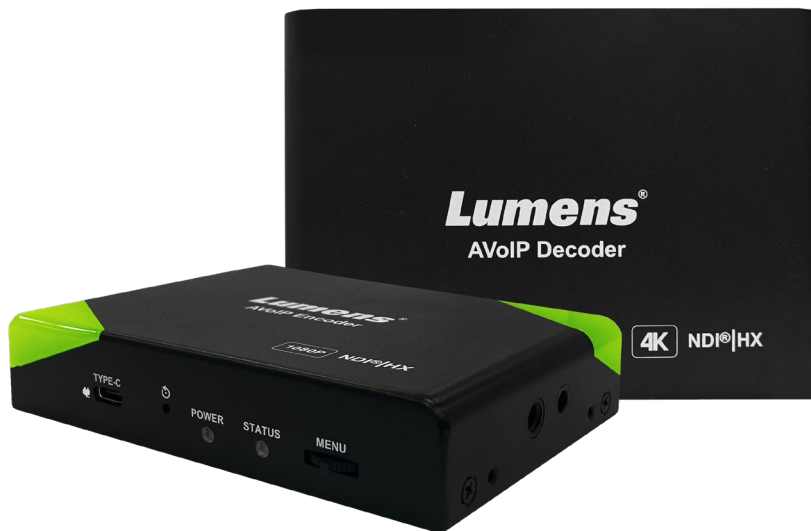# OIP-N40E/ OIP-N40E, Dante AV-H Bridge
OIP-N60D/ OIP-N60D, Dante AV-H Bridge

User Manual - English

[Important]

> To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens
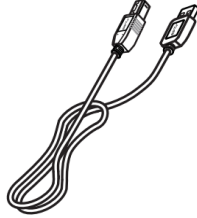> https://www.MyLumens.com/support

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Table of Contents

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Chapter 1   Package Contents

OIP Bridge	USB 2.0 cable (1.8 M) (Type A Type C)	Locking metal plate (x2)
M3 metal plate screw (4x4)		
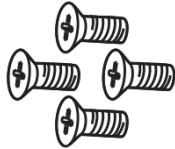
Chapter 2   Product Installation

2.1   I/O Interface

OIP-N40E
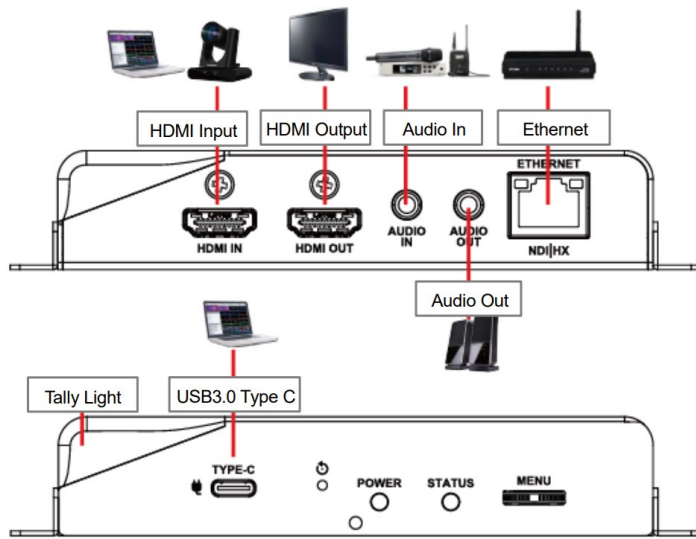
OIP-N60D
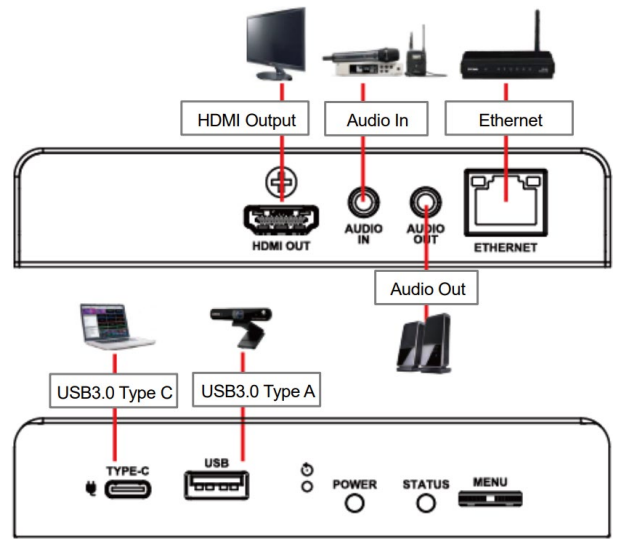
Note USB-C cables are recommended to have a transmission speed specification of 10Gbps or higher

2.2   Product Installation

- Using the accessory metal plates

1. Lock the accessory metal plate with screws (M3 x 4) to the lock holes on both sides of the OIP Bridge

2. Install the metal plate and OIP-N40E on the table or cabinet according to the spatial area
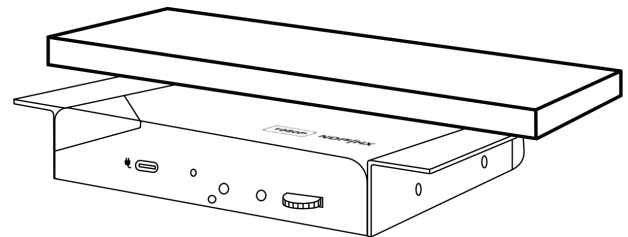
- Use tripod

The camera can be mounted on a 1/4"-20 UNC PTZ tripod deck by using the lock holes on the side for the tripod of OIP-N40E
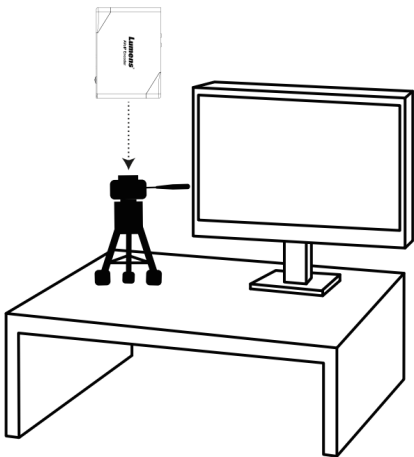
2.3 Description of Indicator Display

Power Status	Tally Status	Power	Standby	Tally
Startup in progress (initialization)	-	Red light	-	Flickering Red/Green light
In use	Signal	Red light	Green light	-
	No Signal			-
	Preview			Green light
	Program			Red light

Chapter 3   Product Operation

3.1   Operate through the body button

Connect the HDMI OUT to the display, press the Menu dial to enter the OSD menu. Through the Menu dial to navigate the menu and adjust the parameters

- Rotate: Adjust parameters and
  Navigate in the menu
- Press: Enter/ Confirm
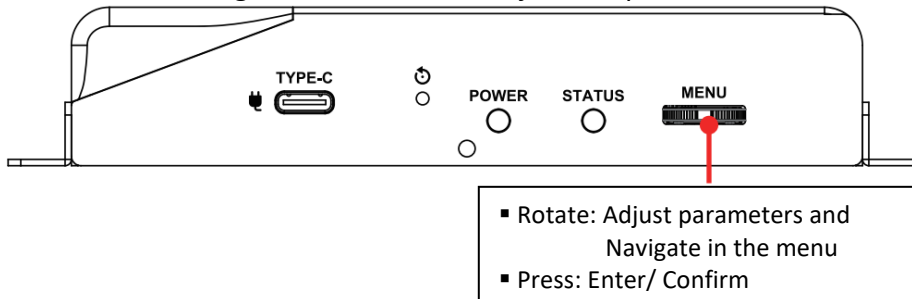
3.2   Operate via webpages

(1) Confirm the IP address

Refer to 3.1 Operate through the body button, confirm the IP address in Status (If the OIP-N40E is directly connected to the computer, the default IP is 192.168.100.100. You need to manually set the computer's IP address in the same network segment.)

Encode	Input	Network	Status
IP Address :		192.168.4.147	
Netmask :		255.255.255.0	
Gateway :		192.168.4.254	
MAC ID :		dc:e2:ac:03:50:3	
HDMI Output :			
FW Version :		0IA0.00k	
			Exit

(2) Open the browser and input the IP address, e.g. 192.168.4.147, to access the login interface.

192.168.4.147

(3) Please enter the account/password to log in

- **Account：admin**
- **Password：9999**

# Chapter 4   Product Application and Connection

4.1   HDMI Signal Source Transmission Network (For OIP-N40E)

OIP-N40E can transmit HDMI signal source to IP devices

Note: When using a USB connection to the OIP, a USB 3.1 Gen2 (10Gbps) cable is required.

(1) Connection Method
- Connect the signal source device to the OIP-N40E HDMI or USB-C input port using HDMI or USB-C monitor transmission cable
- Connect the OIP-N40E and computer to the network switch using network cable
- Connect the OIP-N40E HDMI OUT to the display using HDMI cable
- Connect the HDMI signal source to the OIP-N40E HDMI IN, which can capture and synchronize the signal source to the display (Pass-through)
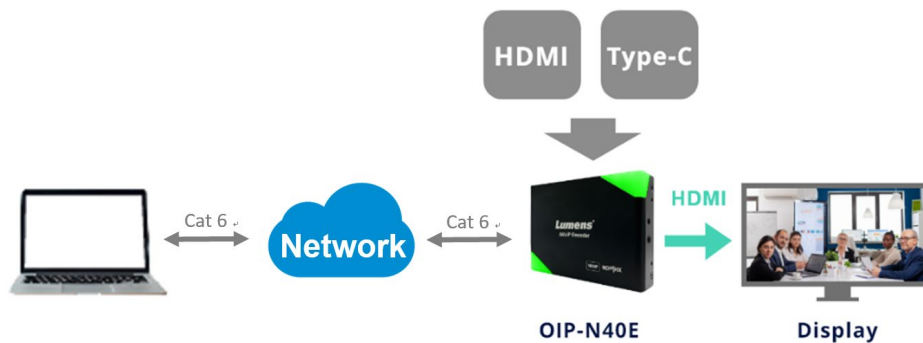
(2) Webpage Settings

[Stream] > [Source] to select the output signal > [Stream Type] > [Apply]

(3) Streaming Output

Open streaming media platforms such as VLC, OBS, NDI Studio Monitor, etc., for streaming output

4.2   Virtual USB Network Camera (For OIP-N60D)

OIP-N60D can convert IP signal source into USB (UVC) for seamless integration with video conferencing platforms.

Note: When using a USB connection to the OIP, a USB 3.1 Gen2 (10Gbps) cable is required.

(1) Connection Method
- Connect the OIP-N60D to LAN
- Connect the computer to the OIP-N60D using USB-C 3.0 cable
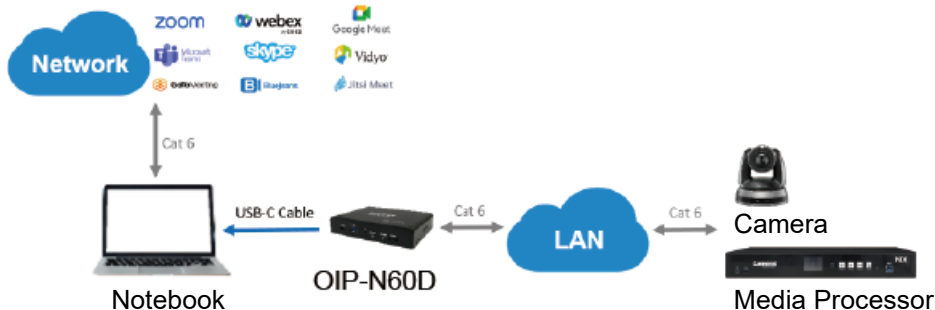
(2) Webpage Settings
- [System] > [Output], open Virtual USB Setting
- [Source] > [Search new Source] > Select the desired output device > Click [Play] to output device signal source

(3) USB Camera Screen Output
- Launch a video software like Skype, Zoom, Microsoft Teams, or other similar software

- Choose the video source, to output USB network camera images
 - `Note` Source Name: Lumens OIP-N60D

4.3 USB Network Camera Extension (OIP-N40E/OIP-N60D required)

When used with the OIP Bridge, it can extend the range of USB cameras through the network to improve installation flexibility.

Note: When using a USB connection to the OIP, a USB 3.1 Gen2 (10Gbps) cable is required.

(1) Connection Method
- Connect the OIP Bridge to the local network
- Connect the USB camera to the OIP-N60D using USB-A cable
- Connect the monitor to the OIP-N60D using HDMI cable
- Connect the computer to the OIP-N40E using USB-C monitor transmission cable
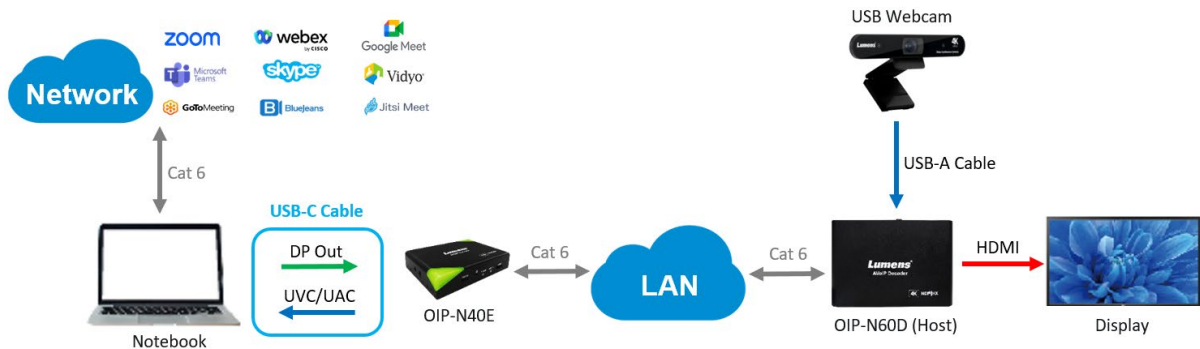
Note
- Computers can use USB-C to connect to OIP-N40E and use USB network camera
- Computers can project images onto a TV through a USB-C connection to OIP-N40E

(2) OIP-N60D Webpage Settings
   [System] > [Output], open USB Extender
(3) OIP-N40E Webpage Settings
- [System] > [Output] > Extender Source List
- [Search new Source] > Click [Available] to select the OIP-N60D > Connection displays Connected
(4) USB Camera Screen Output
- Launch a video software like Skype, Zoom, Microsoft Teams, or other similar software
- Choose the video source, to output USB camera images
  - `Note` Source Name: Select according to the USB Camera ID

Chapter 5   Setting Menu

Through body button **[Menu]** to enter the setting menu; the **bold underlined** values in the following table are defaults.

5.1   OIP-N40E

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Encode	Stream Type	**NDI**/ SRT/ RTMP/ RTMPS/ HLS/ MPEG-TS over UDP/ RTSP	Select the stream type
Input	HDMI-in From	**HDMI**/ USB	Select the HDMI-in source
Network	IP Mode	Static/ **DHCP**/ Auto	Dynamic Host Configuration
	IP Address	**192.168.100.100**	Configurable when set to *Static*
	Subnet mask (Netmask)	**255.255.255.0**	
	Gateway	**192.168.100.254**	
Status	-	-	Display the current machine status

5.2   OIP-N60D

| 1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Source	Source List	-	Display the signal source list
	Blank Screen	-	Display black screen
	Scan	-	Update the signal source list
Output	HDMI Audio From	**Off**/ AUX/ HDMI	Select the HDMI audio source
	Audio Out From	**Off**/ AUX/ HDMI	Select where audio outputs
	HDMI Output	By Pass **Native EDID** 4K@60/ 59.94/ 50/ 30/ 29.97/ 25 1080p@60/ 59.94/ 50/ 30/ 29.97/ 25 720p@60/ 59.94/ 50/ 30/ 29.97/ 25	Select the HDMI output resolution
Network	IP Mode	Static/ **DHCP**/ Auto	Dynamic Host Configuration
	IP Address	**192.168.100.200**	Configurable when set to *Static*
	Subnet mask (Netmask)	**255.255.255.0**	
	Gateway	**192.168.100.254**	
Status			Display the current machine status

Chapter 6   Webpage Interface

6.1   Connecting to Internet

Two common connection methods are shown below
1. Connecting via switch or router

Network cable   Network cable

OIP Bridge   Switch or router   Computer

2. To connect directly through network cable, the IP address of the keyboard/computer should be changed and set as the same network segment
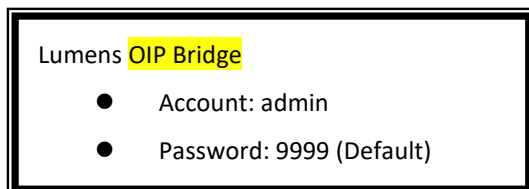
Network cable

OIP Bridge   Computer
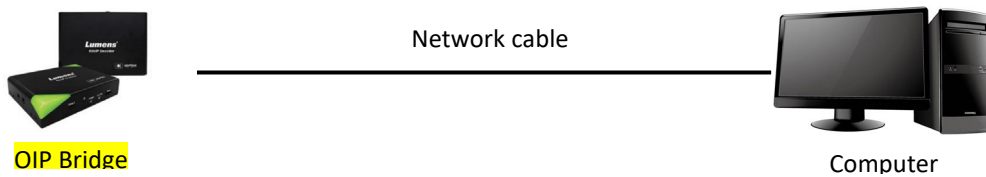
6.2   Log in to the webpage

1. Open the browser, and enter the URL of OIP-N in the IP address bar

   E.g.: http://192.168.4.147
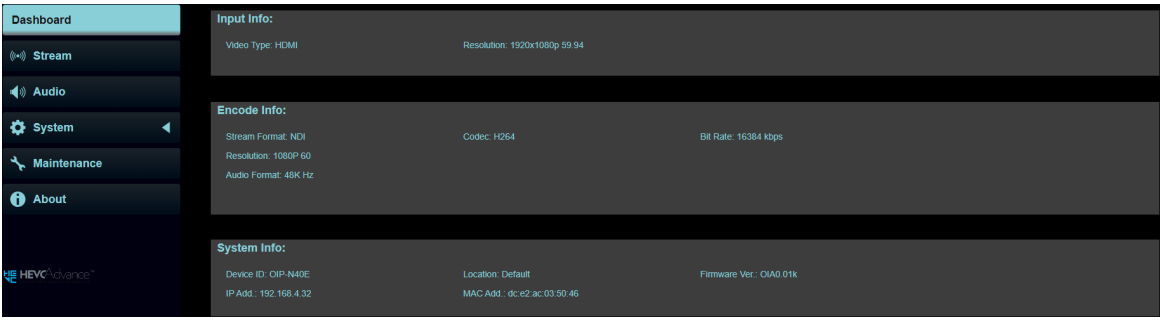
2. Enter administrator's account and password

   Note   For a first-time login, please refer to **6.1.10 System- User** to change the default password

   Lumens OIP Bridge
   - Account: admin
   - Password: 9999 (Default)

6.3 Webpage Menu Description

6.3.1 Dashboard
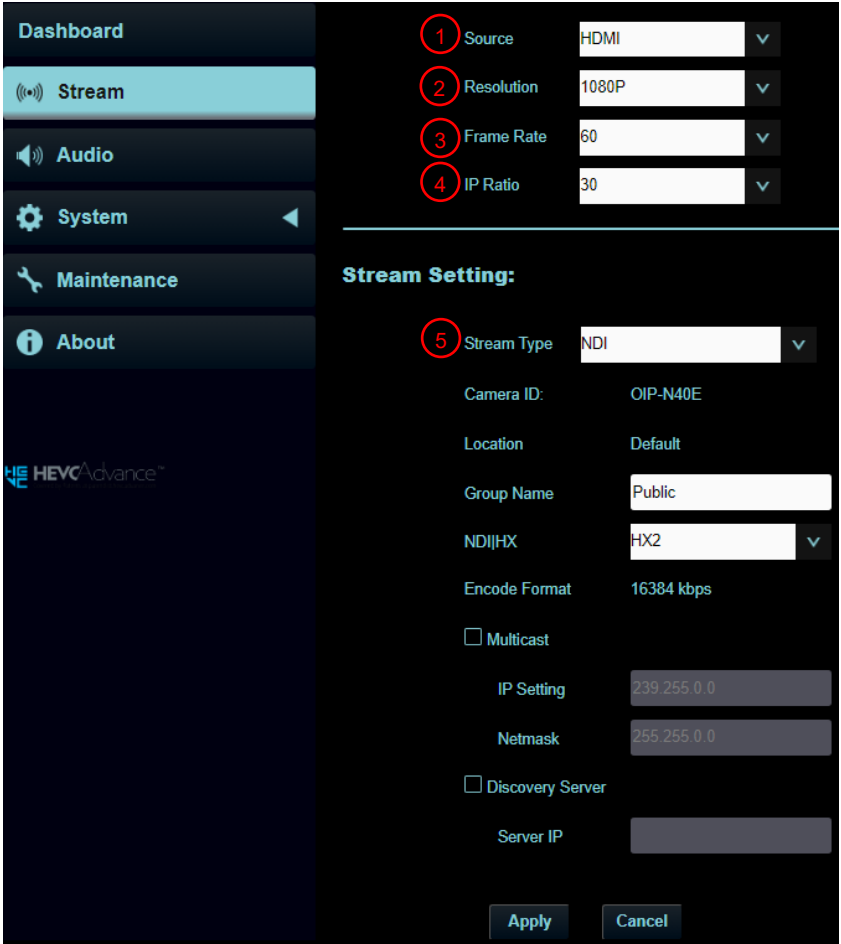
Function Descriptions
Display output/input, encode/decode, and system-related information

6.3.2 Stream (Applicable to OIP-N40E)
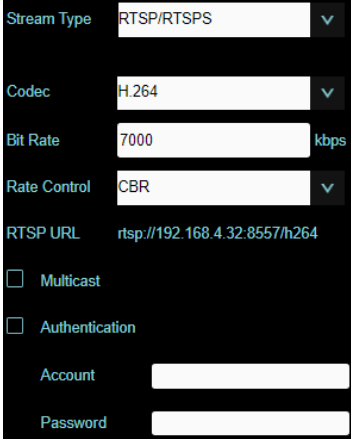
No	Item	Description
1	Source	Choose the signal source
2	Resolution	Set output resolution
3	Frame Rate	Set frame rate
4	IP Ratio	Set IP Ratio
5	Stream Type	Select the stream type and make relevant settings based on the stream type
6	NDI	▪ Camera ID/Location: Name/Location display according to System Output settings

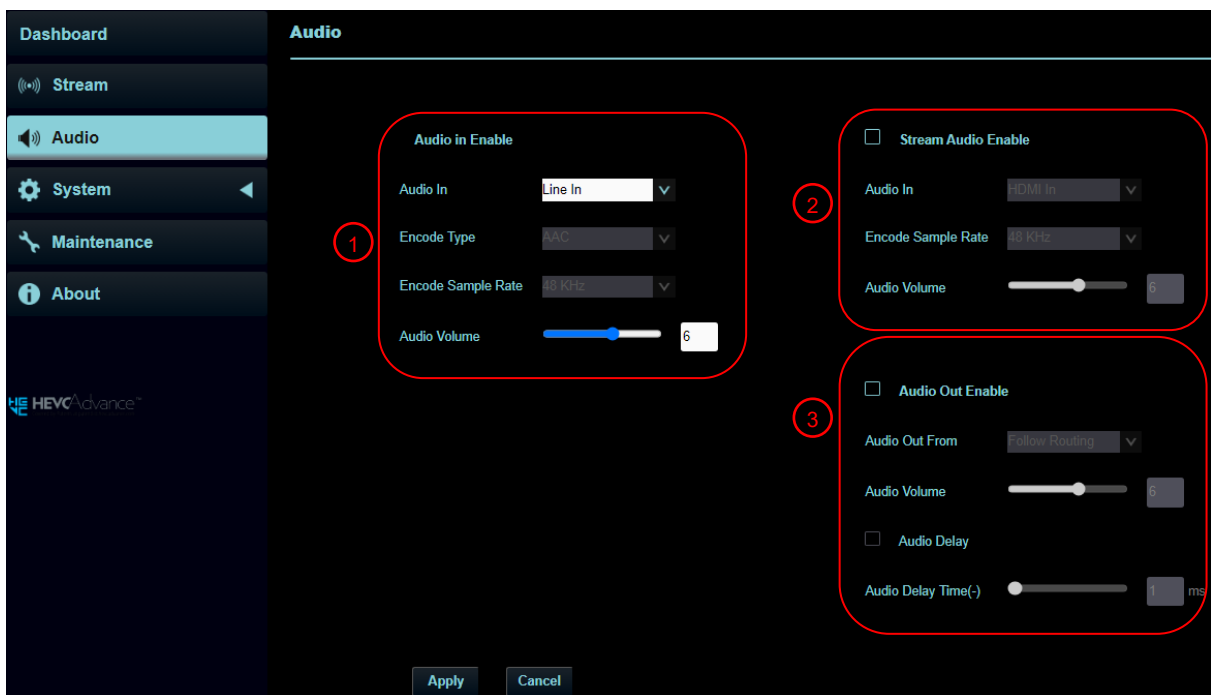|		
		▪ Group Name: The group name can be modified here and set with Access Manager - Receive in NDI Tool ▪ NDI|HX: HX2/HX3 is supported ▪ Multicast: Enable/Disable Multicast [Note] It is suggested to enable Multicast when the number of users online watching the live image simultaneously is more than 4 ▪ Discovery Server: Discovery service. Check to enter the Server IP address
6.1	RTSP/ RTSPS	Stream Type RTSP/RTSPS ⌄ Codec H.264 ⌄ Bit Rate 7000 kbps Rate Control CBR ⌄ RTSP URL rtsp://192.168.4.32:8557/h264 ☐ Multicast ☐ Authentication 　Account [ ] 　Password [ ] ▪ Code (Encode Format): H.264/HEVC ▪ Bit Rate: Setting range 2,000 ~ 20,000 kbps ▪ Rate Control: CBR/VBR ▪ Multicast: Enable/Disable Multicast [Note] It is suggested to enable Multicast when the number of users online watching the live image simultaneously is more than 4 ▪ Authentication: Enable/Disable Username/Password Authentication The username/password is the same as the webpage login password, please refer to **6.1.10 System- User** to add/modify account information

6.3.3 Stream (Applicable to OIP-N60D)
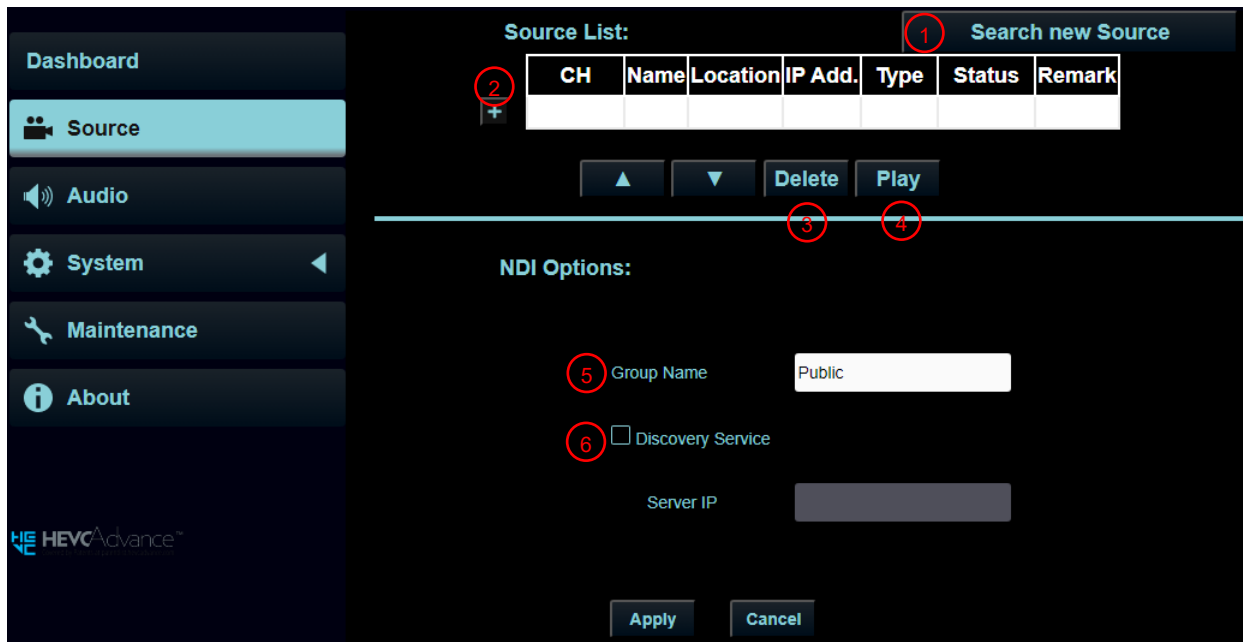
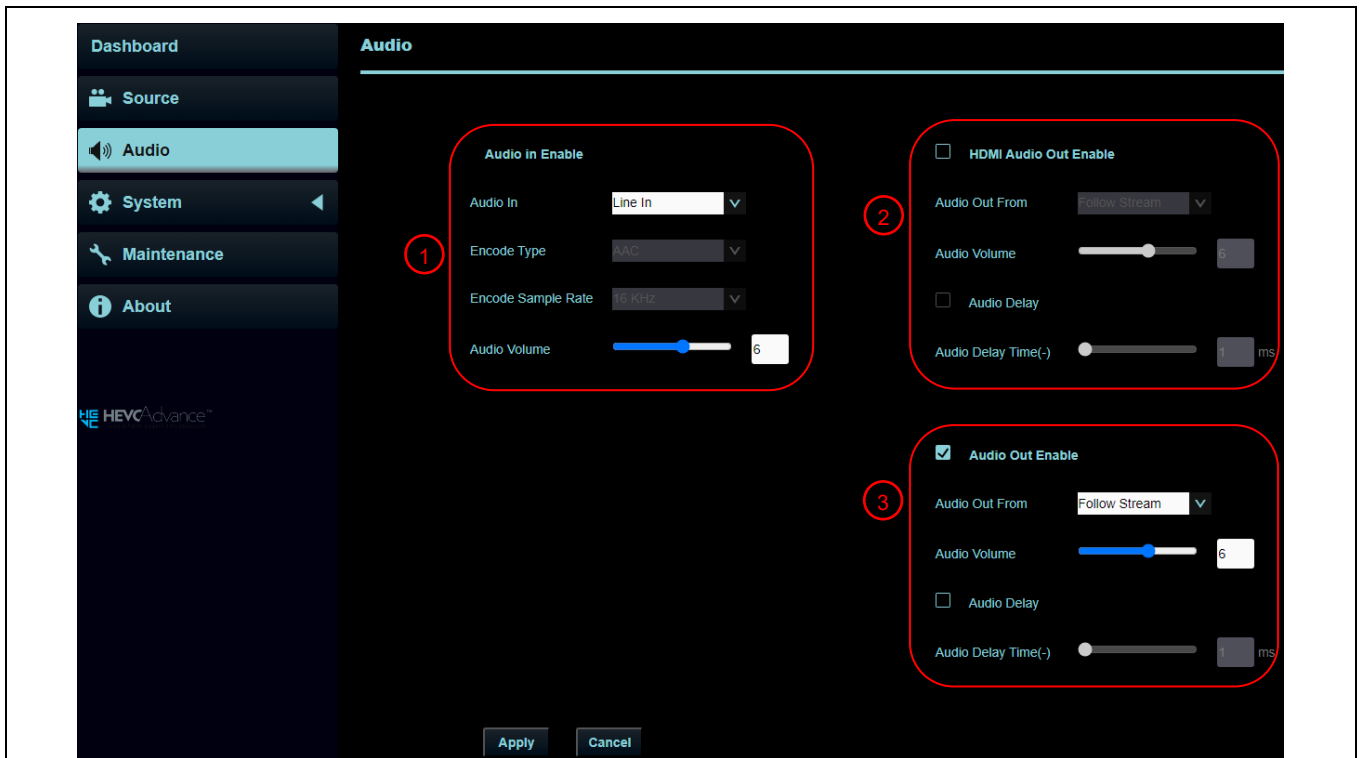| No	Item	Description
1	Search New Source	Click to search for devices in the same network segment and display them in a list
2	+Add	Manual adding device
3	Delete	Check the device, click to delete
4	Play	Check the device, click to play
5	Group Name	The group name can be modified here and set with Access Manager - Receive in NDI Tool
6	Server IP	Discovery service. Check to enter the Server IP address

6.3.4 Audio (Applicable to OIP-N40E)

No	Item	Description
1	Audio In Enable	▪ Audio In: Enable/disable audio

3		▪ Encode Type: Encode Type AAC ▪ Encode Sample Rate: Set Encode sample rate ▪ Audio Volume: Volume adjustment
2	Stream Audio Enable	▪ Audio In: Enable/disable audio ▪ Encode Sample Rate: Set Encode sample rate ▪ Audio Volume: Volume adjustment
3	Audio Out Enable	▪ Audio Out From ▪ Audio Volume: Volume adjustment ▪ Audio Delay: Enable/disable Audio Delay, set the audio delay time (-1 ~ -500 ms) after enabling

6.3.5 Audio (Applicable to OIP-N60D)

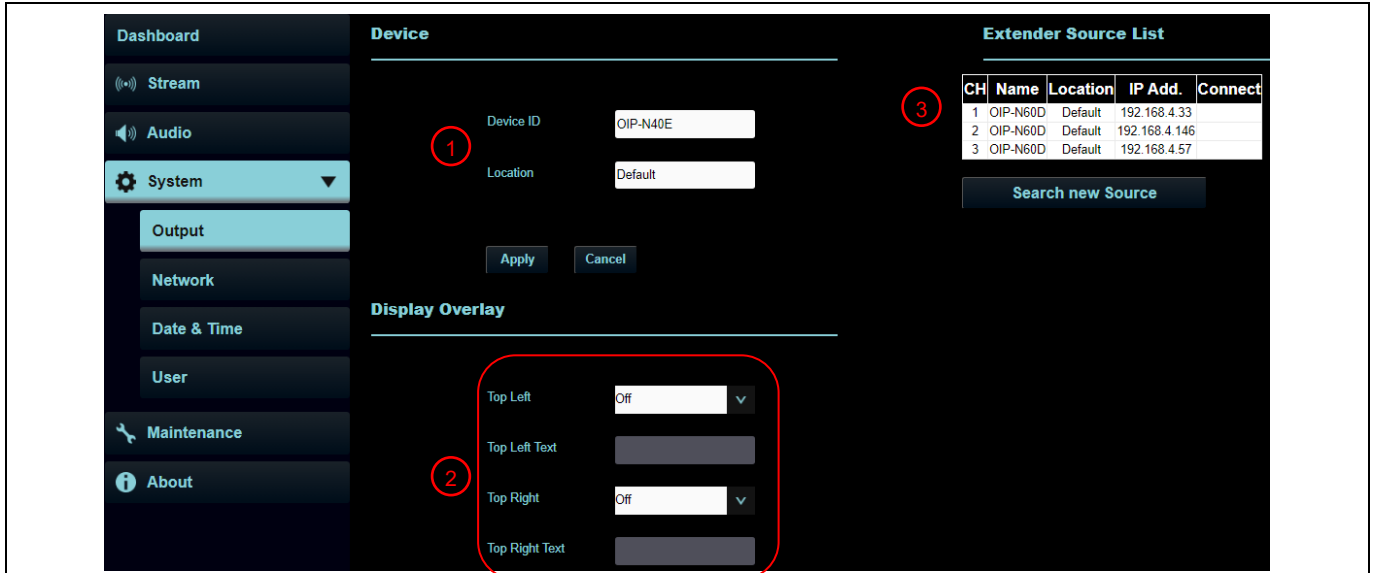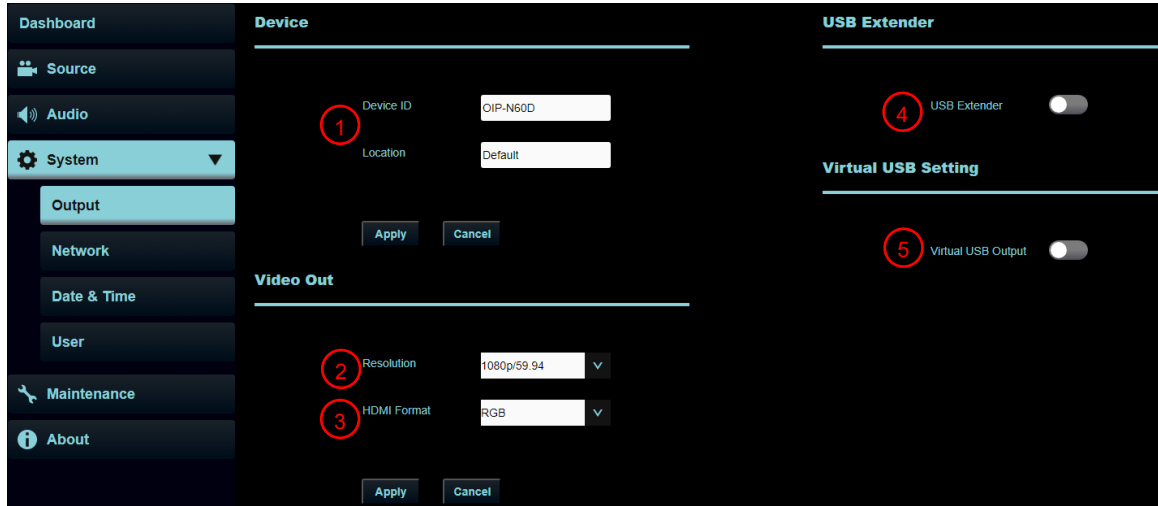| No	Item	Description
1	Audio In Enable	▪ Audio In: Enable/disable audio ▪ Encode Type: Encode Type AAC ▪ Encode Sample Rate: Set Encode sample rate ▪ Audio Volume: Volume adjustment
2	HDMI Audio Out Enable	▪ Audio Out From: Audio output source ▪ Audio Volume: Volume adjustment ▪ Audio Delay: Enable/disable Audio Delay, set the audio delay time (-1 ~ -500 ms) after enabling
3	Audio Out Enable	▪ Audio Out From: Audio output source ▪ Audio Volume: Volume adjustment ▪ Audio Delay: Enable/disable Audio Delay, set the audio delay time (-1 ~ -500 ms) after enabling

6.3.6 System- Output (Applicable to OIP-N40E)

No	Item	Description
1	Device ID/ Location	Device Name/Location ▪ The name is limited to 1 - 12 characters ▪ The location is limited to 1 - 11 characters ▪ Please use uppercase and lowercase letters or numbers for characters. Special symbols such as "/" and "space" cannot be used Note Modifying this field will modify the Onvif device name/location synchronously
2	Display Overlay	Set the stream to display "date and time" or "custom content" and to display location
3	Extender Source List	Display the extendable signal source device

6.3.7 System- Output (Applicable to OIP-N60D)
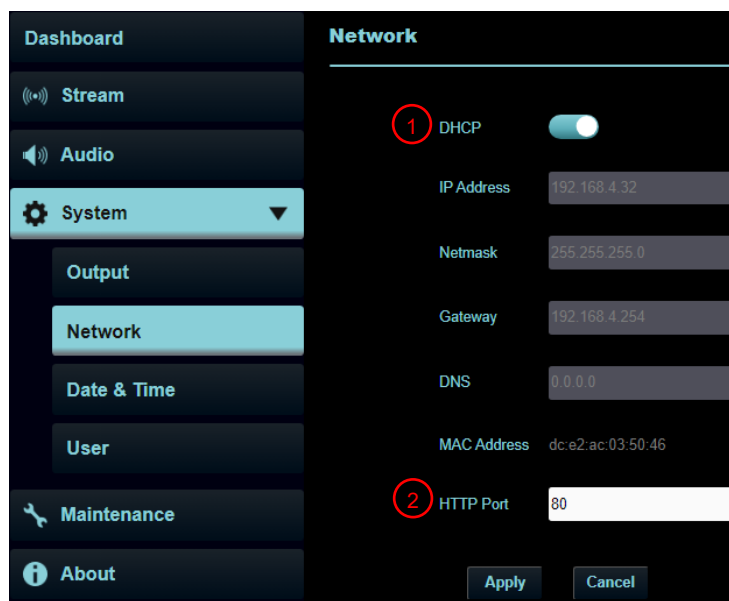

| No	Item	Description
1	Device ID/ Location	Device Name/Location ▪ The name is limited to 1 - 12 characters ▪ The location is limited to 1 - 11 characters ▪ Please use uppercase and lowercase letters or numbers for characters. Special symbols such as **"/"** and "space" cannot be used Note Modifying this field will modify the Onvif device name/location synchronously
2	Resolution	Set output resolution
3	HDMI Format	Set HDMI format to YUV422/YUV420/RGB
4	USB Extender	Turn on/off the USB network camera extension
5	Virtual USB output	Turn on/off virtual USB network camera output

6.3.8 System- Network

No	Item	Description
1	DHCP	Ethernet setting for OIP Bridge. Change of setting is available when DHCP function is

		closed
2	HTTP Port	Set HTTP port. The default Port value is 80

6.3.9 System- Date & Time
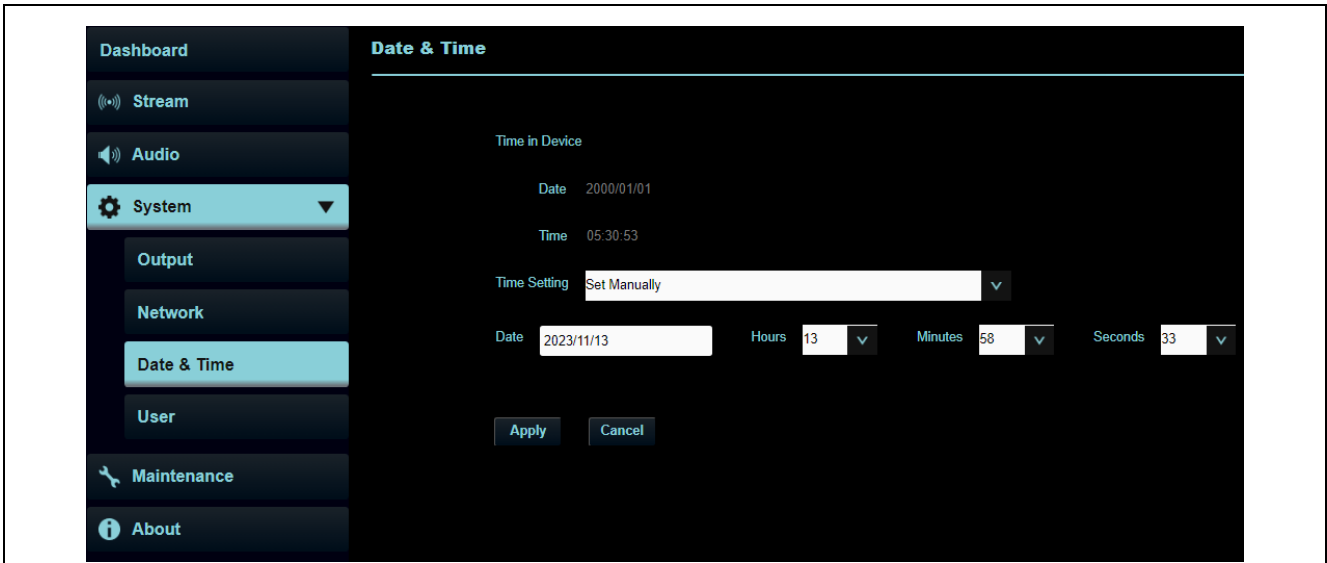
Function Descriptions
Display the current device/computer date and time, and set the display format and synchronization way
When Manually Set is selected for [Time Settings], Date & Time can be customized

6.3.10   System- User

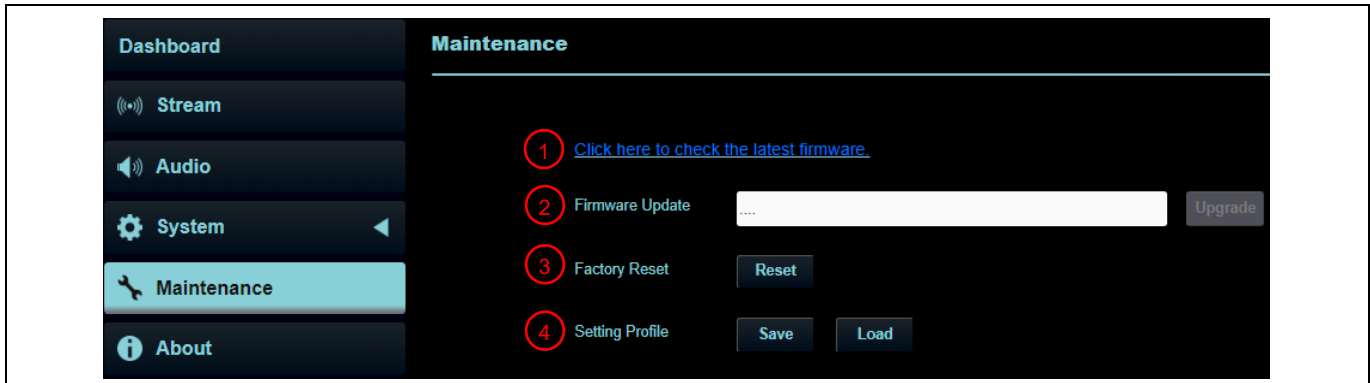| Function Descriptions |
|---|
| Add/Modify/Delete user account |

- Supporting 4 - 32 characters for user name and password
- Please mix uppercase and lowercase letters or numbers for characters. Special symbols or the underlined cannot be used
- Authentication Mode: Set the new account management permissions

User Type	Admin	Viewer
View	V	V

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Setting/Account management	**V**	**X**	

※When Factory Reset is executed, it will clear the user's data

6.3.11   Maintenance

No	Item	Description
1	Firmware link	Click on the link to the Lumens website and enter the model to obtain the latest firmware version information
2	Firmware Update	Select the firmware file, and click [Upgrade] to update the firmware 〔Note〕 Update takes about 2 - 3 minutes 〔Note〕 Please do not operate or turn off the power of the device during the update to avoid firmware update failure
3	Factory Reset	Reset all configurations to factory default settings
4	Setting Profile	Save setup parameters, and users can download and upload device setup parameters

6.3.12   About
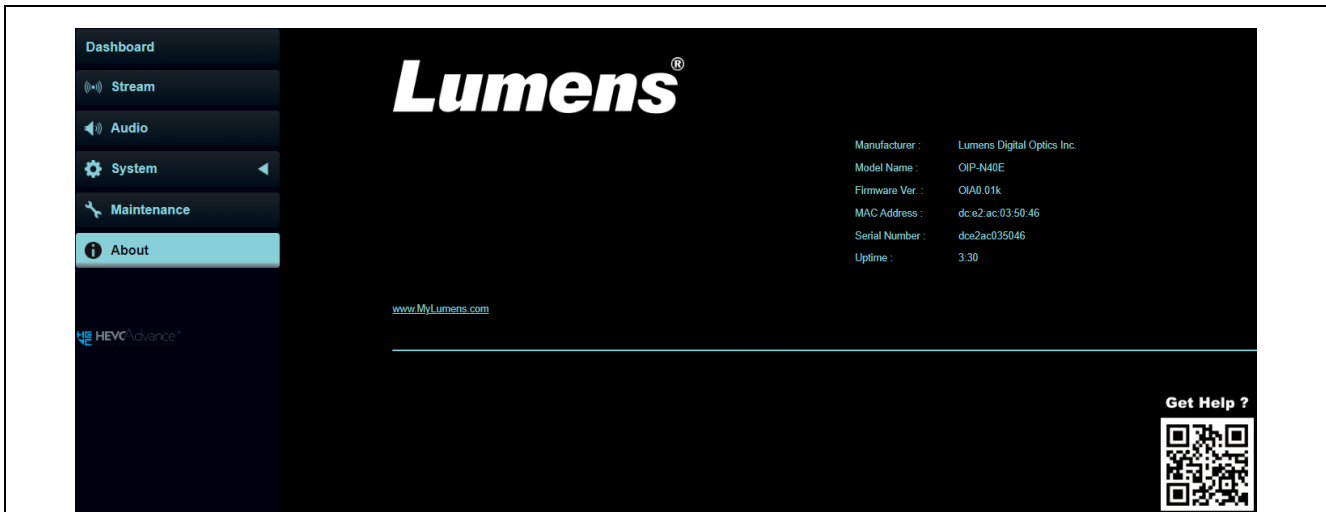
Function Descriptions
Display the firmware version, serial number, and other related information of the OIP Bridge For technical support, please scan the QR Code at the bottom right for assistance

Chapter 7 Troubleshooting

This chapter describes problems you may encounter while using OIP- OIP-N. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact your distributor or the service center.

No.	Problems	Solutions
1.	OIP-N40E cannot display the signal source screen	1. Confirm that the cables are fully connected. Please refer to **Chapter 4, Product Application and Connection** 2. Confirm that the input signal source resolution is 1080p or 720p 3. Confirm that USB-C cables are recommended to use specifications with a transmission rate of 10Gbps or higher
2.	OIP-N40E webpage USB extender cannot find OIP-N60D on the same network segment	1. Confirm that the OIP-N60D has enabled the USB extender function 2. Confirm that the management switch in the network has disabled the blocking of multicast packets
3.	Recommended specifications for USB-C cables	Transfer rate of 10 Gbps or higher

Chapter 8   Safety Instructions

Always follow these safety instructions when setting up and using the product:

1   Operation
 1.1   Please use the product in the recommended operating environment, away from water or source of heat.
 1.2   Do not place the product on a tilted or unstable trolley, stand or table.
 1.3   Please clean the dust on the power plug prior to usage. Do not insert the product's power plug into a multiplug to prevent sparks or a fire.
 1.4   Do not block the slots and openings in the case of the product. They provide ventilation and prevent the product from overheating.
 1.5   Do not open or remove covers, otherwise it may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
 1.6   Unplug the product from the wall outlet and refer servicing to licensed service personnel when the following situations happen:
   ■ If the power cords are damaged or frayed.
   ■ If liquid is spilled into the product or the product has been exposed to rain or water.

2   Installation
 2.1   For security considerations, please make sure the standard mount you use is in line with UL or CE safety approbations and installed by technician personnel approved by agents.

3   Storage
 3.1   Do not place the product where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
 3.2   Unplug this product during thunderstorms or if it is not going to be used for an extended period.
 3.3   Do not place this product or accessories on top of vibrating equipment or heated objects.

4   Cleaning
 4.1   Disconnect all the cables prior to cleaning and wipe the surface with a dry cloth. Do not use alcohol or volatile solvents for cleaning.

5   Batteries (for products or accessories with batteries)
 5.1   When replacing batteries, please only use similar or the same type of batteries
 5.2   When disposing of batteries or products, please adhere to the relevant instructions in your country or region for disposing of batteries or products

■ **Precautions**

⚡	This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock. Do not remove the cover (or back). No user-serviceable parts inside. Refer servicing to licensed service personnel.	⚠	This symbol indicates that there are important operating and maintenance instructions in this User Manual with this unit.

■ **FCC Warning**
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice :
The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are to provide reasonable protection from harmful interference in residential installations.

■ **IC Warning**
This digital apparatus does not exceed the Class B limits for radio noise emissions
from digital apparatus as set out in the interference-causing equipment standard
entitled "Digital Apparatus," ICES-003 of Industry Canada.

Cet appareil numerique respecte les limites de bruits radioelectriques applicables aux appareils numeriques de Classe B
prescrites dans la norme sur le material brouilleur: "Appareils Numeriques," NMB-003 edictee par l'Industrie.

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