NetUP Streamer HD v2 8-24x

User manual

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Contents

Chapter 1   Introduction

NetUP Streamer HD v2 8-24x is a professional HD audio & video encoding and multiplexing device. It has 12 HDMI (8/16/20/24 HDMI optional) video input interfaces, supporting MPEG-4 video encoding and MPEG 1 Layer 2 audio encoding. This device can simultaneously encode 12(8/16/20/24 HDMI optional) channel HD audio & video; moreover, it has an IP output port can support 1MPTS and 12SPTS (8/16/20/24 SPTS) IP out. In conclusion, its high integration and design make the device widely used in varieties of digital distribution systems such as cable TV digital head-end, satellite digital TV broadcasting etc.

Appearance and illustration
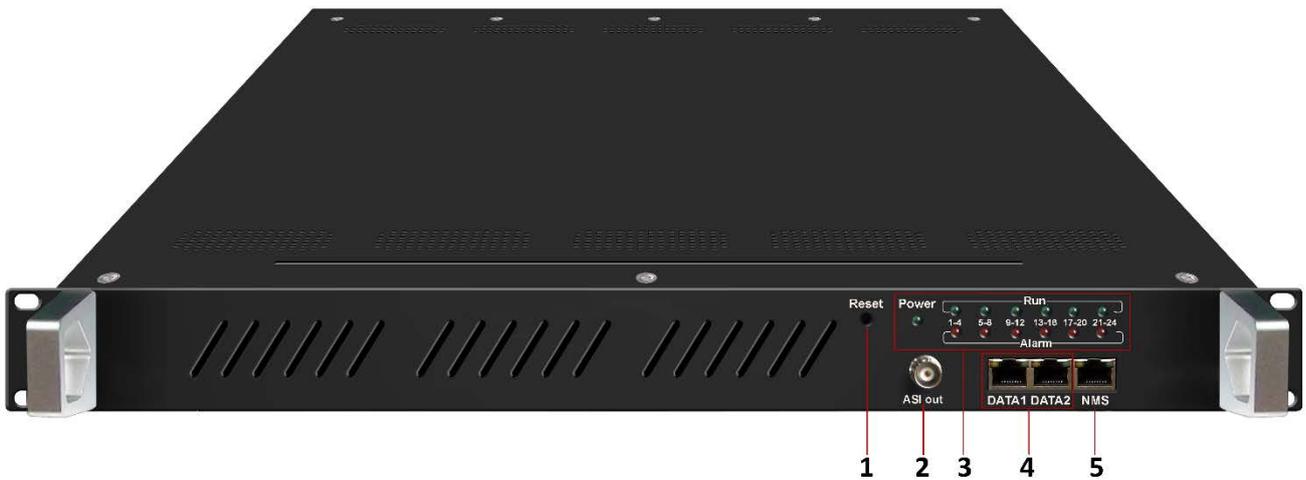
Front panel:

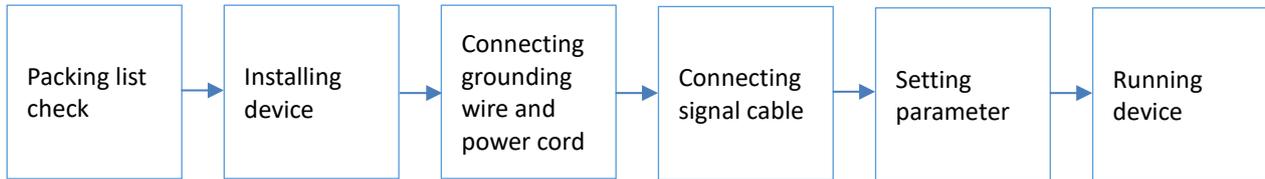| 1	Reset key
3	ASI output port (Optional)
4	Data port indicator
5	DATA Port (one GE port and one FE for IP stream output)
6	NMS/CAS
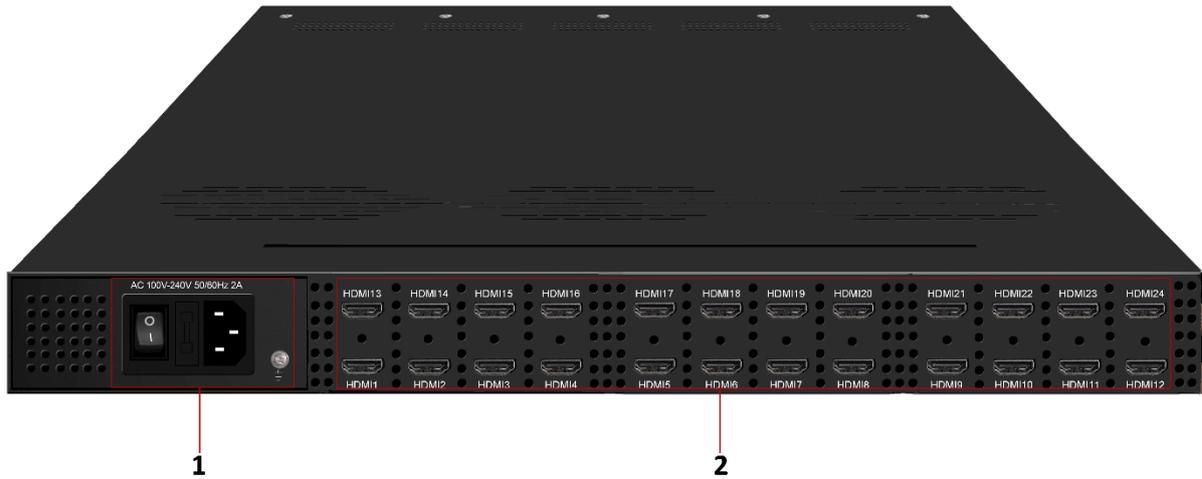
Rear panel:

1	Power switch, fuse, power socket and grounding pole
2	24 HDMI input

Specifications

Input	12 HDMI inputs (8/12/16/20/24 input optional)		
Video	Encoding		MPEG-4 AVC/H.264
	Resolution	input	1920×1080_60P, 1920×1080_60i, 1920×1080_50P, 1920×1080_50i, 1280×720_60P, 1280×720_50P, 720×576_50i,720×480_60i
		output	1920×1080_30P, 1920×1080_25P, 1280×720_30P, 1280×720_25P, 720×576_25P,720×480_30P
	Bitrate		1Mbps~13Mbps (each channel)
	Rate control		CBR/VBR
	GOP Structure		IP…P (P Frame adjustment, without B Frame)
Audio	Encoding		MPEG-1 Layer 2
	Sample rate		48KHz
	Resolution		24-bit
	Bitrate		64kbps, 128Kbps, 192kbps, 224kbps, 256kbps, 320kbps, 384kbps
Multiplexing	Maximum PID Remapping		180 input per channel
	Function		PID remapping (automatically or manually)
			Accurate PCR adjusting
			Generate PSI/ SI table automatically
Output	12×SPTS IP or 1MPTS output over UDP/RTP, 1×1000 Base-T Ethernet interface ASI output (optional) as copy of MPTS		
System	Network management (WEB)		
	Ethernet software upgrade		
Other parameters	Dimension (W×L×H)		482mm×410mm×44mm
	Approx. weight		8kg
	Temperature		0~45℃ (work); -20~80℃ (storage)
	Power requirements		AC 100V-220V±10%, 50/60Hz
	Power consumption		70W

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 HD v2 8-24x
- Power Cord
- HDMI 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 must be 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

> *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 HD v2 8-24x.

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 HD v2 8-24x 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".
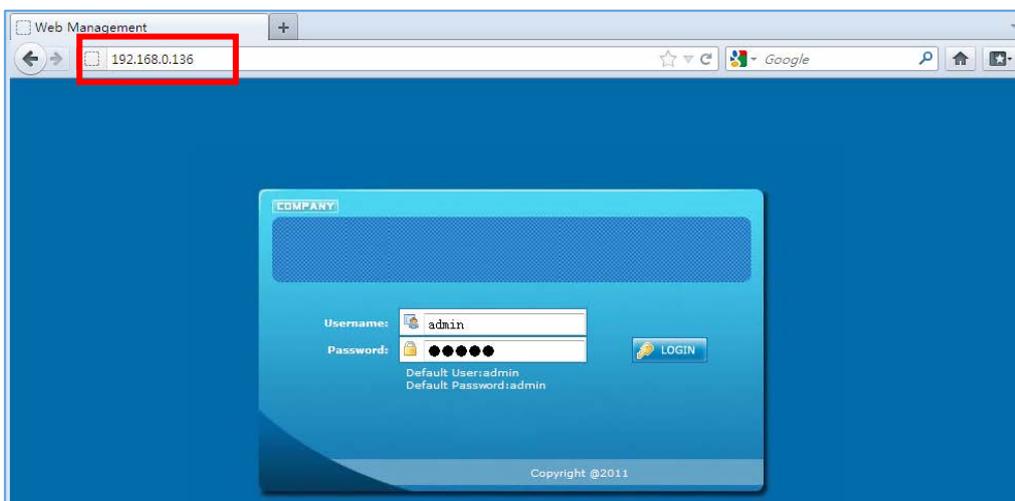
Figure-1

Summary → Status

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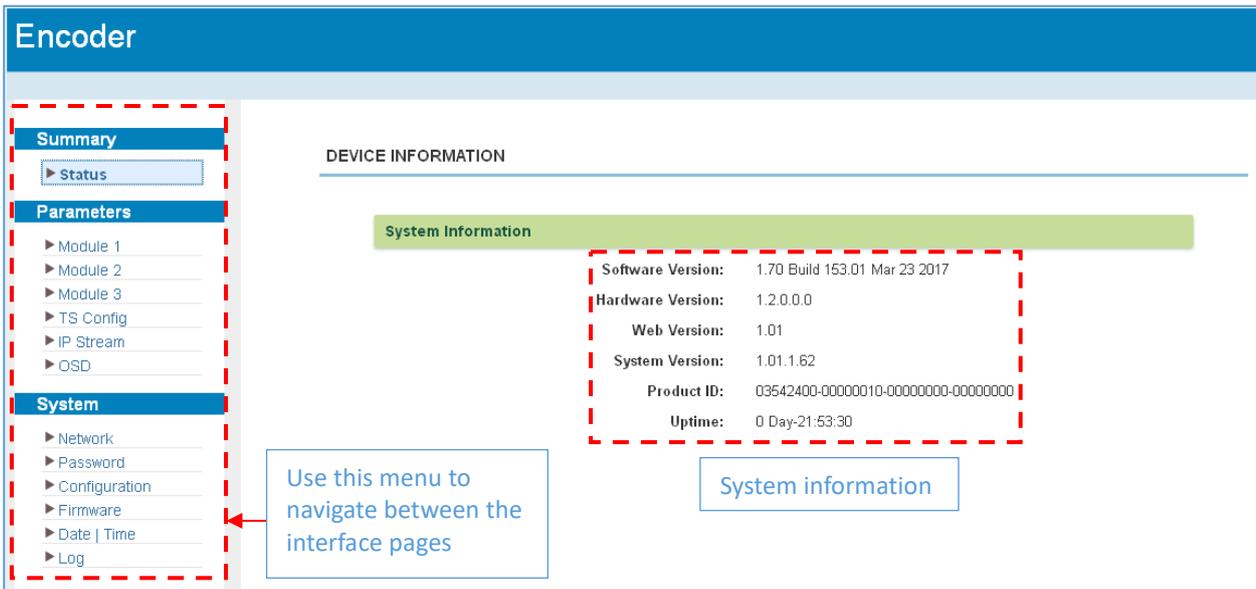
Figure-2

Parameters → Module 1-6

This encoder supports up from 2 to 6 modules with 8/12/16/20/24 HDMI input. Use the **Module 1-6** page to set coding parameters for each channel (Figure-3).
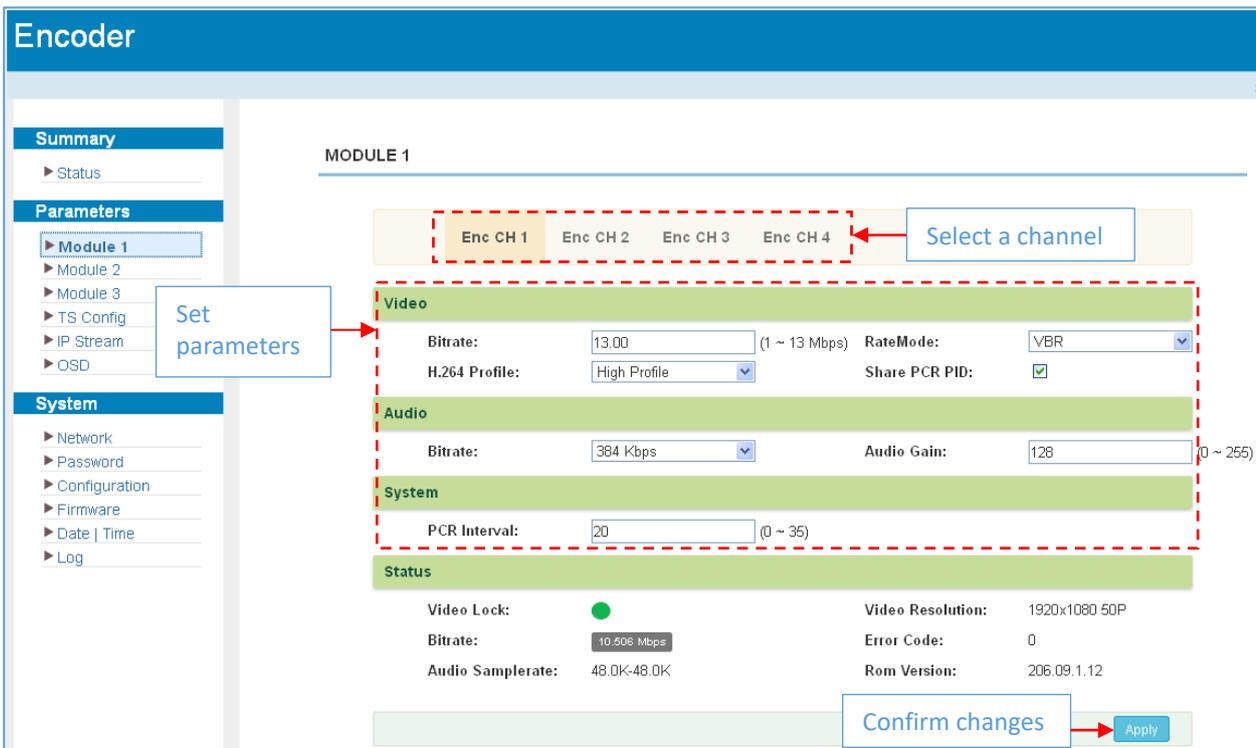
Figure-3

Parameters → TS Config

Use the **TS Config** page to configure the TS output parameters and select one of the following tabs: **Stream Select, General** or **PID Bypass**.

Stream Select

Select the **Stream Select** tab to select streams that should be sent to Mux out and to modify program info (Figure-4).
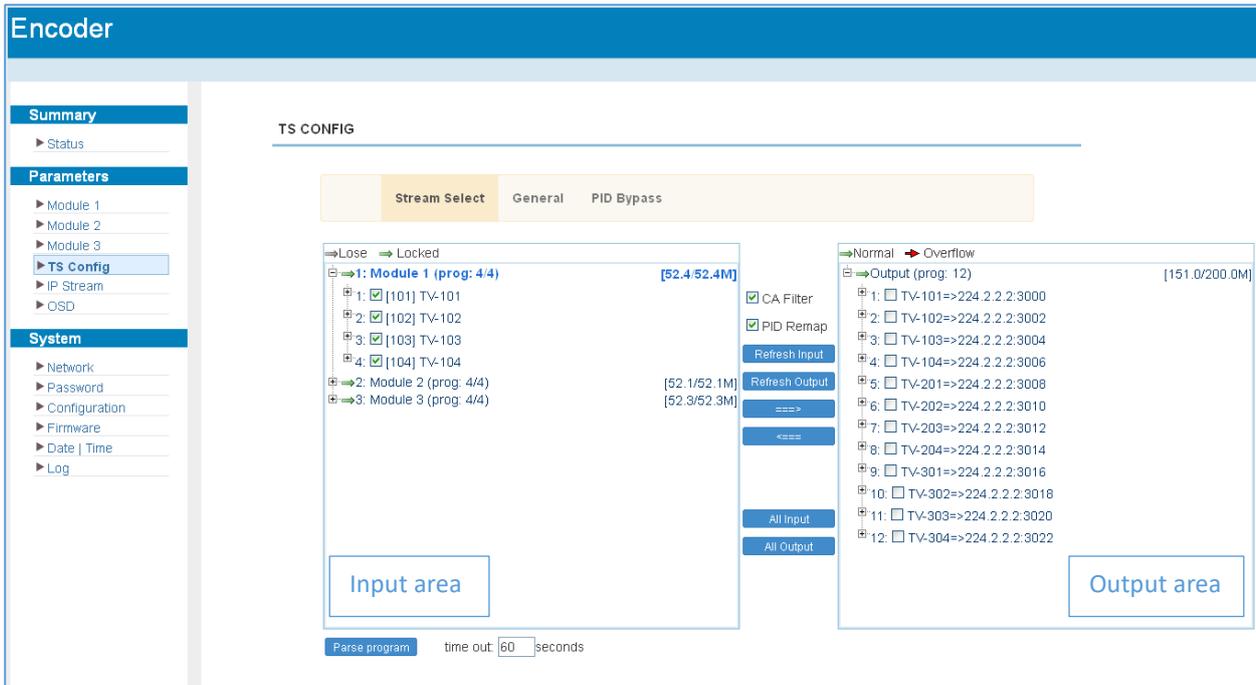
Figure-4

Configure input and output streams with following buttons:

✚	add an input channel	✖	delete an input channel
✎	edit an input channel	🗑	delete all input channels
Lose / Locked		input signal lock. Green means signal is present	
Normal / Overflow		TS overflow status. Red means that TS is overflowing and you need to decrease number of channels	
CA Filter		filter or not filter the source CA information	
PID Remap		enable or disable PID remapping	
Refresh input / output		refresh an input or an output	
===> / <===		move programs between the input and the output areas	
All input / output		select all input or output programs	
Parse program		parse programs with a time limit	

Click on a program in the output area to open the **Program information** window (Figure-5):

Figure-5

General

Select the **General** tab to edit common parameter for output streams (Figure-6).

Figure-6

PID Bypass

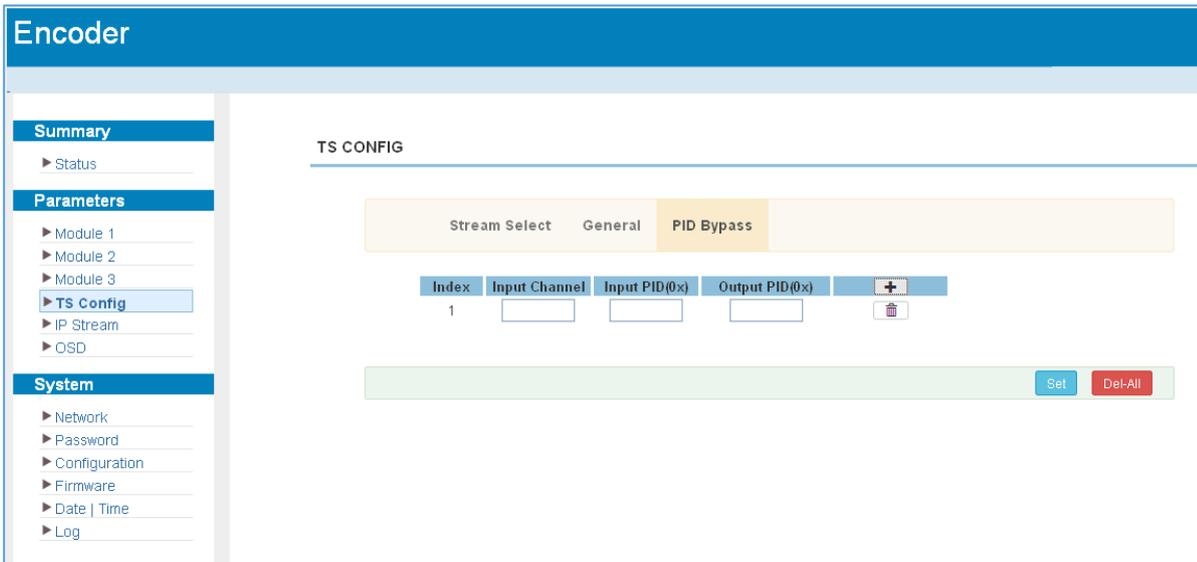Select the **PID Bypass** tab to edit the list of PIDs that should pass through (Figure-7).

Figure-7

Parameters → IP Stream

NetUP Streamer HD v2 8-24x supports TS to output in IP format through the DATA1 and DATA2 port.
Use the **IP Stream** page to set IP out parameters (Figure-8).
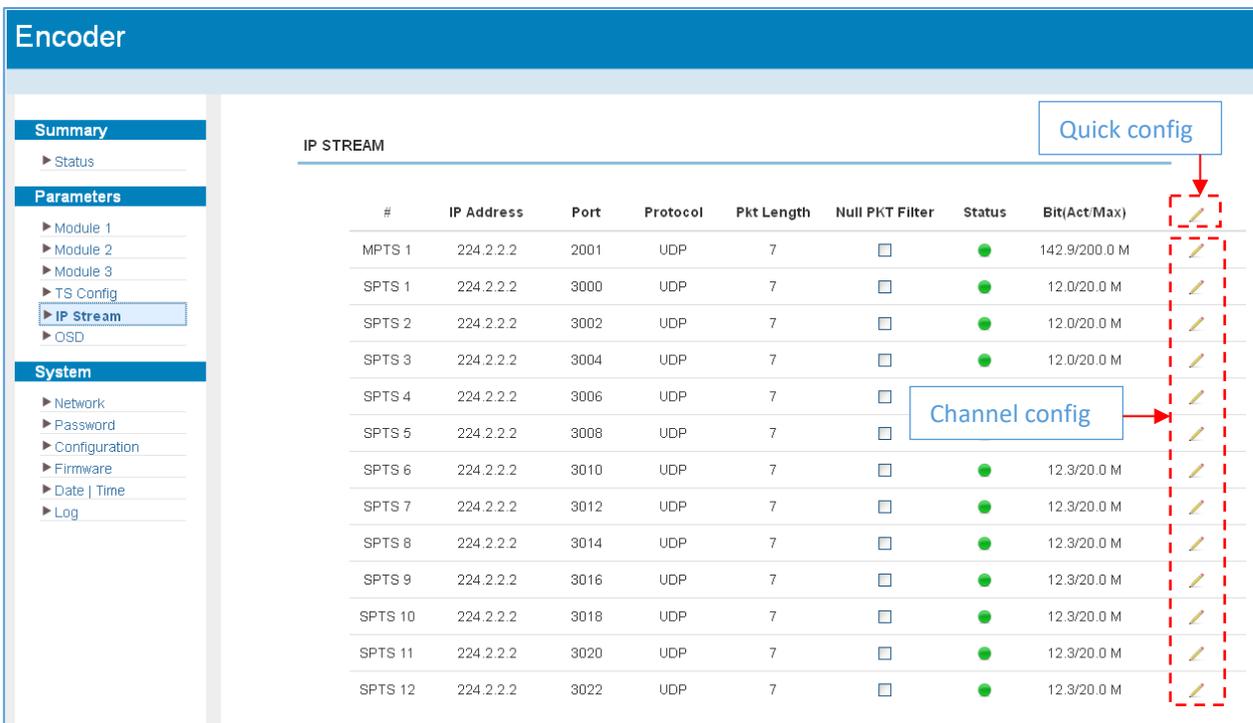
Figure-8

Parameters → OSD

Use the **OSD** page to configure the OSD parameters and select one of the following tabs: **Logo, Caption** or **QRCode.**

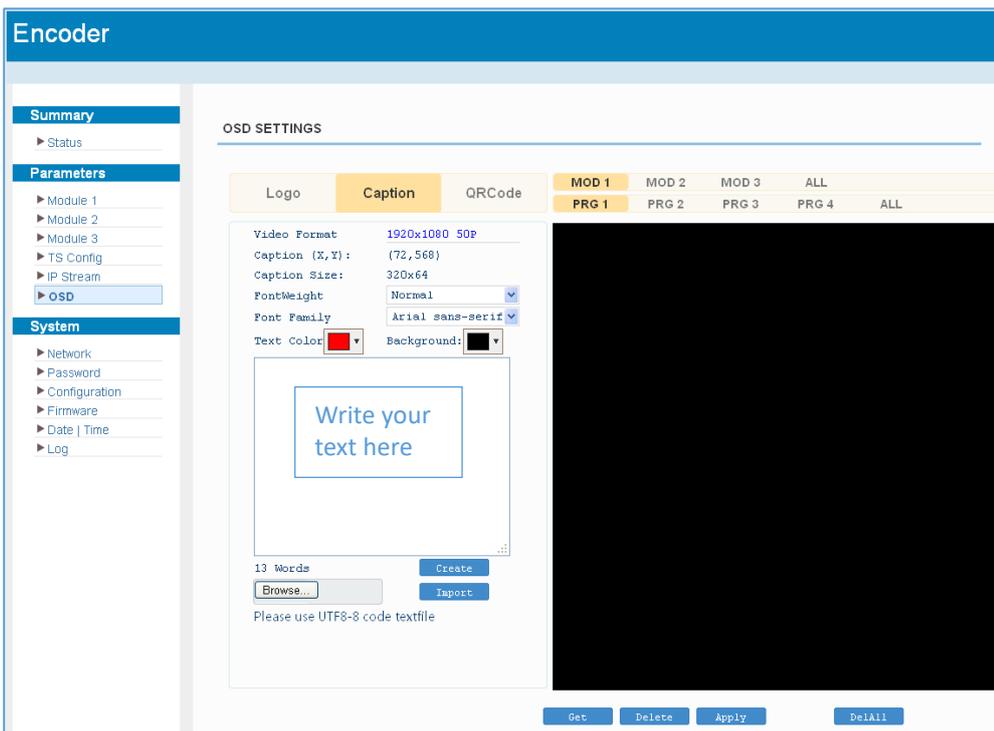## Logo

Figure-9
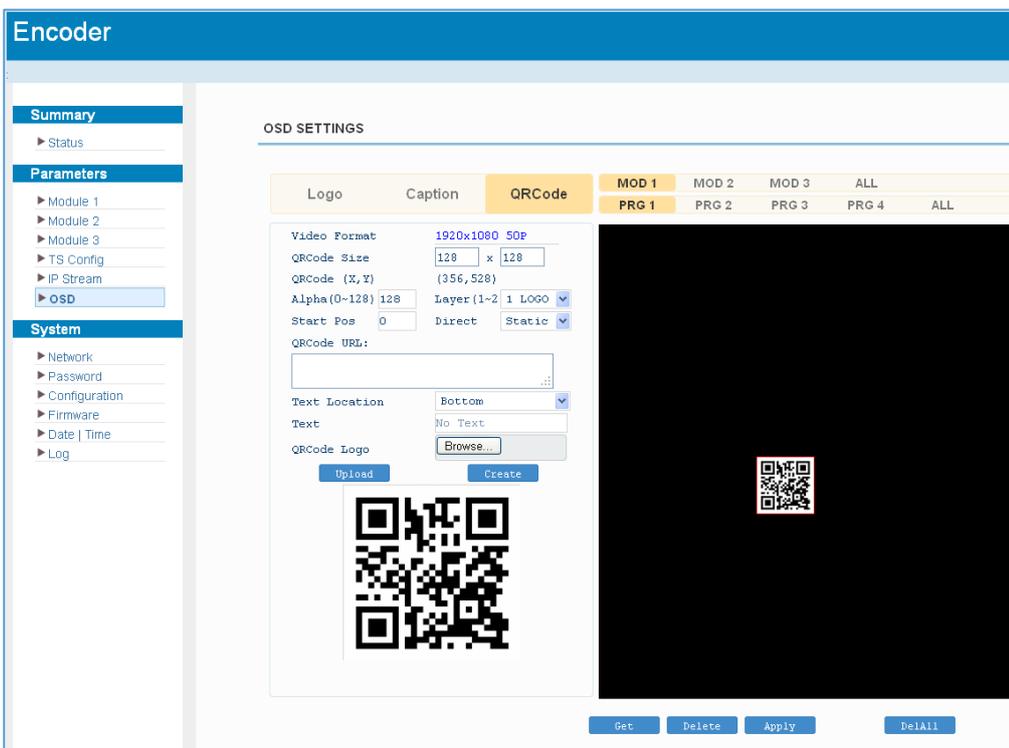
Caption

Figure-10

QRCode

Figure-11

System → Network

Use the **Network** page to edit networking parameters (Figure-12).

Figure-12

System → Password

Use the **Password** page to change current password and username (Figure-13).

Figure-13

System → Configuration

Use the **Configuration** page to save or restore the system configuration, to work with backups, to return to the factory settings and to load the configuration file (Figure-14).
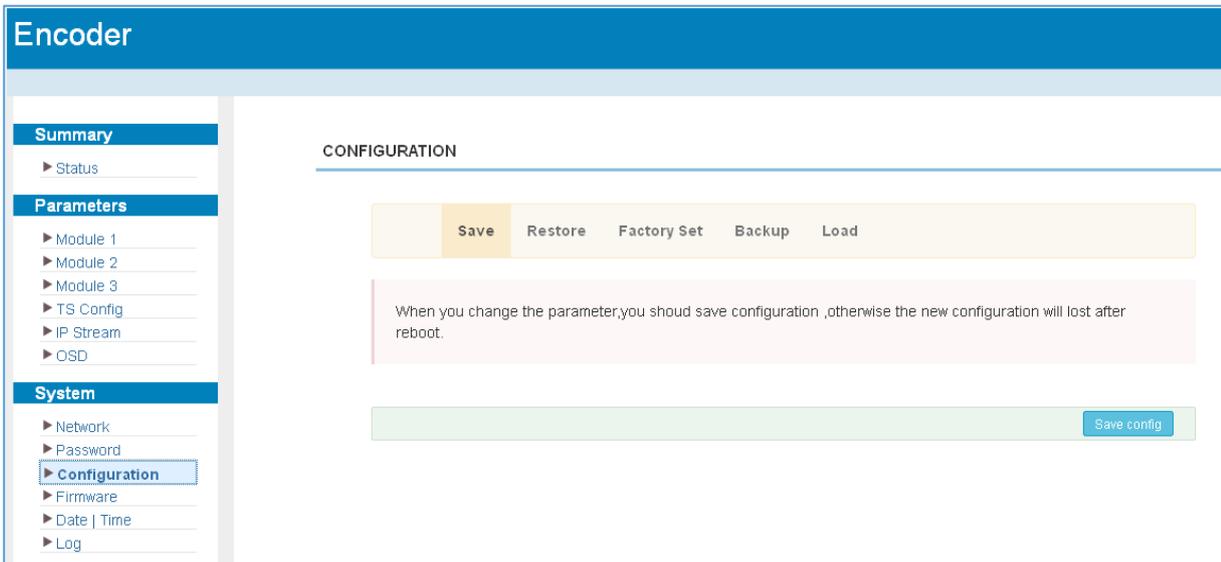

Figure-14

System → Firmware

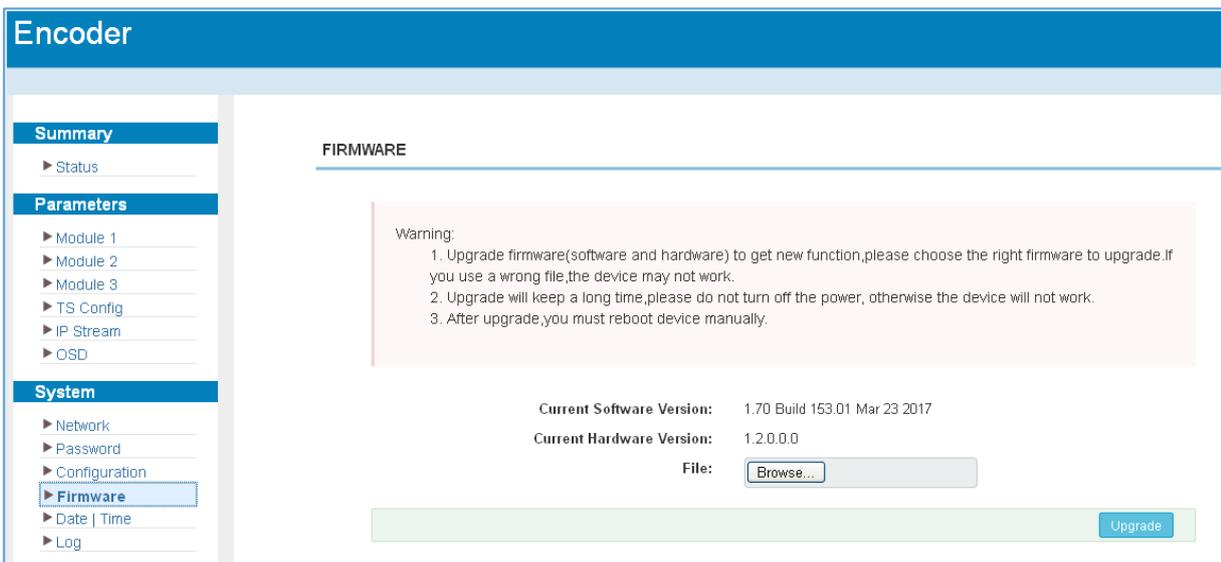Use the **Firmware** page to update firmware for the device (Figure-15).

Figure-15

System → Date | Time

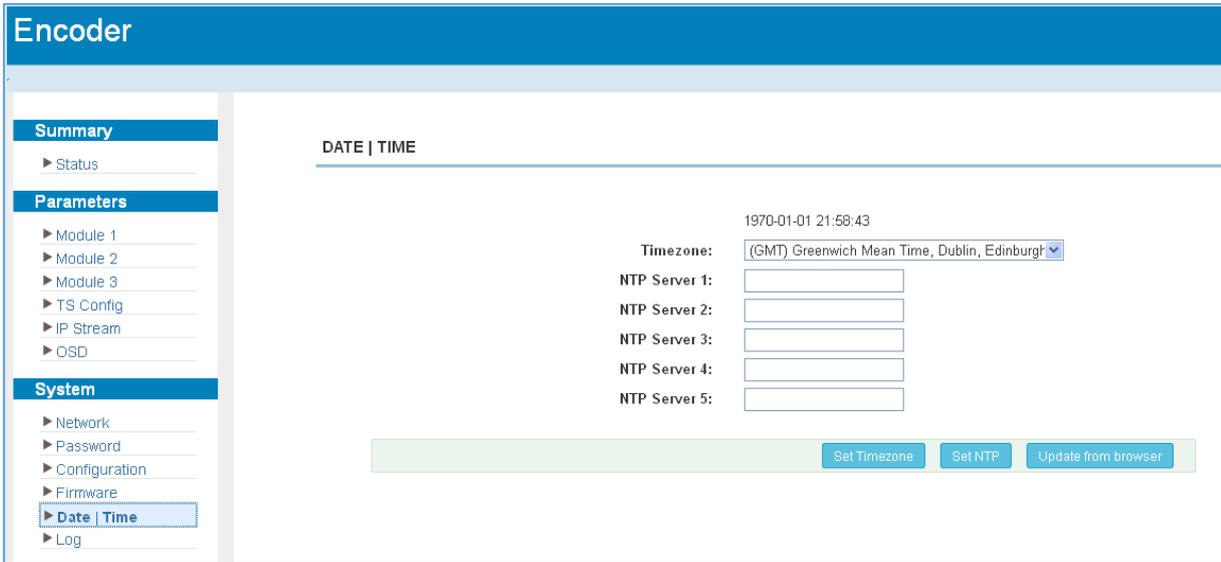Use the **Date | Time** page to set date and time for the device (Figure-16).

Figure-16

System → Log

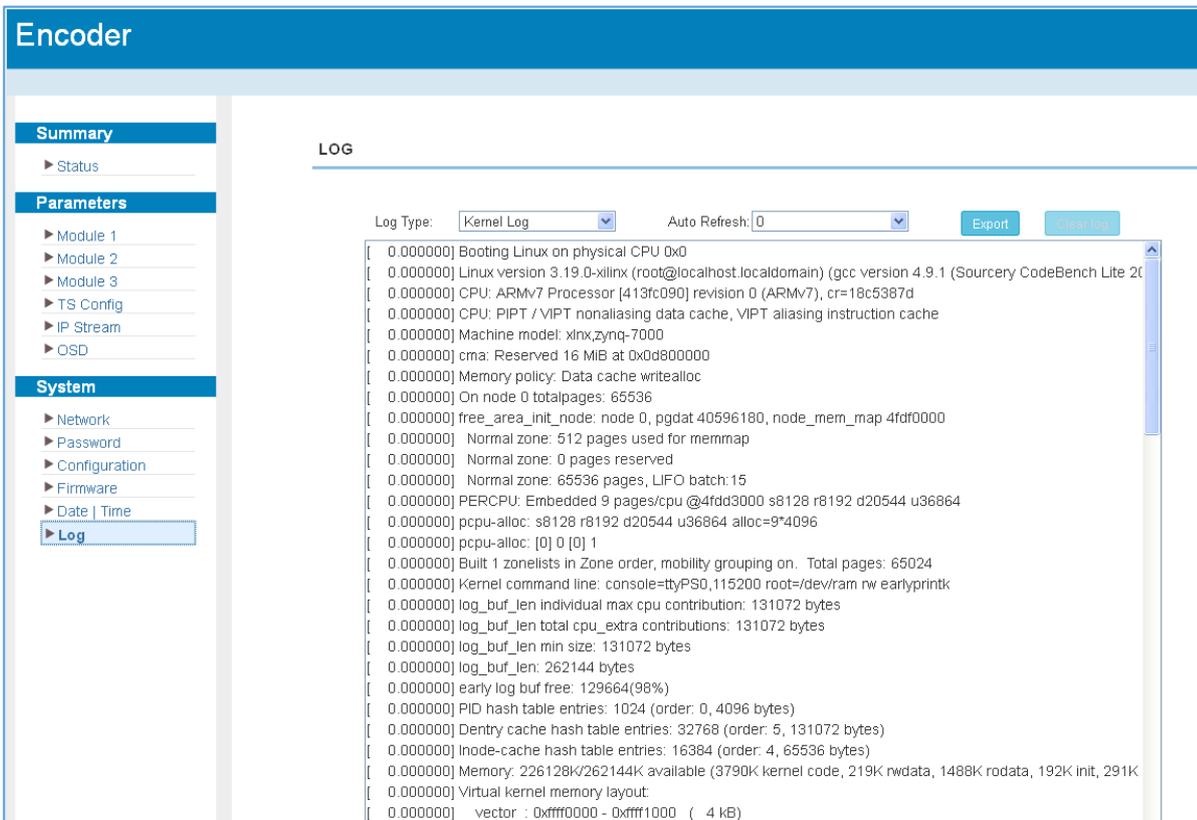Use the **Log** page to see system logs (Figure-17).

Figure-17

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*