NetUP Streamer HEVC

User manual   20 March 2019

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Chapter 1   Introduction

NetUP Streamer HEVC is a professional HD audio and video encoding and multiplexing device. It has 4/8/12 SDI/HDMI video input interfaces, and supports H.265 HEVC/H.264 AVC video encoding and MPEG 1 Layer 2 audio encoding. This device can simultaneously encode 4/8/12 channels HD audio & video; moreover, the IP output can support 1MPTS and 4/8/12SPTS (4/8/12 HDMI inputs) IP output from Data port.

Appearance and illustration
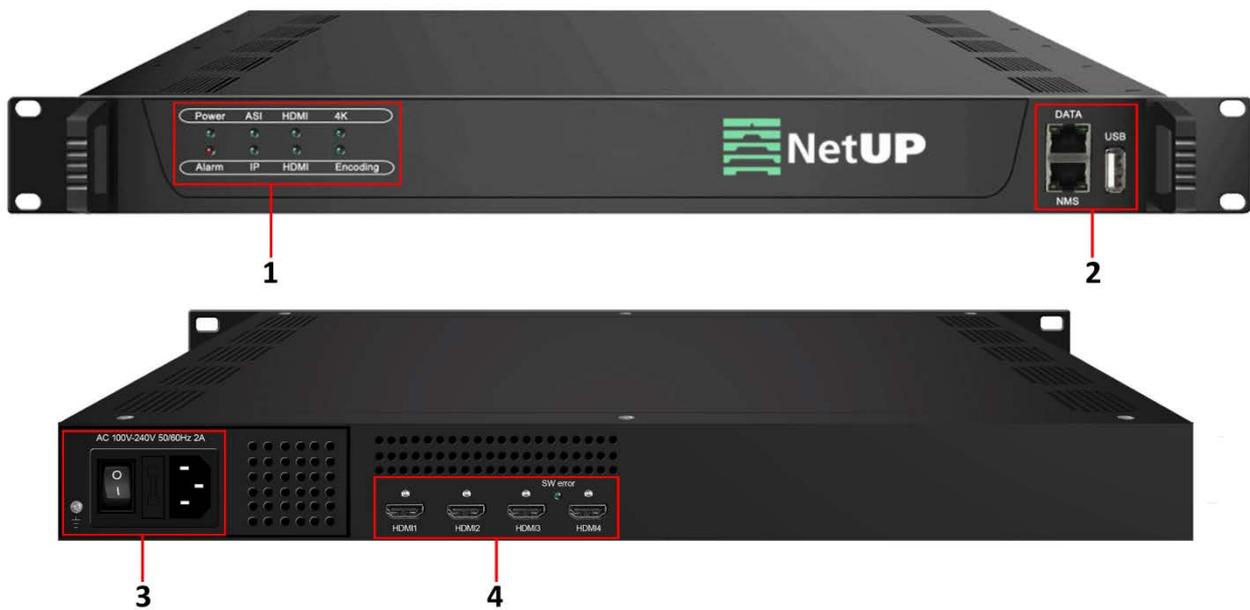
1	Indicators
2	NMS (Network Management Port), Data Port (for IP output) and USB
3	Power switch, fuse, power socket and grounding pole
4	4 HDMI input ports

Specifications

Input	4/8/12×HDMI input (1.4), HDCP 1.4	
	4/8/12×SDI input	
Video encoding	Encoding Format	H.265/HEVC, H.264/AVC
	Resolution	1920×1080_60P, 1920×1080_59.94P
		1920×1080_50P, 1920×1080_30P
		1280×720_60P, 1280×720_59.94P
		1280×720_50P, 1280×720_30P
	Chroma	4:2:0
	Bitrate	1Mbps~15Mbps (each channel)
	Rate Control	CBR/VBR
	GOP Structure	IBBP, IPPP
Audio encoding	Encoding Format	MPEG-1 Layer 2
	Sampling rate	48KHz
	Bit-rate	48Kbps~384Kbps (each channel)
	Audio Gain	0~255
Output	1 MPTS and 4/8/12 SPTS output over UDP/RTP/RTSP,	
	1000M/100M Base-T Ethernet interface (unicast/multicast),	
	IP null packet filter	
System	Web-based management	
	Ethernet software upgrade	
Other parameters	Dimension (W×L×H)	482mm×328mm×44mm
	Approx. weight	4kg
	Temperature	0~45℃ (work); -20~80℃ (storage)
	Power requirements	AC 100V-220V±10%, 50/60Hz

Chapter 2   Installation guide

Device's installation flow chart

Packing list check	→	Installing device	→	Connecting grounding wire and power cord	→	Connecting signal cable	→	Setting parameter	→	Running device
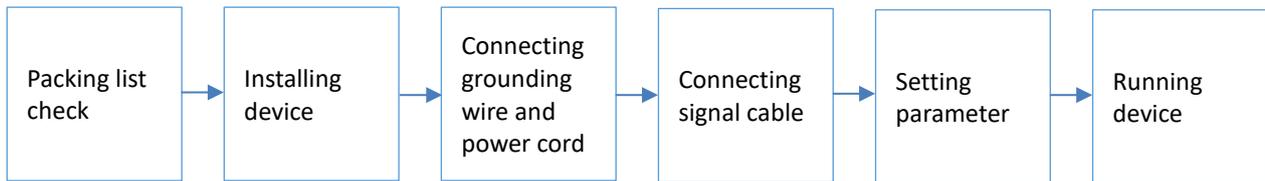
> ⊘ *Before installing and connecting the device, carefully read the environment and grounding requirements, as well as safety instructions for the sake of your safety and for the safety of the device*

Packing list check

Check items according to packing list. Normally it should include the following items:

- NetUP Streamer HEVC
- Power Cord
- HDMI/SDI cable
- Network cable

Safety instructions

- Before installing and connecting the device make sure that the device was not damaged during delivery.
- Install the device in an appropriate place. The device is designed to work in a clean and dry room. It must be operated and maintained free of dust.
- Before switching on the device make sure that it is adjusted to the mains voltage you intend to use. Make sure that you keep within the specifications – AC 100V-220V±10%, 50/60Hz.
- Check that all the cables are connected properly. Connect cables only to a device that is turned off.

Environment requirement

Item	Requirement
Room space	When installing a rack in the room, make sure the distance between two rows of racks is 1.2~1.5m and the distance to the wall is at least 0.8m.
Room floor	Electric isolation. Dust free. The volume resistivity of ground anti-static material: 1×107~1×1010 Ω. Grounding current limiting resistance: 1M (Floor bearing should be greater than 450Kg/m^2).
Environment temperature	5~40℃ (sustainable), 0~45℃ (short time). Installing air-conditioning is recommended.
Relative temperature	20%~80% (sustainable); 10%~90% (short time).
Pressure	86~105KPa
Door & window	Install rubber strip for sealing door-gaps and dual level glasses for windows
Walls	Can be covered with wallpaper or dark paint.
Fire protection	Fire alarm system and extinguisher.
Power	The device requires AC 100V-220V±10%, 50/60Hz. Please carefully check before running.

Grounding requirement

- Connect the ground wire to the grounding hardware on the device. Ground resistance should be no more than 1 Ω.

> *(i) Grounding is essential for device's functionality, surge and electronic interference protection*

- Keep proper contact with the metal housing of the device
- Grounding wire must be made out of copper and as thick and short as possible
- Make sure the two ends of grounding wire conduct electricity and are not rusty
- It is prohibited to use any other devices as a part of grounding electric circuit
- All racks should be connected with a protective copper strip. Ground loops should be avoided
- Grounding wire's contact area with the rack should be no less than 25mm^2

Chapter 3   WEB NMS Operation

Use the Web interface to control NetUP Streamer HEVC.

Login

Connect a personal computer and the device with net cable, and use ping command to confirm they are on the same network segment.

> (i) *Make sure that the computer's IP address is different from the device's IP address; otherwise, it would cause an IP conflict*

The default IP address of NetUP Streamer HEVC is **192.168.0.136**. Thus, set the computer's IP address to 192.168.0.X, where X can be from 0 to 255, except 136. Open a web browser, enter the device's IP address in the browser address bar and press **Enter**. If the network is configured correctly, you will see the login interface (Figure 1).
Enter username and password and click **LOGIN** to enter the web interface. Default username is "admin", default password is "admin".
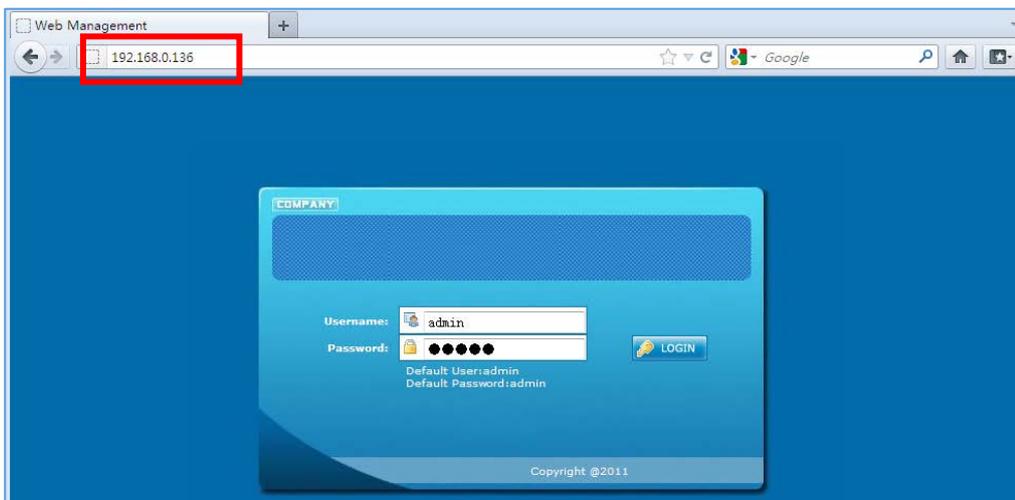
Figure-1

Summary → Status

After login, you will get the **Status** page which displays the current system status (Figure-2).
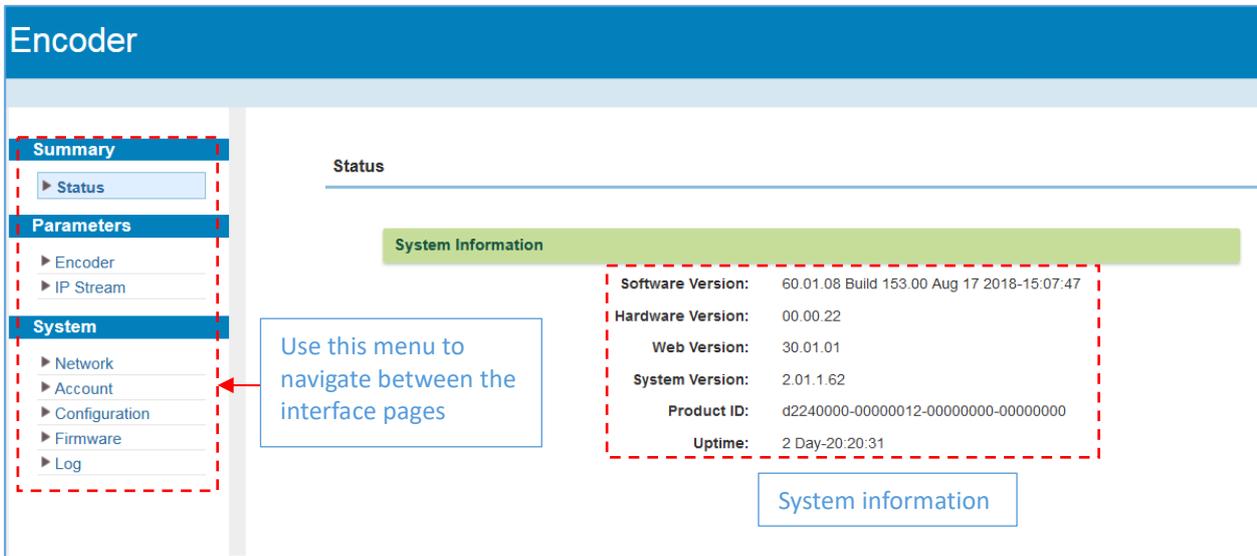
Figure-2

Parameters → Encoder

Use the **Encoder** page to set video and audio parameters for each encoding channel (Figure-3).

Figure-3

Parameters → IP Stream

Use the **IP Stream** page to set IP output parameters (Figure-4).

Figure-4

Clik on the **Quick config** button to open the dialog box as Figure-5:

Figure-5

Clik on the **Channel config** button to open the dialog box as Figure-6:

Figure-6

System → Network

Use the **Network** page to edit networking parameters (Figure-7).

Figure-7

System → Account

Use the **Account** page to change current password and username (Figure-8).

Figure-8

System → Configuration

Use the **Configuration** page to save or restore system configuration, to revert to factory settings, to work with backups or to load configurations (Figure-9).
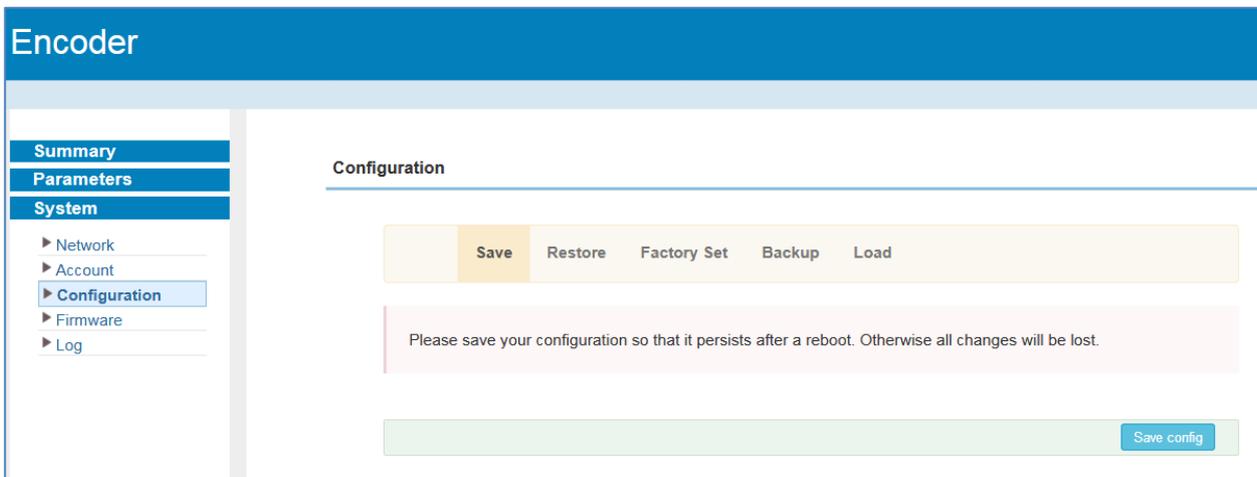
Figeru-9

System → Firmware

Use the **Firmware** page to upgrade firmware for the device (Figure-10).
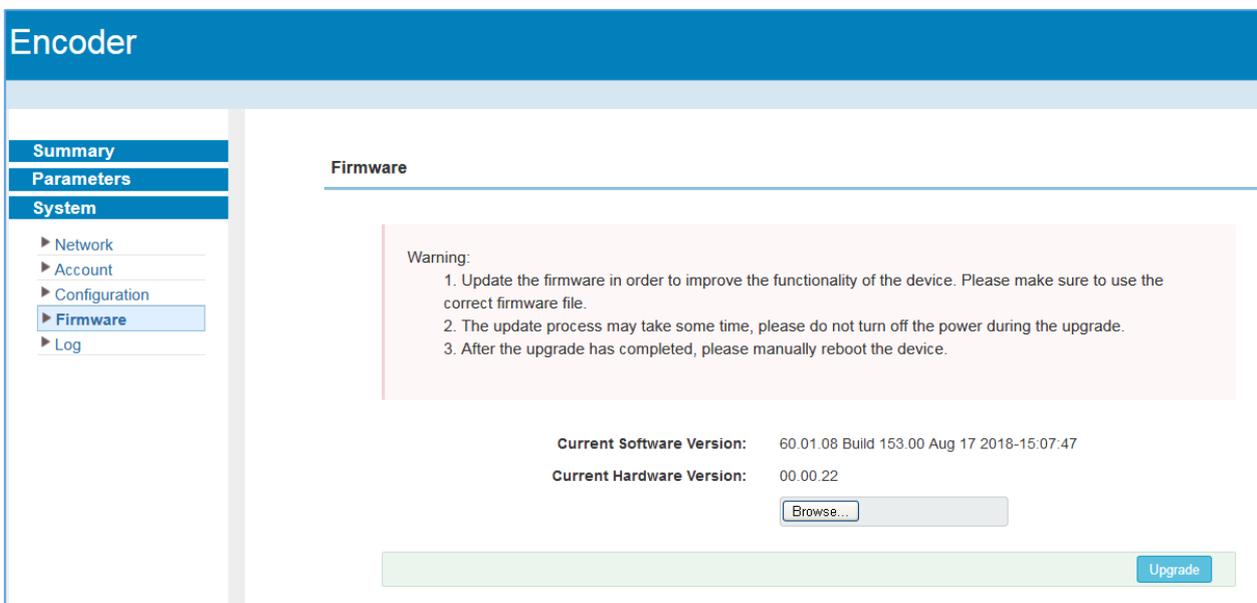
Figure-10

System → Log

Use the **Log** page to see system logs (Figure-11).

Figure-11

Troubleshooting

Check the following before troubleshooting:

- Whether the server room is well ventilated and hot air from the back panel of the device is effectively removed?
- Does the supply voltage meet the power requirements of the device?
- Are all cables connected correctly?

Turn off the device and unplug the power cord in the following cases:

- The power cord or socket is damaged.

- A liquid is splashed on the device.

- A short circuit has occurred.

- The device is in damp environment.

- The device suffered from physical damage.

- Longtime idle.

- After switching on and restoring to factory setting, device still cannot work properly.

- Maintenance needed.

> *Frequent on and off switching is prohibited; the interval between switching the device on and off must be more than 10 seconds*