, FPS, or bitrate as needed until the video streaming becomes smooth;
4. Click **Commit** to confirm the settings.

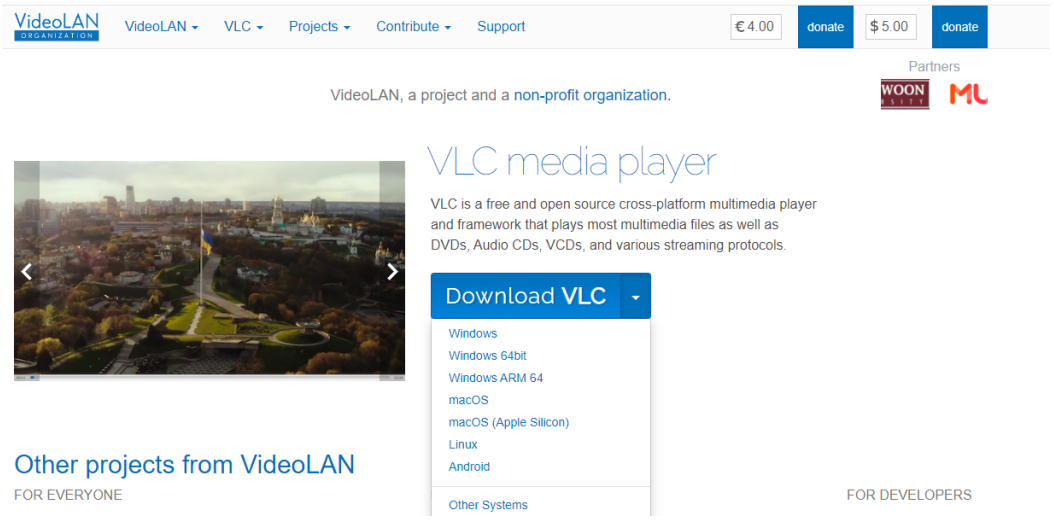


2.3 Real-time Video Streaming

1. Make sure the camera is powered on and connected to the Wi-Fi HaLow access point as set out in 2.2;
2. Connect the host computer to the Wi-Fi HaLow access point via the 2.4GHz Wi-Fi using the SSID and password provided on the product label of the access point;

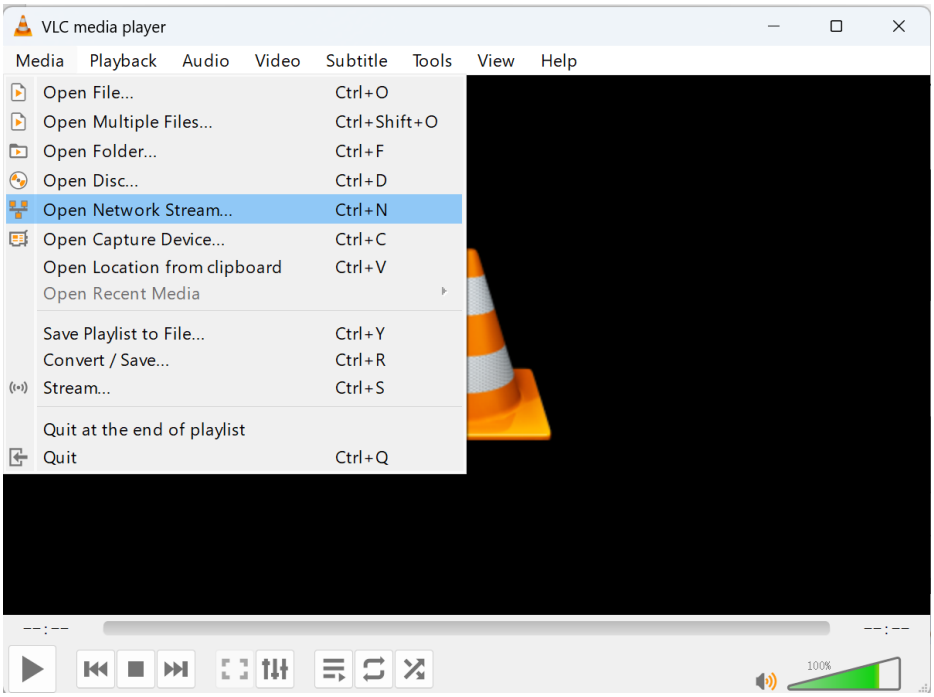


3. Make sure the camera, the HaLow AP, and the host computer are on the same IP segment;
4. Download a media player for Windows, such as VLC media player;

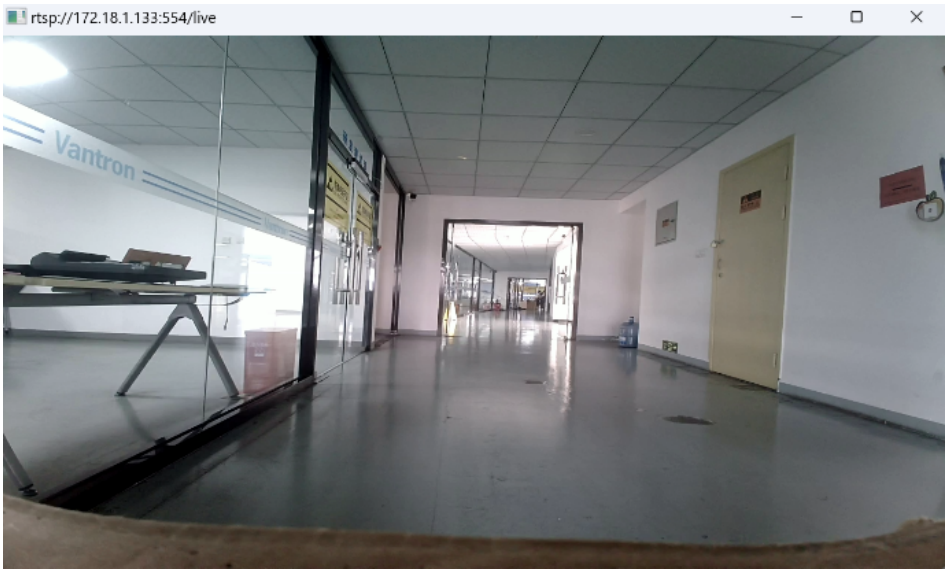


5. Double click the program to install the media player;
6. Grant necessary permissions and run the media player;

7. Open the video streaming window (**Media > Open Network Stream**);



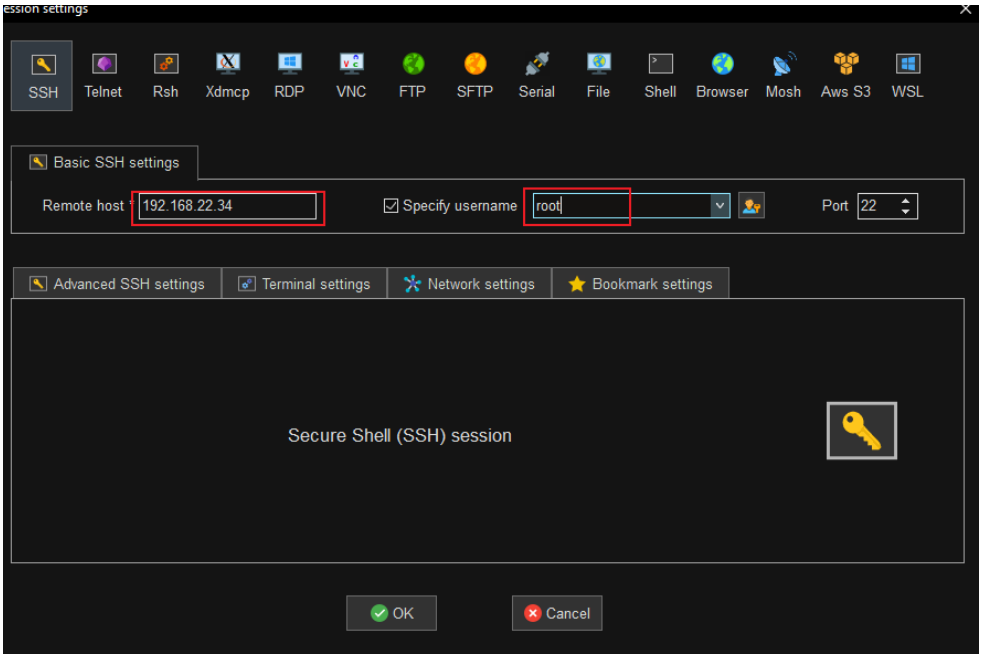
8. Enter the camera's RTSP URL (rtsp://cameral IP:554/live/video_stream);
9. Click **Play**, and you'll be able to view the live video on the host computer.



3. SSH Login

If you need to debug the camera on a Windows host computer, follow the steps below for SSH login.

1. Open a terminal emulator (e.g., MobaXterm);
2. Launch an SSH session using the Ethernet IP of the camera provided on the device label;



3. After you successfully enter the shell of the camera, you will be able to further configure the device.