NetUP Streamer DVB 8xC

User manual

9 April 2019

Contents

Chapter 1 Introduction

NetUP Streamer DVB 8xC is a high performance and cost-effective DVB-C modulator. It has 8 DVB-S2 tuner inputs, after multiplexing and modulating process, then it gives 4 RF output. To meet customers' various requirements, this device is also equipped with 128 IP input and 4 MPTS output over UDP and RTP. Its pluggable structure design greatly facilitates the change of modules as needed. Moreover, the four CAMs/CIs accompanied can descramble the programs input from 8 Tuner inputs. NetUP Streamer DVB 8xC can be upgraded and controlled through network system.

Appearance and illustration

Front panel:

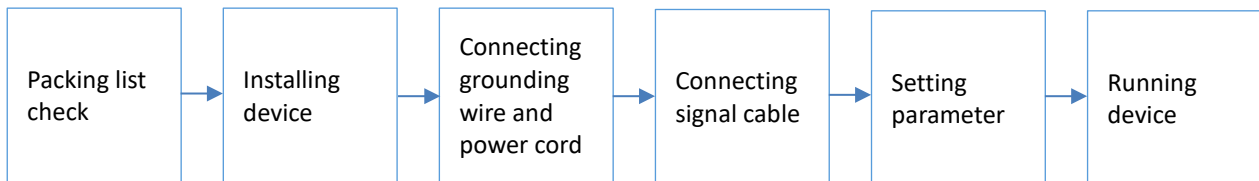| 1	Power Indicator
2	RF output interface
3	DATA port and NMS port for network management connection

Rear panel:

1	**Module 1:** 2 CAMs /Smart card slots and 2 RF signal input and loop-through
2	**Module 2:** 2 CAMs /Smart card slots and 2 RF signal input and loop-through
3	4 FTA tuner input interface
4	Power switch, fuse, power socket
5	Grounding pole

Specifications

Input	8×DVB-S2; 128×IP(SPTS/MPTS) over UDP and RTP; RJ45, 1000 M /100 M Unicast/Multicast		
Tuner	DVB-S	Input frequency	950-2150MHz
		Symbol rate	2-45Msps
		Signal strength	-65~-25dBm
		FEC Demodulation	1/2, 2/3, 3/4, 5/6, 7/8 QPSK
		Input frequency	950-2150MHz
	DVB-S2	Input frequency	950-2150MHz
		Symbol rate	QPSK 1~45Mbauds;
		Code rate	8PSK 2~30Mbauds
		Constellation	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Descrambling	CAM/CI Quantity	4	
Multiplexing	Maximum PID Remapping	256 per input channel	
	Function	PID Remapping	
		Accurate PCR adjusting	
		Generate PSI/SI table automatically	
Modulation	DVB-C	Standard	J.83A (DVB-C), J.83B,
		MER	≥43dB
		RF frequency	30~960MHz, 1KHz step
		RF output level	-25~ -1dbm (77~97 dbμV), 0.1db step
		Symbol rate	5.000~7.000Msps adjustable
		RF Out	4×DVB-C adjacent carriers combined output
		J.83A Constellation	16/32/64/128/ 256 QAM
		Bandwidth	8M
Output	4×MPTS over UDP and RTP (RJ45, 1000 M /100 M Unicast/Multicast)		
Other parameters	Operate and update	Network management software (NMS)	
	Dimension (W×L×H)	482 mm × 300 mm × 44,5 mm	
	Approx. weight	3,7 kg	
	Temperature	0-45℃ (operation); -20-80℃ (storage)	
	Power requirements	AC 100V; 220V±10%, 50/60Hz	
	Power consumption	25W	

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 DVB 8xC
- Power Cord
- RF Input/Loop Cables

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

> ⓘ *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 DVB 8xC.

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 DVB 8xC is **192.168.0.136** or **10.0.0.103**. Thus, set the computer's IP address to 192.168.0.X or 10.0.0.X, where X can be from 0 to 255, except 136 or 103. 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".
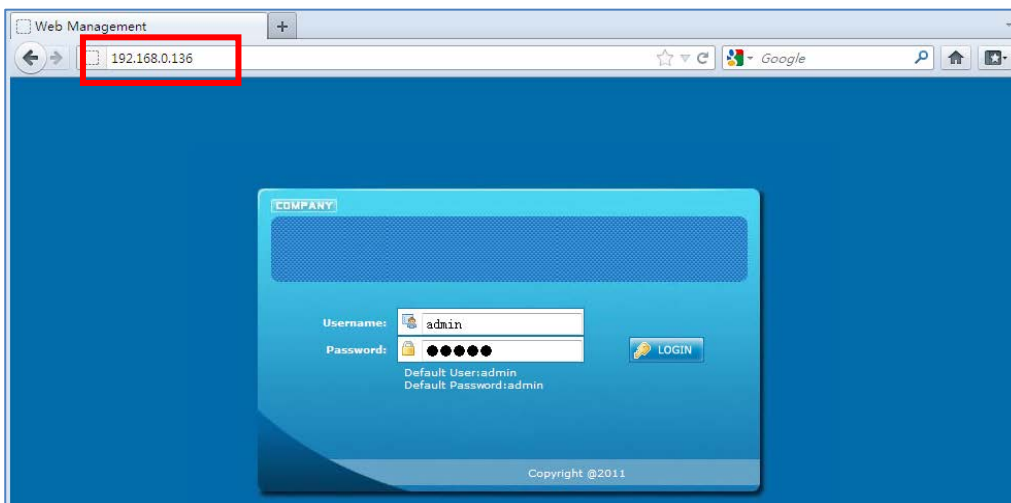
Figure-1

Summary → Status

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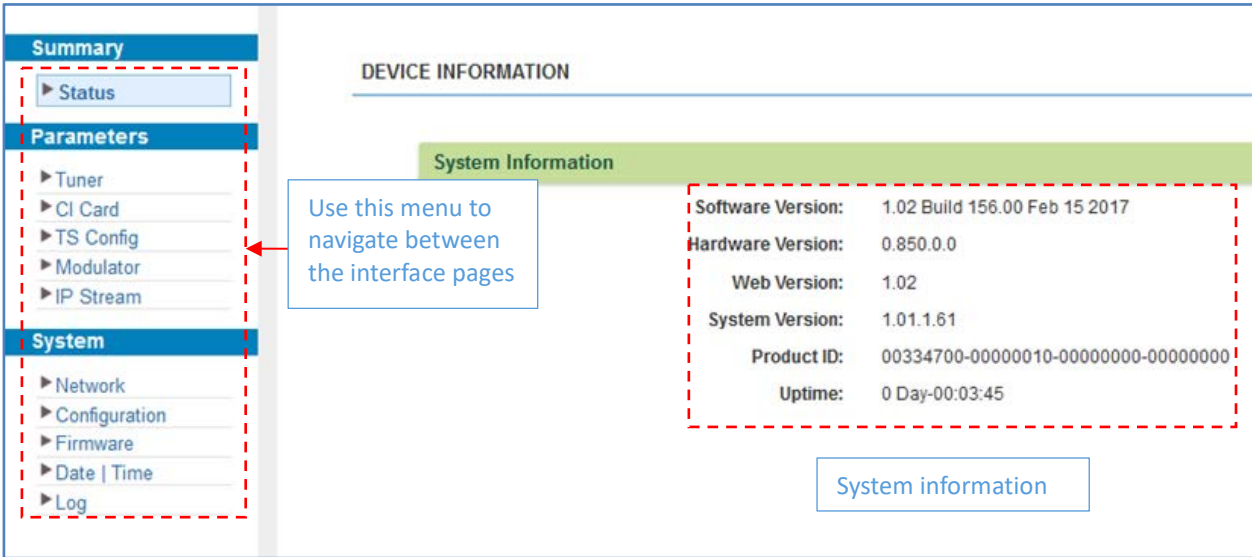
Figure-2

Parameters → Tuner

Use the **Tuner** page to configure the input tuner parameters to receive satellite signals (Figure-3).
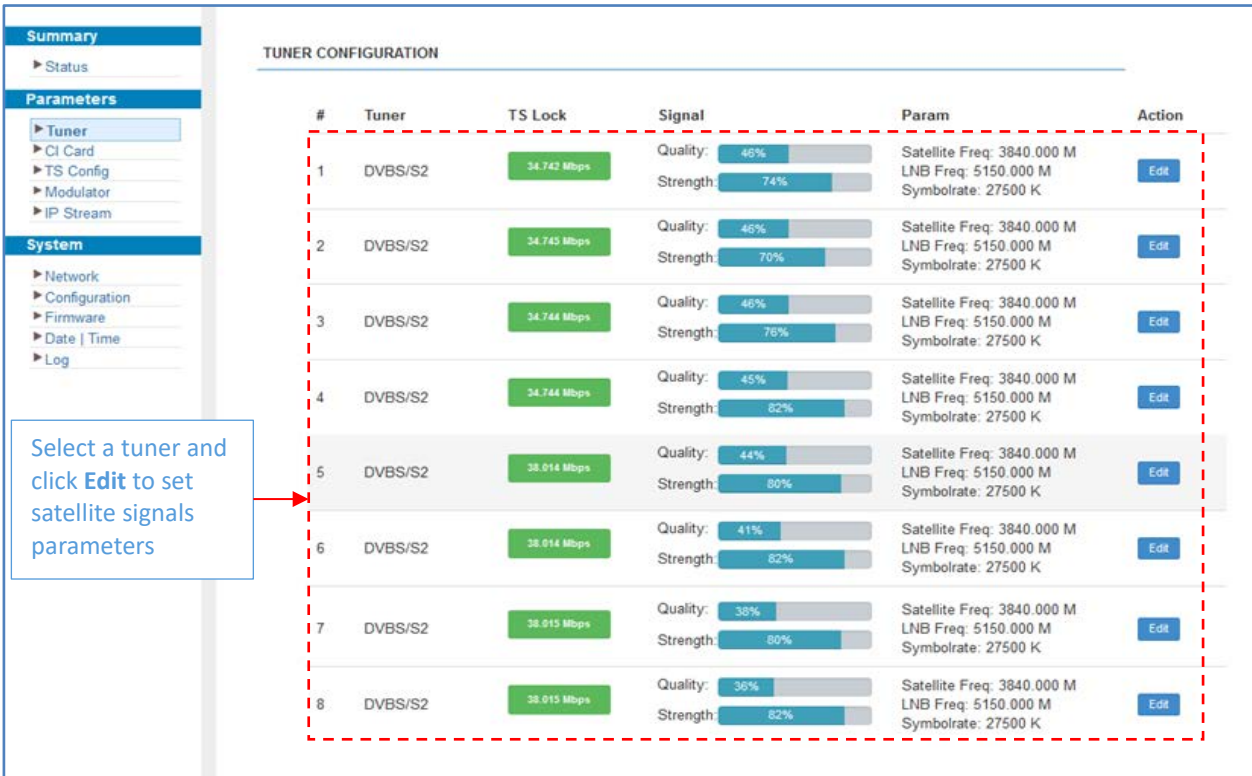

Figure-3

Parameters → CI Card

NetUP Streamer DVB 8xC supports 4 CI cards to descramble programs from Tuner input. Use the **CI Card** page to configure the available CI cards (Figure-4).
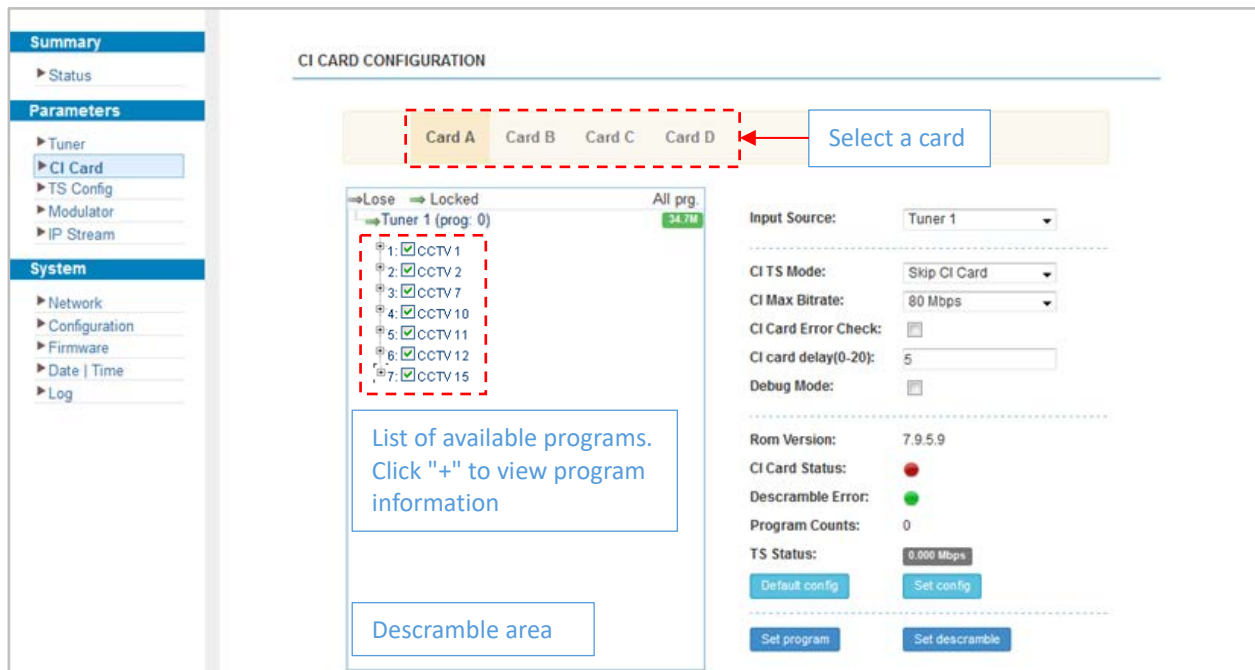

Figure-4

CI TS Mode	You can apply one CI card to descramble programs from the two Tuner input signal sources. "Skip CI card" means to skip the card which is used for FTA stream
CI Max Bitrate	CI Max Bitrate options range from 48 to 108Mbps. Select a value in the list as principle: *actual input bitrate ≤ max bitrate ≤ CI max decrypting capacity*
CI Card Error Check	You can decide whether to enable the card error check function by checking the box
Set config	Apply the input data
Set program	Parse programs from the channel selected in "Input Source". The available programs will be listed in the "Descramble area"
Set descramble	Descrambler programs. The descrambled program quantity depends on the CAM/CI performance you apply to

Parameters → TS Config

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

Output TS

Select the **Output TS X** tab to open the list of available TS channels. Click one of the channels to select it (Figure-5).
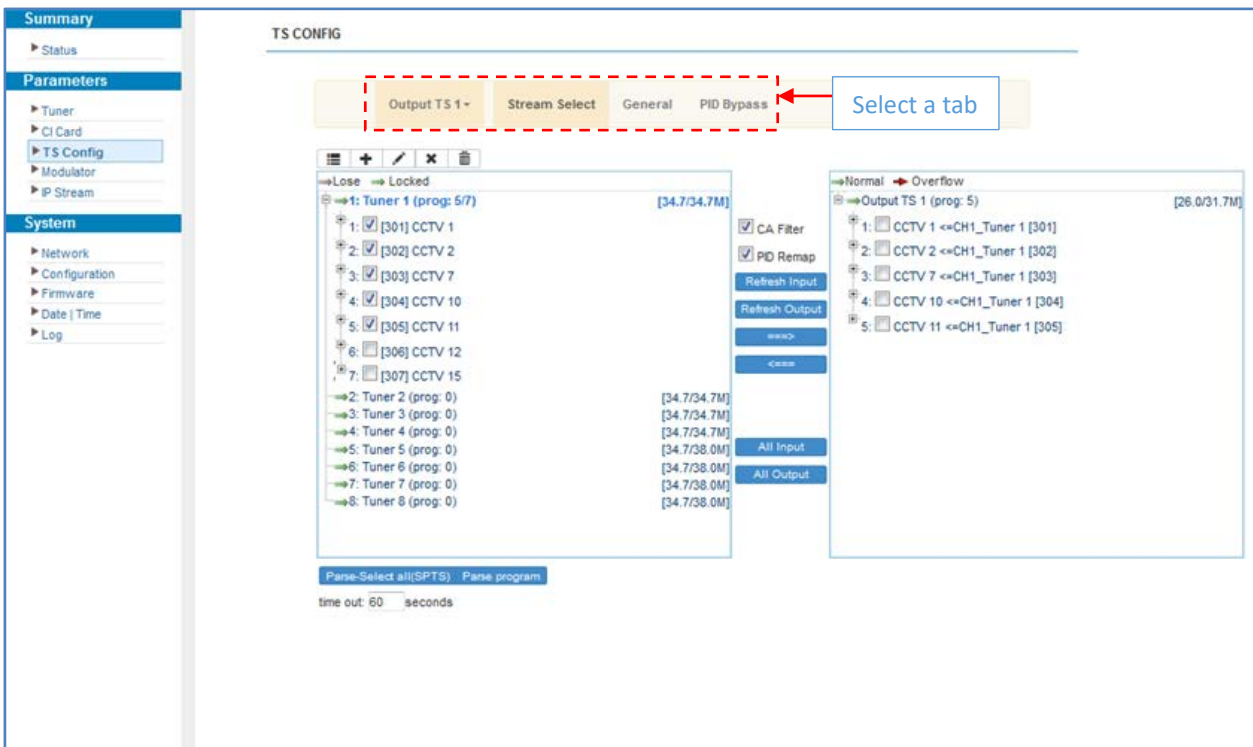

Figure-5

Stream Select

Select the **Stream Select** tab to select streams that should be sent to Mux out (Figure-6).
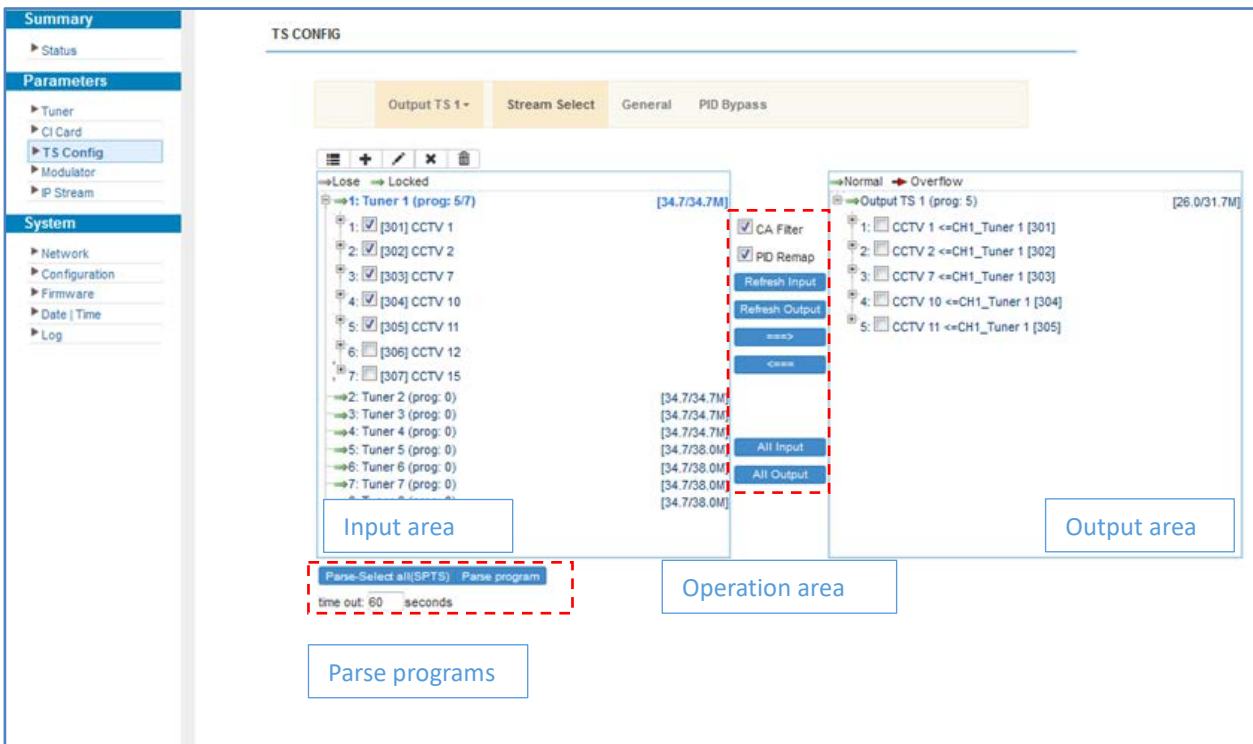

Figure-6

Operation area:

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

General

Select the **General** tab to edit common parameter for output streams (Figure-7).
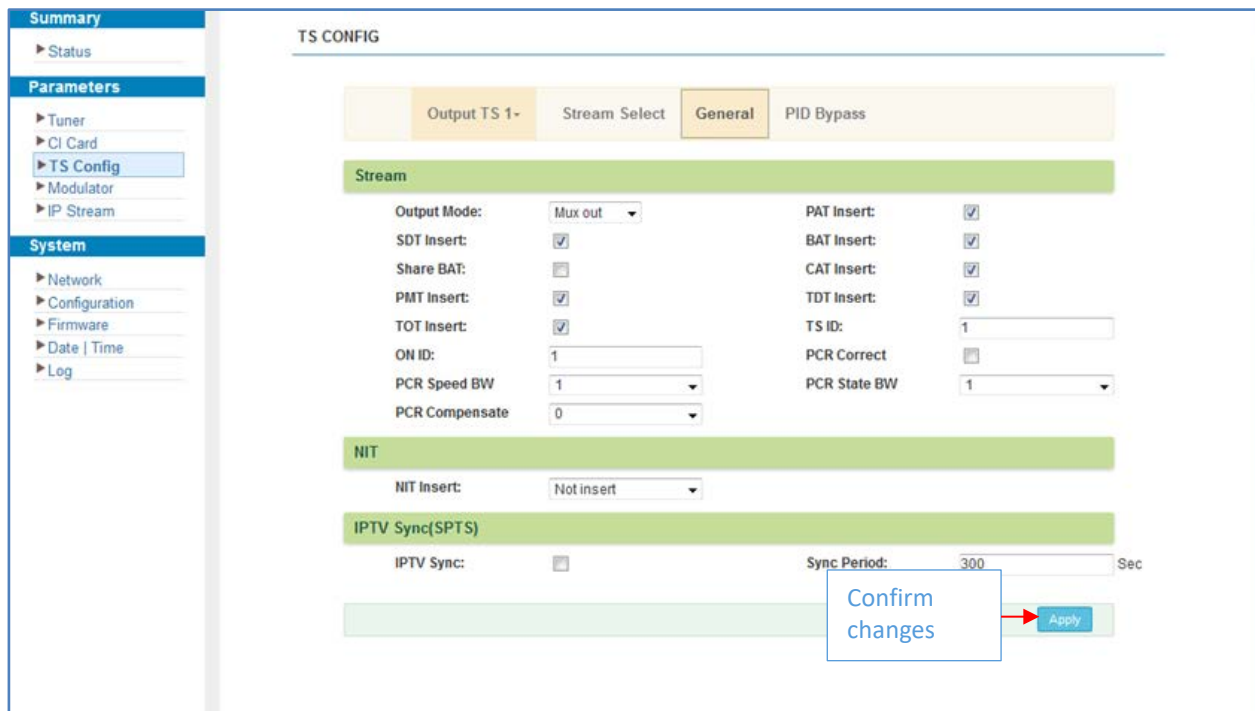
Figure-7

PID Bypass

Select the **PID Bypass** tab to edit the list of PIDs that should pass through (Figure-8).
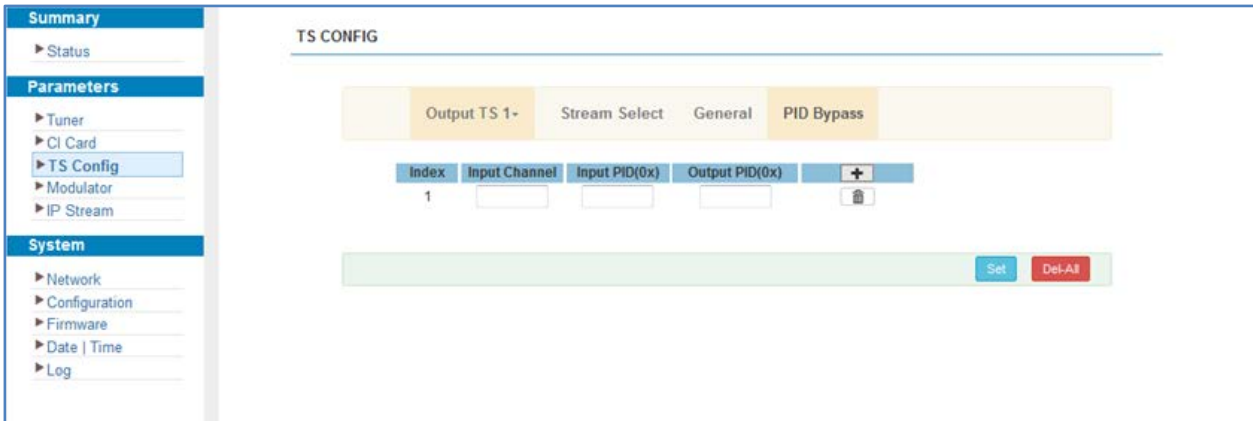
Figure-8

Parameters → Modulator

Use the **Modulator** page to edit RF output parameters (Figure-9).
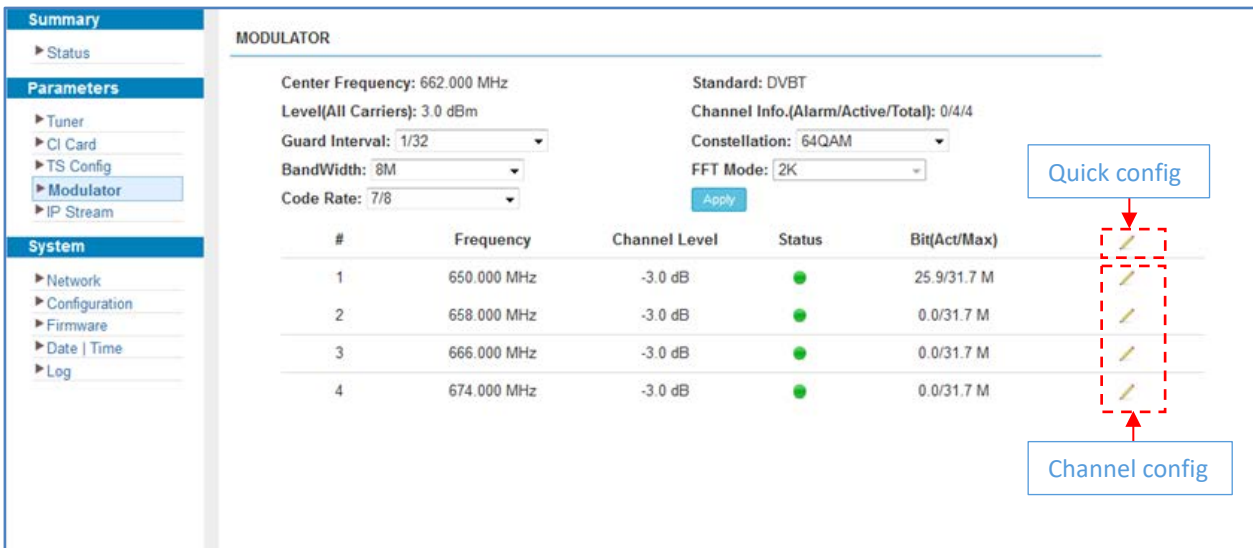
Figure-9

Parameters → IP Stream

NetUP Streamer DVB 8xC supports TS IP output (4×MPTS) via the DATA port. Use the **IP Stream** page to set IP output parameters (Figure-10).

Figure-10

System → Network

Use the **Network** page to edit networking parameters (Figure-11).

Figure-11

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-12).
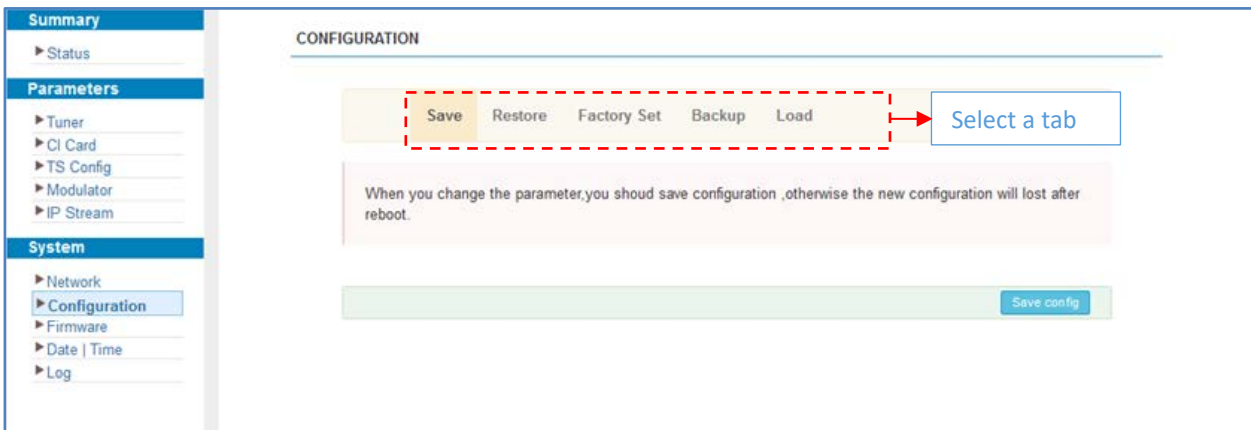

Figure-12

System → Firmware

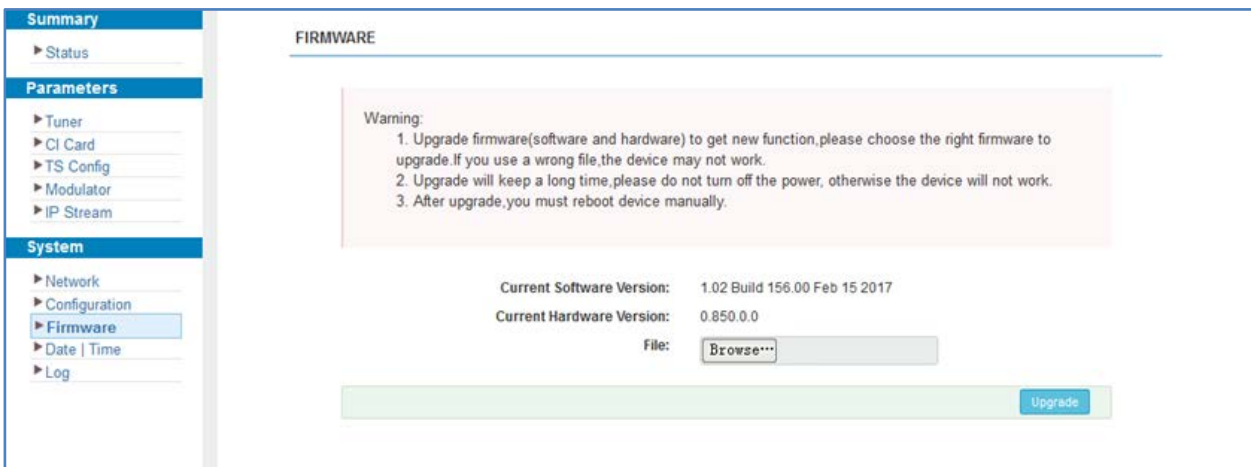Use the **Firmware** page to update firmware for the device (Figure-13).

Figure-13

System → Date | Time

Use the **Date | Time** page to set date and time for the device (Figure-14).
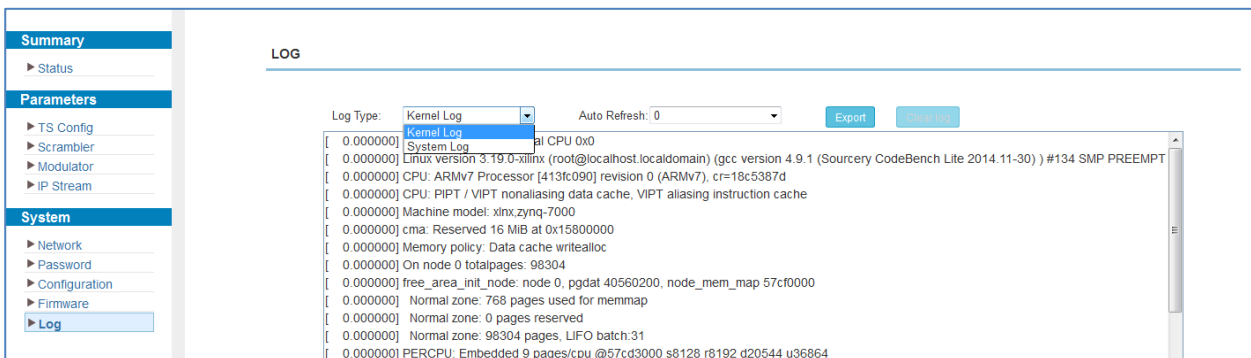

Figure-14

System → Log

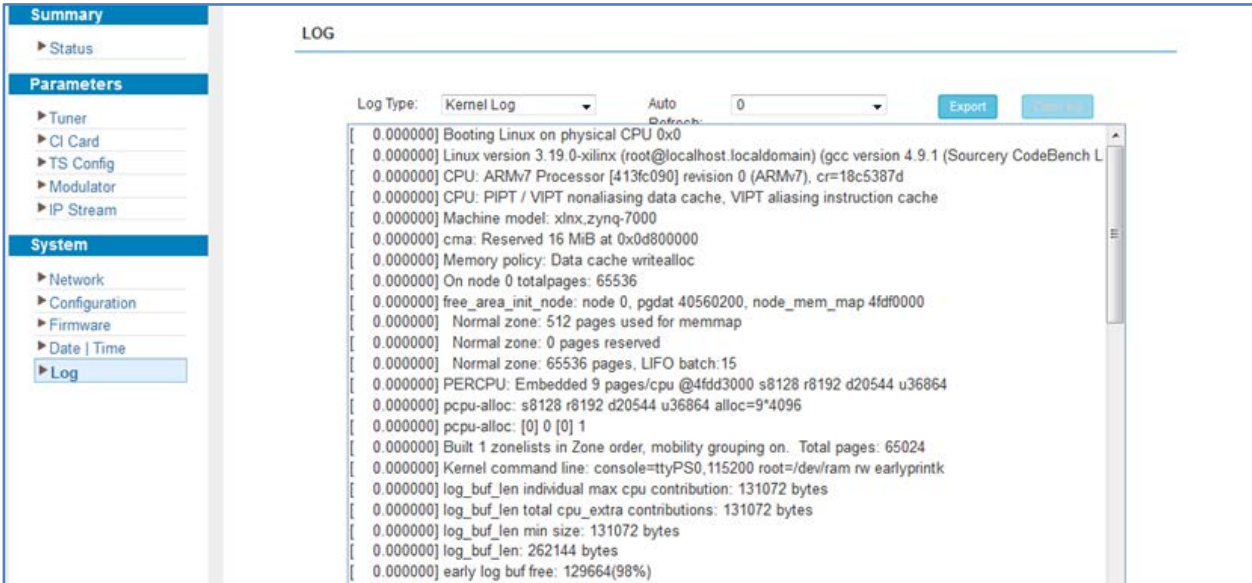Use the **Log** page to see system logs (Figure-15).

Figure-15

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?
- Is the RF output level vary within the tolerant range?
- 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*