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H.265&H.264 4CH/4K30hz HDMI Video Encoder User Manual

Model:

- ZY-EH1304

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1) Overview

1.1 product description

The 4-channel HDMI high-definition encoder is a professional high-definition audio and video encoding product that only requires a small bandwidth to obtain high-definition video signals. This product adopts H.265/H.264/MJPEG encoding format, which can simultaneously encode video and audio. Each channel supports dual stream output, and the output stream resolution of each channel can be set according to different needs, with a maximum support of 2 channels simultaneously 4K@30HZ +2-way 1080P@60HZ Encoder. This device has the advantages of high integration and low cost, and can be widely used in various digital TV broadcasting systems.

1.2 product picture

▲ZY-EH1304

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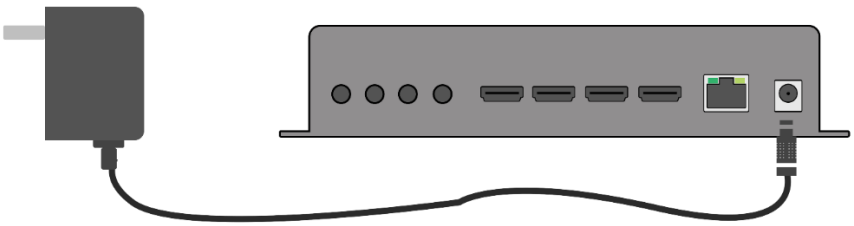
2) Initial installation connection

2.1 Connect power

Use the standard power adaptor (DC12V/1A) connected to the device. The power light will be always on after the device is powered on.

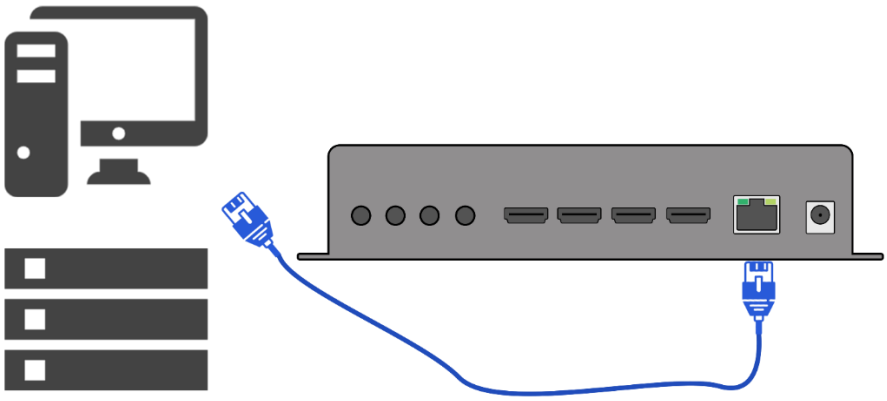


Note

Please use the standard power adaptor provided. Using other unqualified power supplies may damage the device.

2.2 Connect the encoder to user's computer directly

▼Connect the encoder and the computer directly through the network cable.



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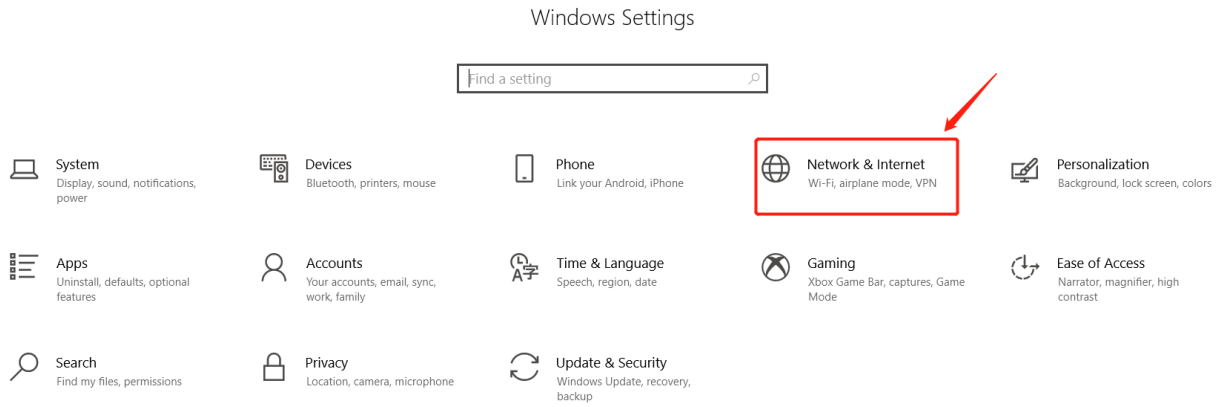
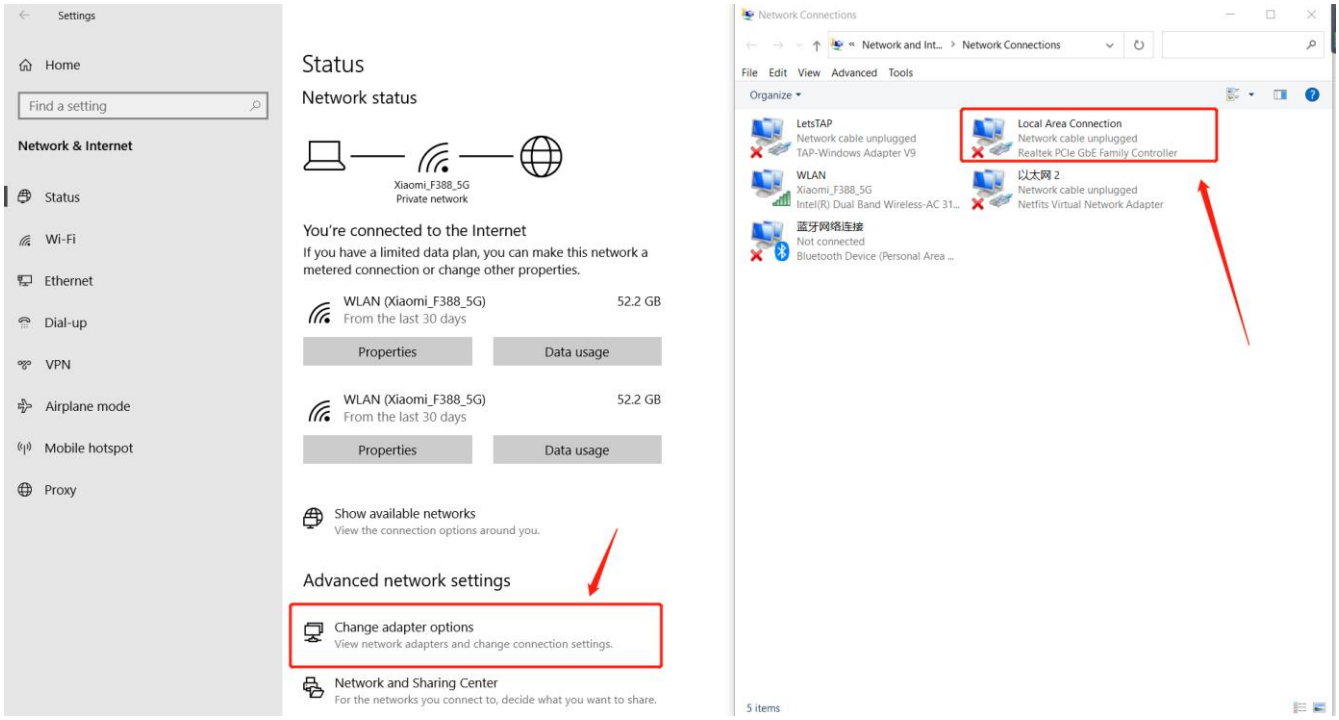
2.3 Log in the control web with 192.168.0.31

According to the above steps, after connecting the encoder to the computer with a network cable.

▼ Setp1: find the "Network & Internet Settings"



▼ Step2: "change adapter options"——"Local Area Connection"



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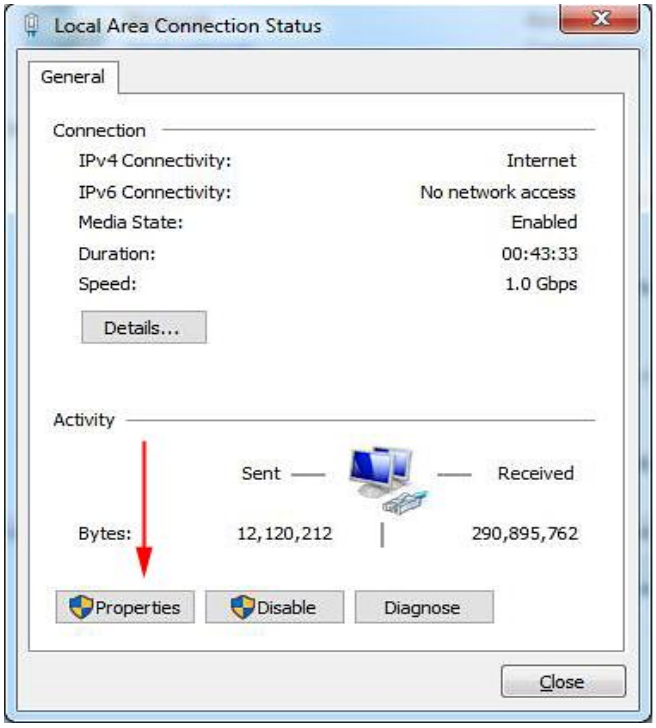
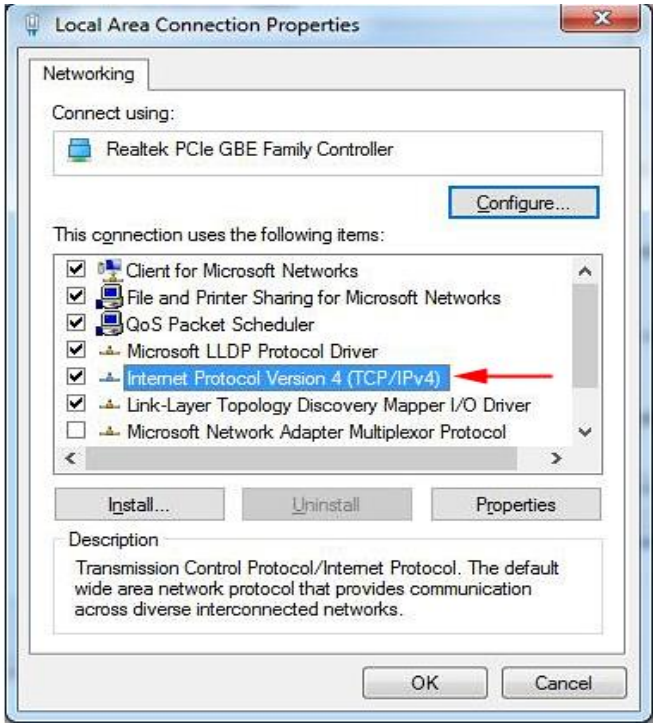
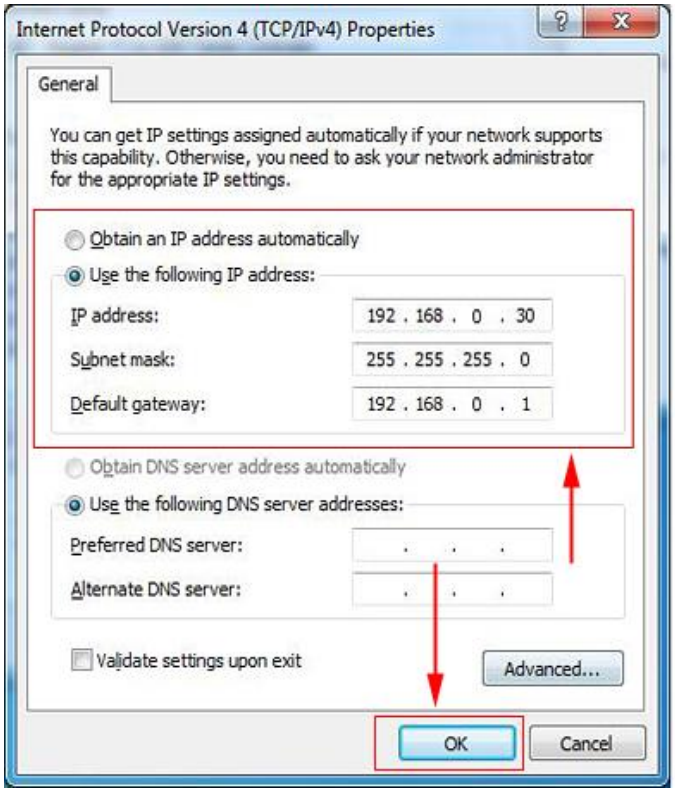
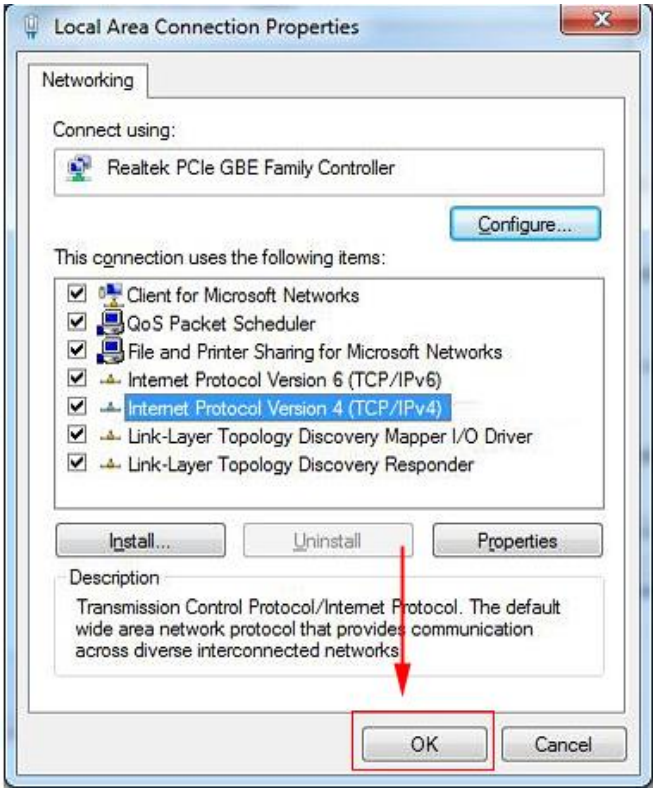
▼ Step3: "Properties"——"Internet Protocol Version (TCP/IPv4)"





▼ Step4: change the IP to 192.168.0.XXX—— "OK"





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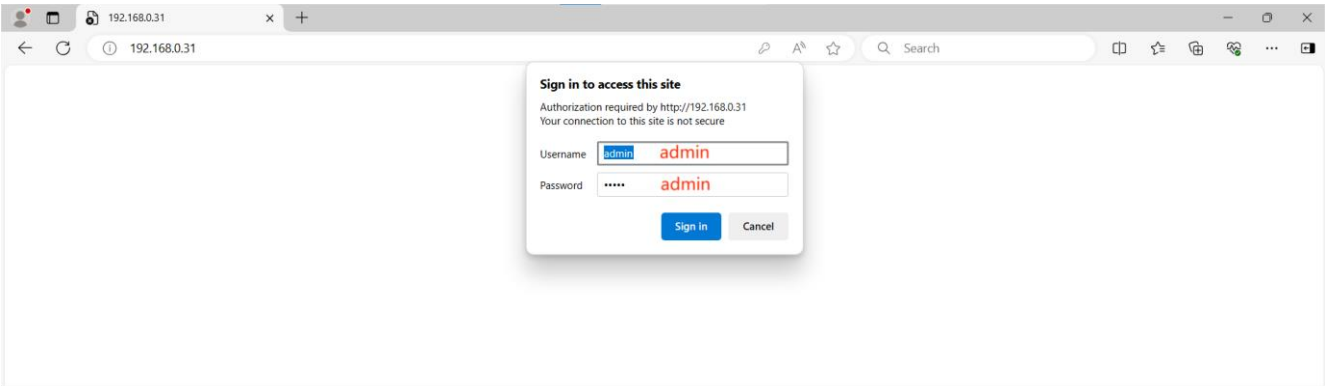
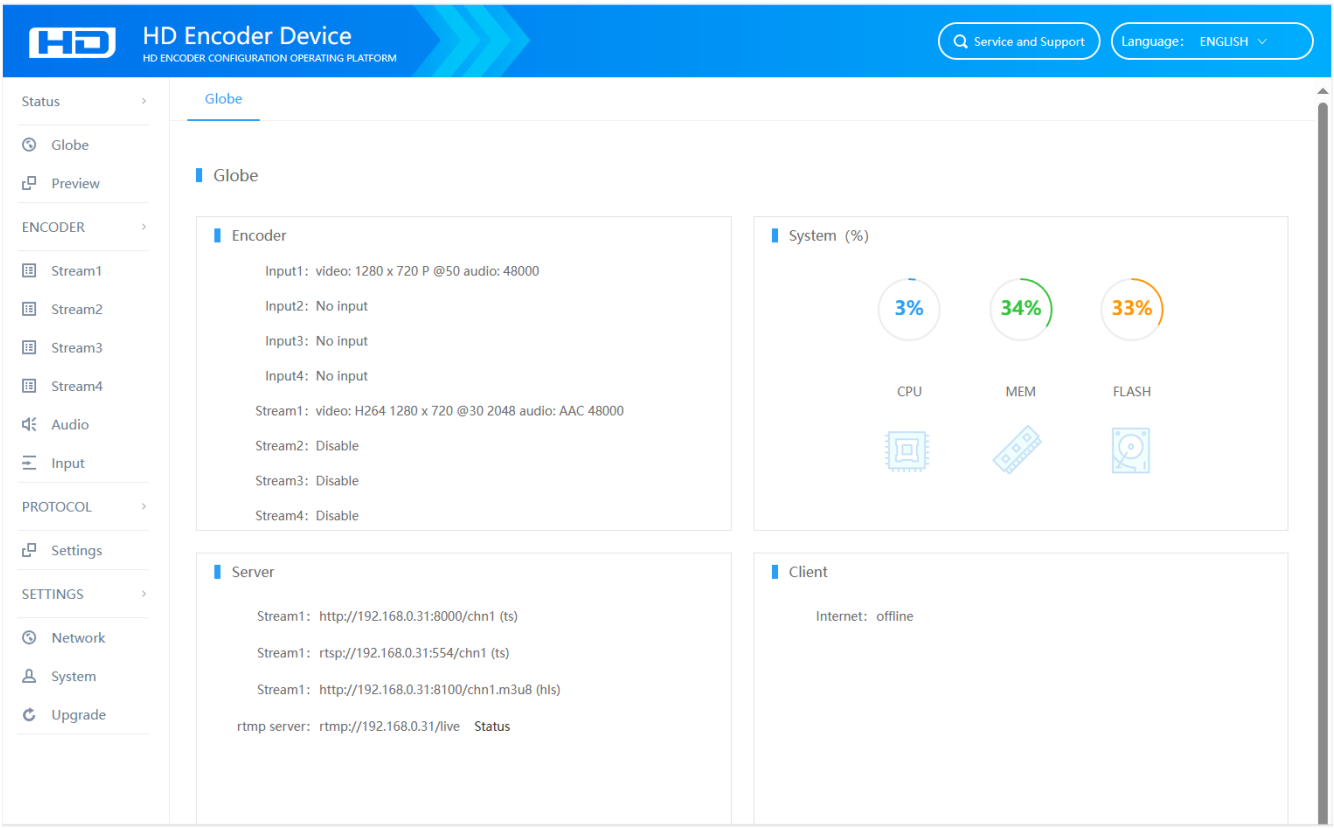
▼ Step5: Open the WEB browser, and enter the IP address of the decoder directly (the default is 192.168.0.31) to open the login interface of the decoder. The default username and password of the decoder is admin/admin and then click "Login".



3) Introduction to the control page of the encoder

3.1 Status

▼ Status: Showing the status information of input and output.



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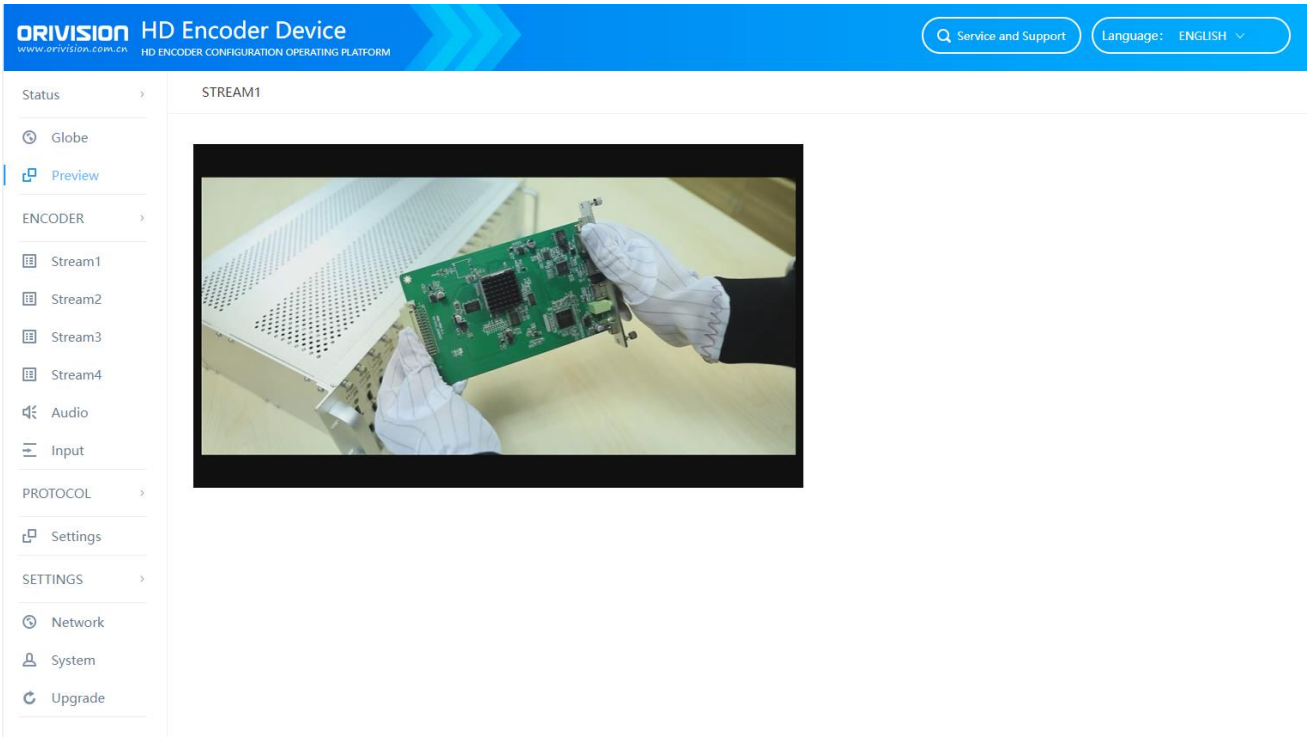
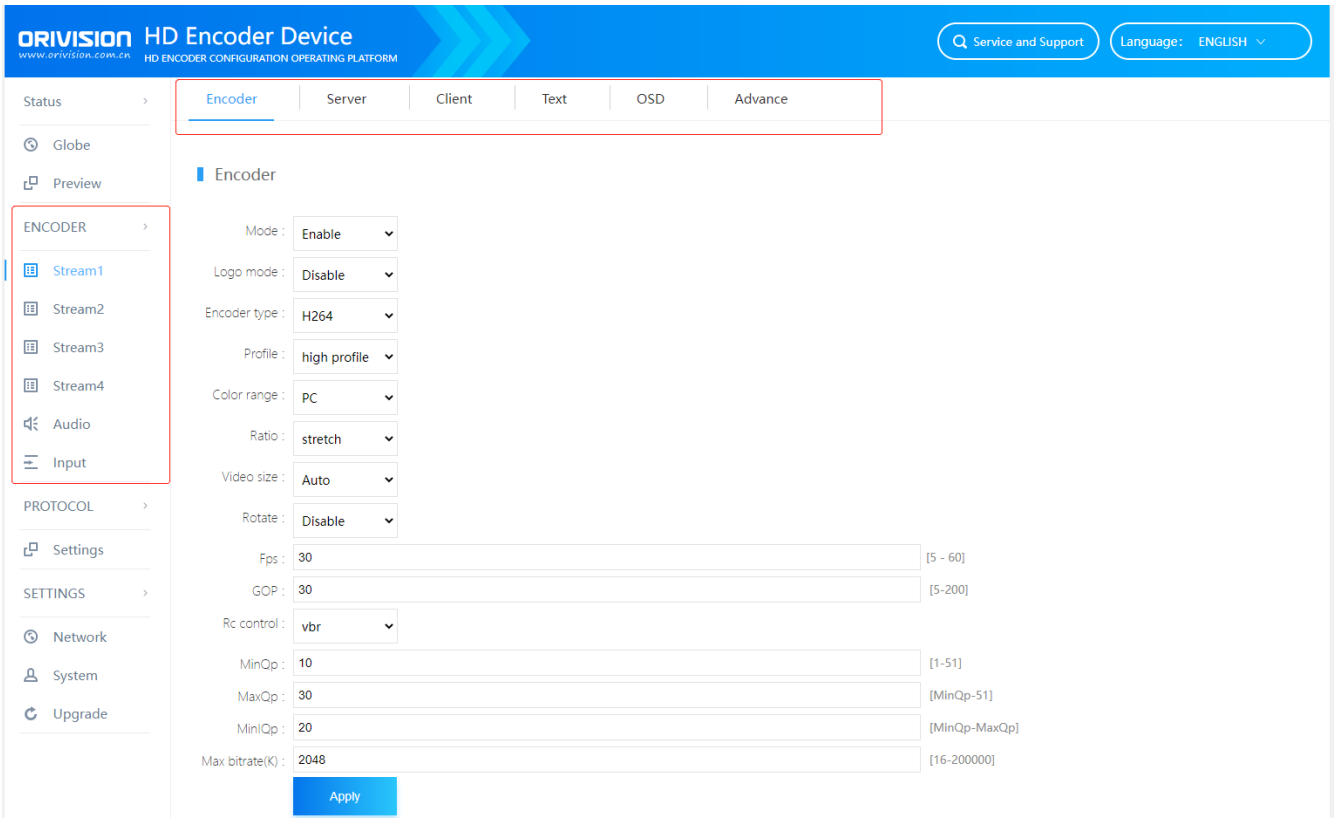
▼ Users can preview the input video through this page. If there is a delay it is normal, because of network factors



3.2 ENCODER Settings

3.2.1 Streams setting

▼ The left-hand column shows the settings for the 4 stream outputs and audio, as well as the setting functions for the input signals



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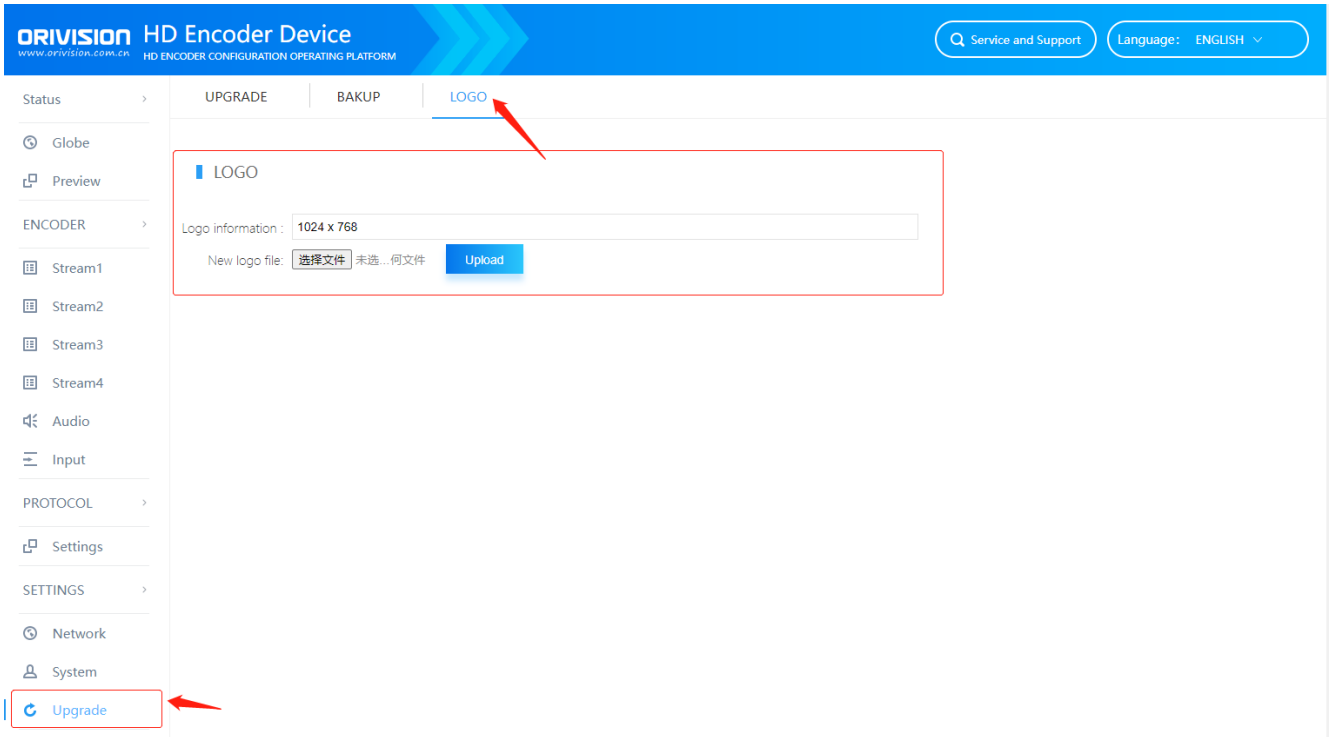
Mode: Disable | Enable | Video only| Audio only
"Enable" is the default encoding for video and audio
"Video only" is for video-only encoding
"Audio only" is for audio-only encoding
Encoder type: H264/H265/MJPEG
Profile: baseline profile / main profile / high profile (Note: H.265 version choose main profile)
Color range: PC/TV
Ratio： stretch/no change
Video size for Stream1&Stream2&Stream3&Stream4:
480*270/640*360/640*480/704*576/720*404/720*480/720*540/720*576/800*600/850*480/960*540/1024*576/1024*768/1280*768/1280*800/1280*720/1920*1080/Auto
Rotate: Disable/90/180/270
Fps for Stream1&Stream2&Stream3&Stream4: 5-60 (Note: when the input resolution is 720i/50,1080i50, the frame rate will choose 25)
Gop: 5-200, it shows picture quality, default setting is advisable.
Rate control: VBR / CBR
MinQp: 1-51
MaxQp: MinQp-51
MinIQp: [MinQp-MaxQp]
Max bitrate(K): [16-200000]
Logo mode: Disable | No input | Always
This function can be enabled when the user needs to display a specified image on the decoder side
When "No input" is selected, the decoder or VLC player output will display the image uploaded by the user when there is no signal input from the encoder.
When "Always" is selected, the decoder or VLC player output will display the user uploaded image regardless of whether there is a signal input or not.



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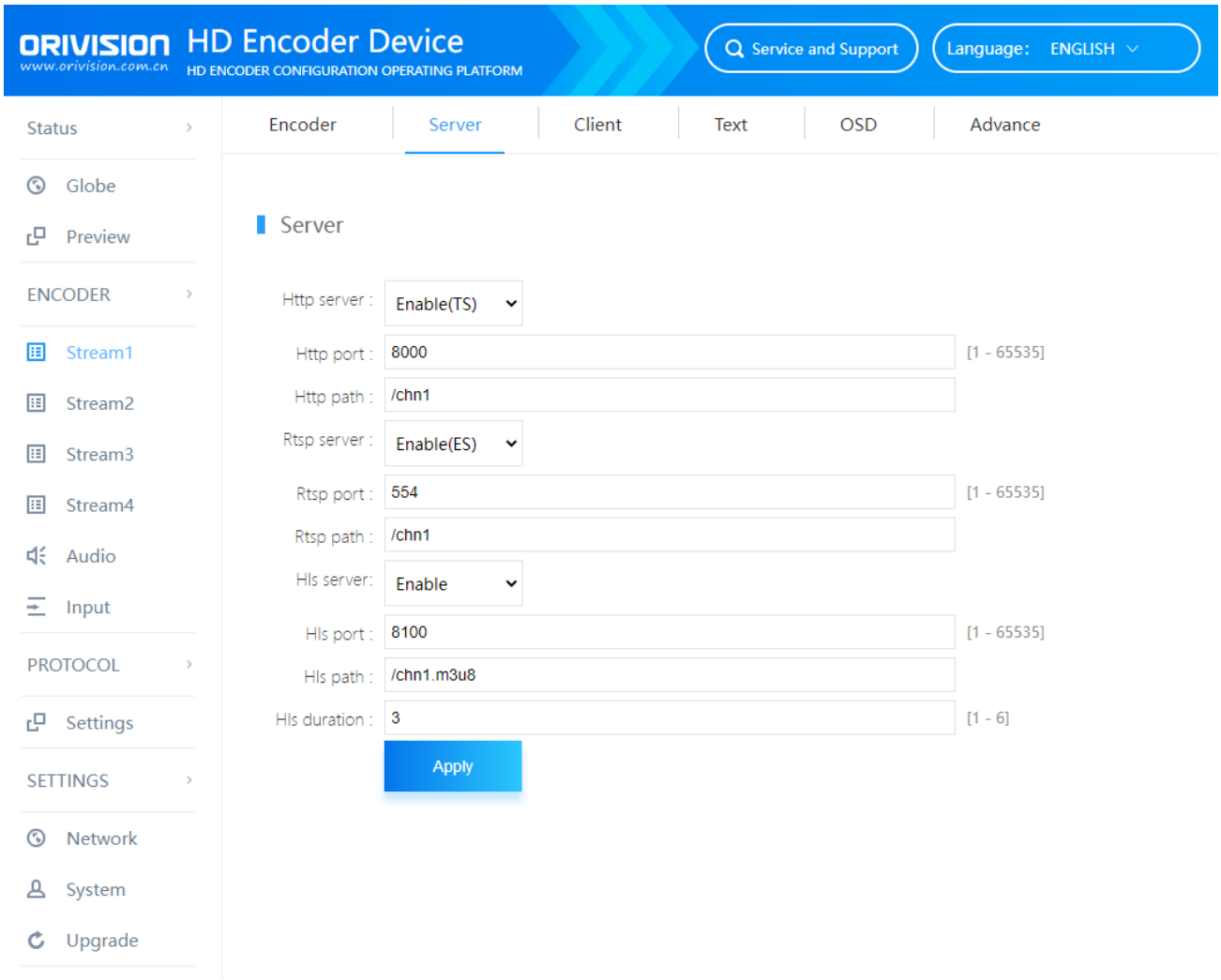
3.2.2 Server Setting (HTTP/RTSP/HLS Protocols)



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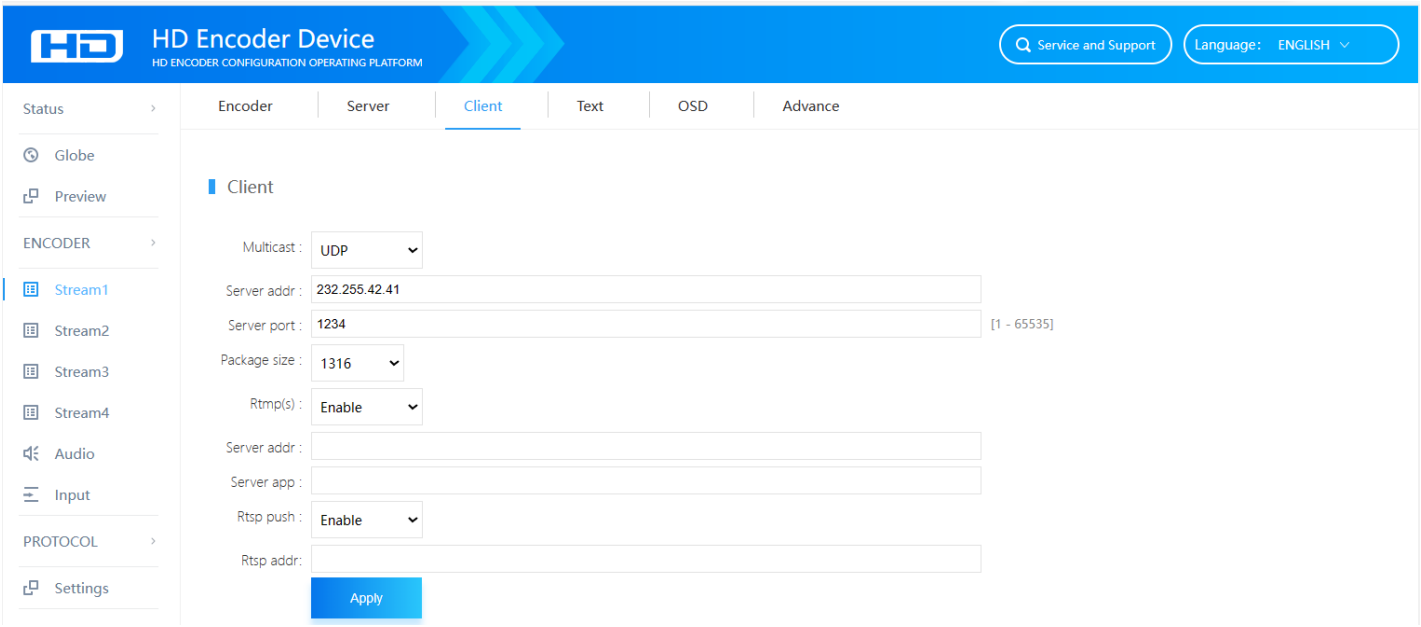
HTTP Server: Disable/Enable (TS)/ Enable (FLV)
HTTP port: 1-65535 optional; default is 8000
HTTP path: Modifiable
RTSP server: Disable/Enable (TS)/Enable (ES)
RTSP port: 1-65535 optional; default is 554
RTSP path: Modifiable
HLS server: Disable/Enable
HLS port: 1-65535 optional; default is 8100
HLS path: Customization
HLS Duration: 1-6 optional; default is 3

Note
The encoder needs to be rebooted after the above changes.

3.2.3 Cliet Setting/ Pushflow settings (Multicast /RTMP/RTMPS/RTSP)



When users need to use multicast or RTMP or RTSP protocols, they can set them on this page.
Multicast: Disable/UDP/RTP optional
Server addr: Fill in the multicast address
Server port: 1-65535 optional; default is 1234
Package size: 564/940/1316
Rtmp(s): Disable/ Enable/Video Only/Audio only
Server addr: Fill in the RTMP/RTMS server address
Server app: Fill in the secret key of the RTMP/RTMPS server
Rtsp push: Disable/ Enable
Rtsp addr: Fill in the RTSP server address

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RTMP setup example:

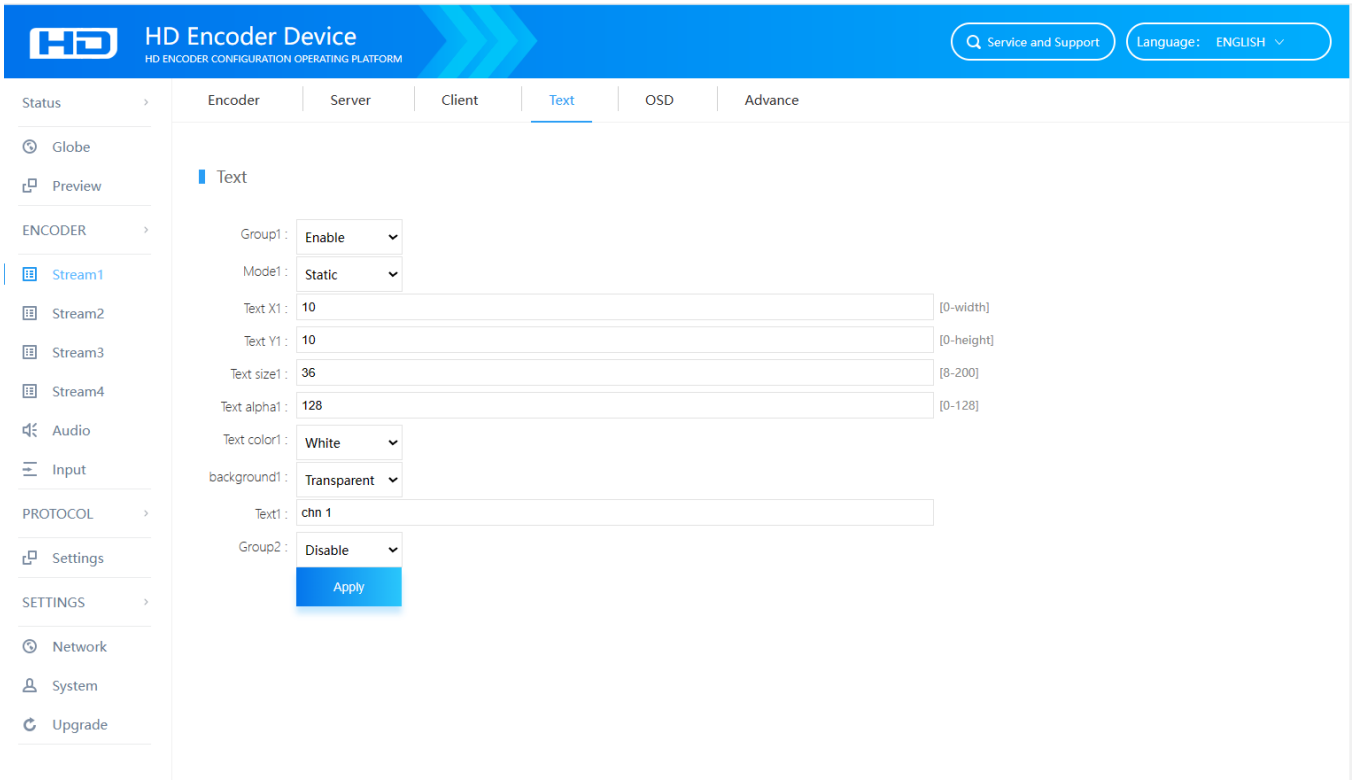
For example, the RTMP push stream address is as follows
rtmp://p1bj.weizan.cn/v/820595698_132282802989672874?t=471b0

Server addr: rtmp://p1bj.weizan.cn/v
Server app： 820595698_132282802989672874?t=471b0

RTSP setup example:

Rtsp addr: rtsp://192.168.10.113:8554/stream

3.2.4 Text Setting: Supports two groups of text input settings

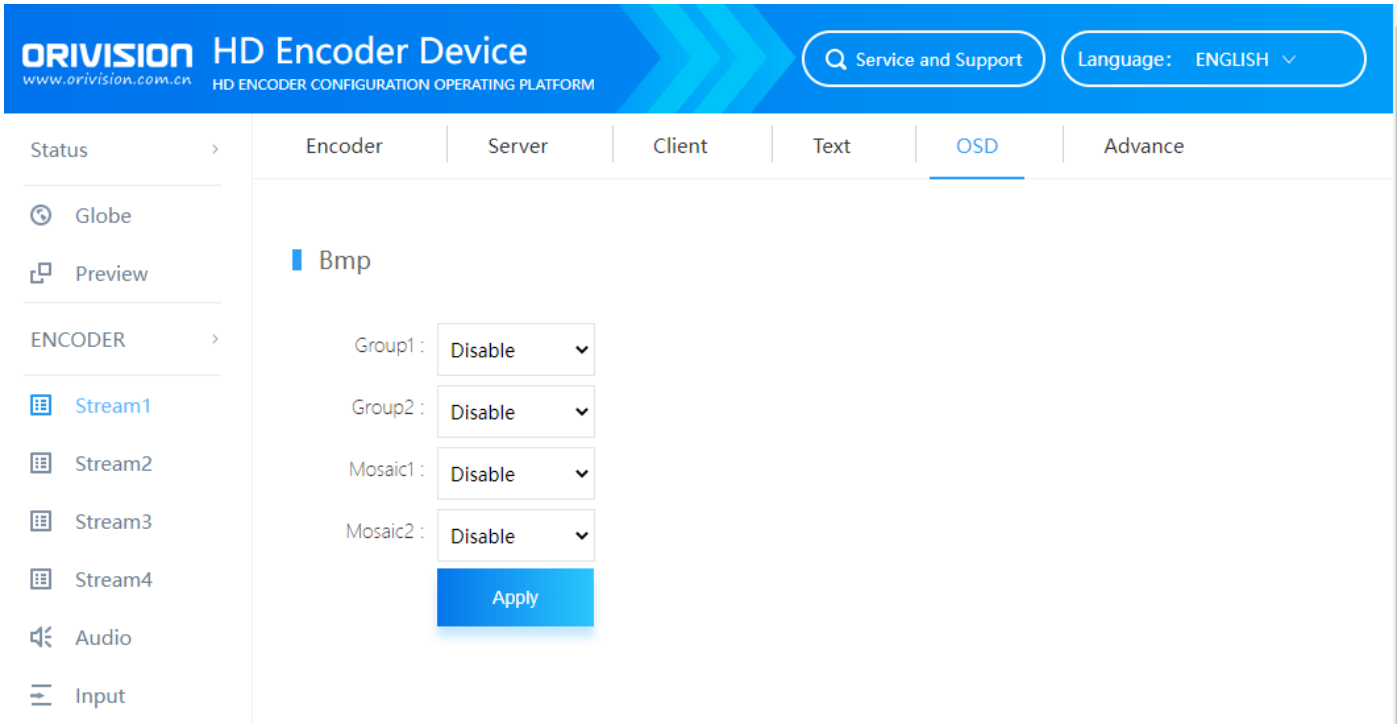


Group1: Disable/ Enable
Mode1: Static/ Slide to right/ Slide to left
Text X1: 0-width is optional, display the left and right position of the text
Text Y1: 0-height is optional, display the up and down position of the text
Text size1: 8-200 is optional
Text alpha1: 0-128 is optional
Text color1: Colour of text displayed on video
Background1: Background colour of text displayed on video
Text1: the content of the text you want

Note
Each stream has two groups of texts can be set.

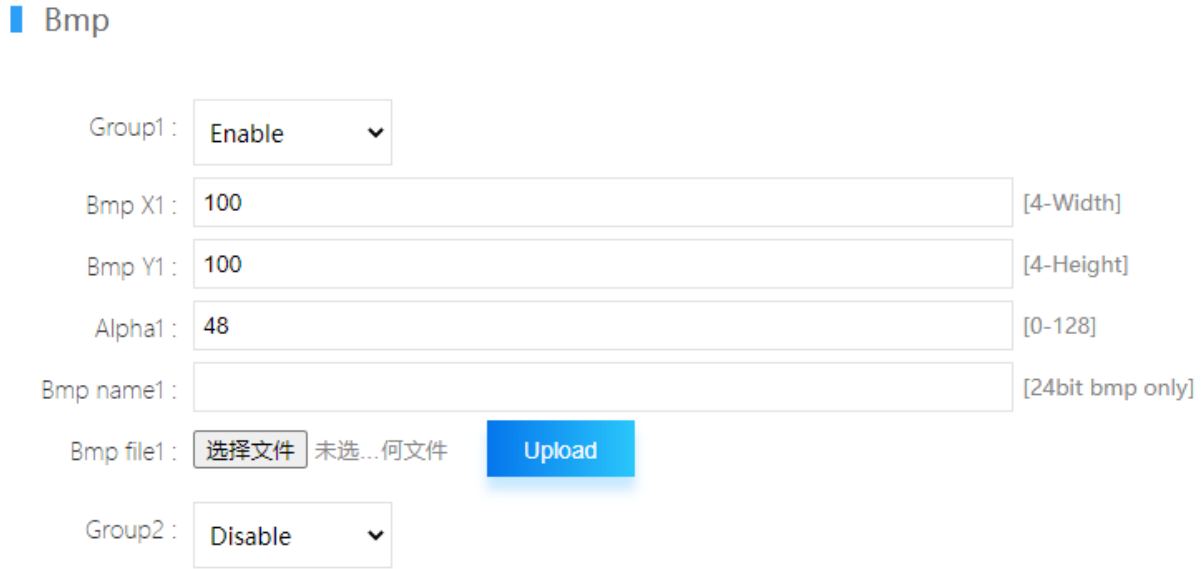
3.2.5 OSD Setting

User can upload the station logo, picture, etc. through the OSD, and it supports the JPG format.



Note

Each stream has two groups of OSD can be set.



Group1: Disable/ Enable

Bmp X1: 4-Width; display the left and right position of the picture

Bmp Y1: 4-Height; display the up and down position of the picture

Alphal: 0-128 is optional; Adjusting the transparency of an image

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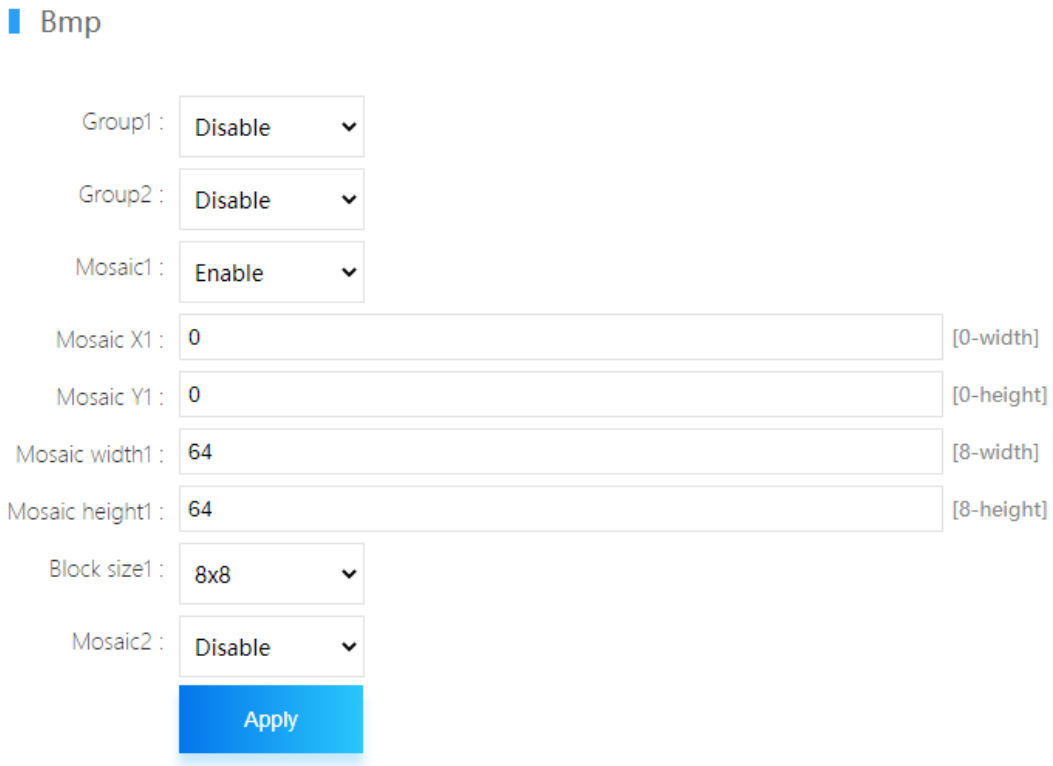
Bmp name1: display the name of the Group1
Bmp file1: choose to upload the image, support bmp format of the picture less than 1M

Set a partial mosaic on the video screen



Mosaic 1: Disable/ Enable
Mosaic X1: 0-Width; display the left and right position of the mosaic
Mosaic Y1: 0-Height; display the up and down position of the mosaic
Mosaic width1: 8-width;
Mosaic height1: 8-height;
Block size1: 8x8/ 16x16/ 32x32 optional

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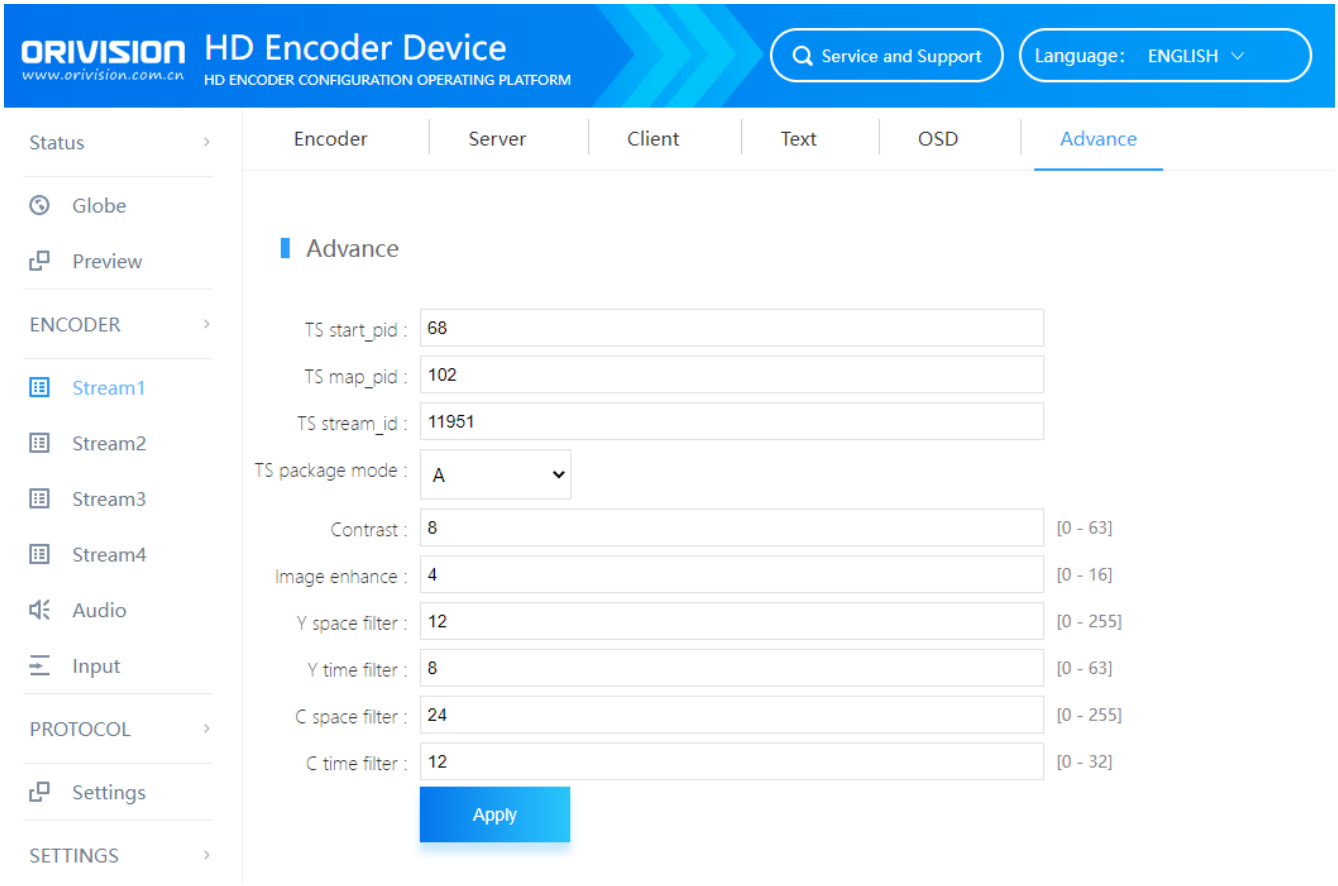
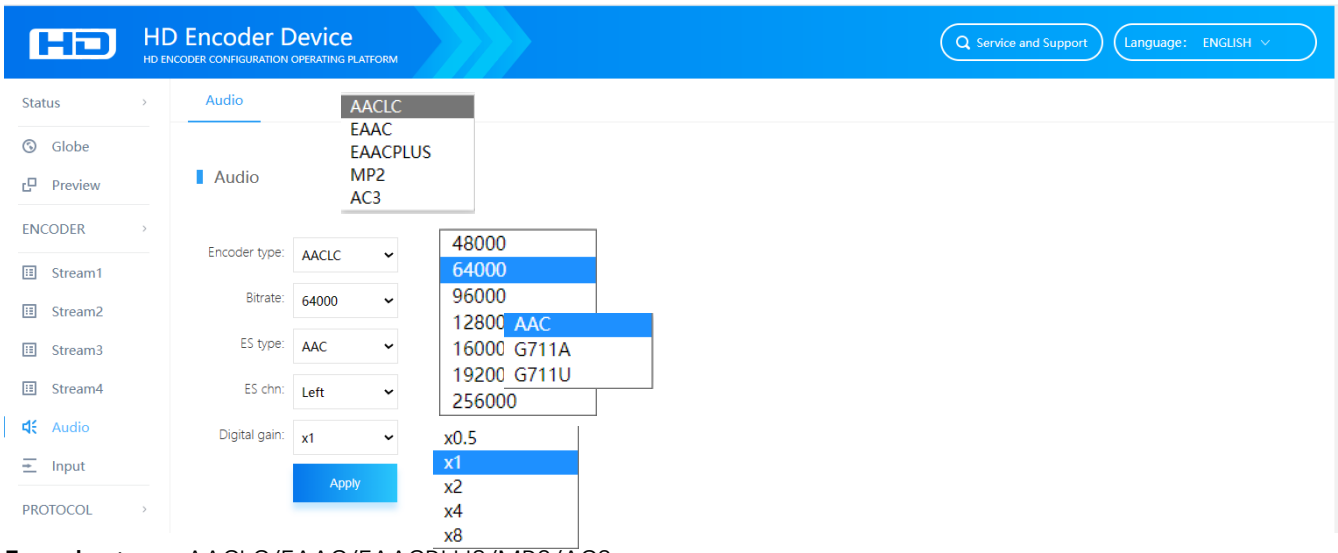
▼ Advance Setting



3.3 Audio Setting



Encoder type: AACLC/EAAC/EAACPLUS/MP2/AC3
Bitrate: 48000/64000/96000/128000/160000/192000/256000 optional
ES type: AAC/G711A/G711U optional
ES chn: Left/Right
Digital gain: X0.5/X1/X2/X4/X8

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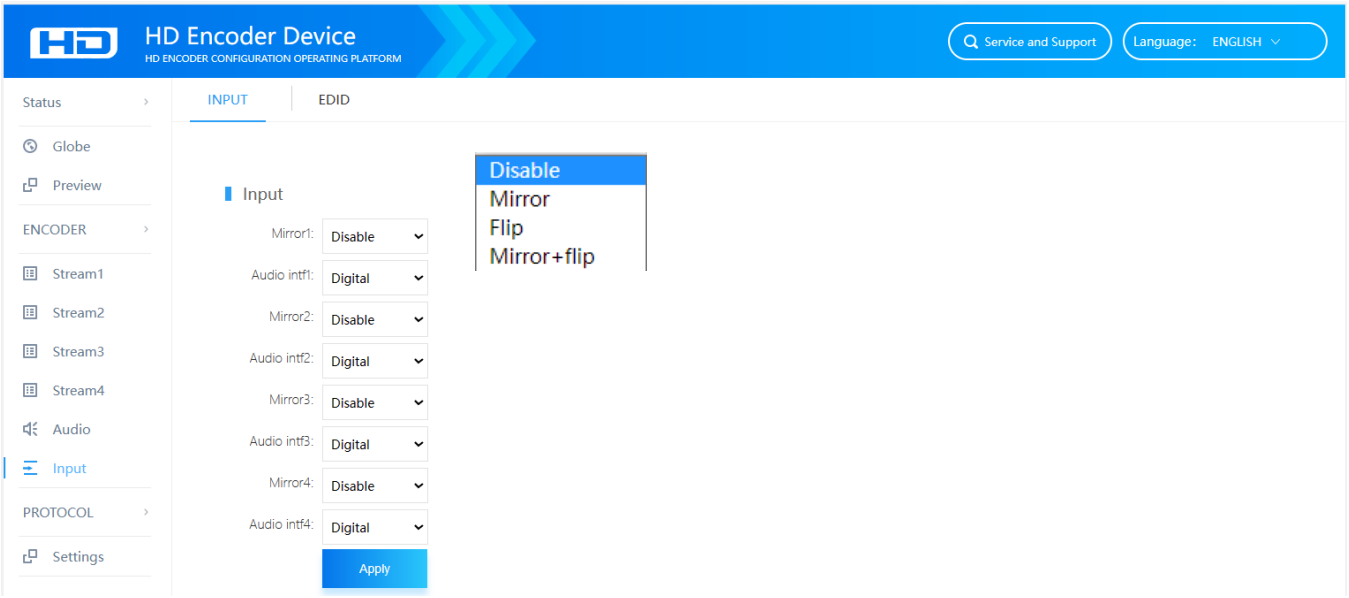
3.4 Input Setting



Mirror: Screen mirroring settings for the input signal source
Mirror is Left and right mirroring
Flip is Top and bottom mirroring
Mirror+flip is Left-right and up-down mirroring
Audio intf: Digital/Analog
Digital means that the input audio source is the video's built-in audio
Analog means that the input audio source is an external audio

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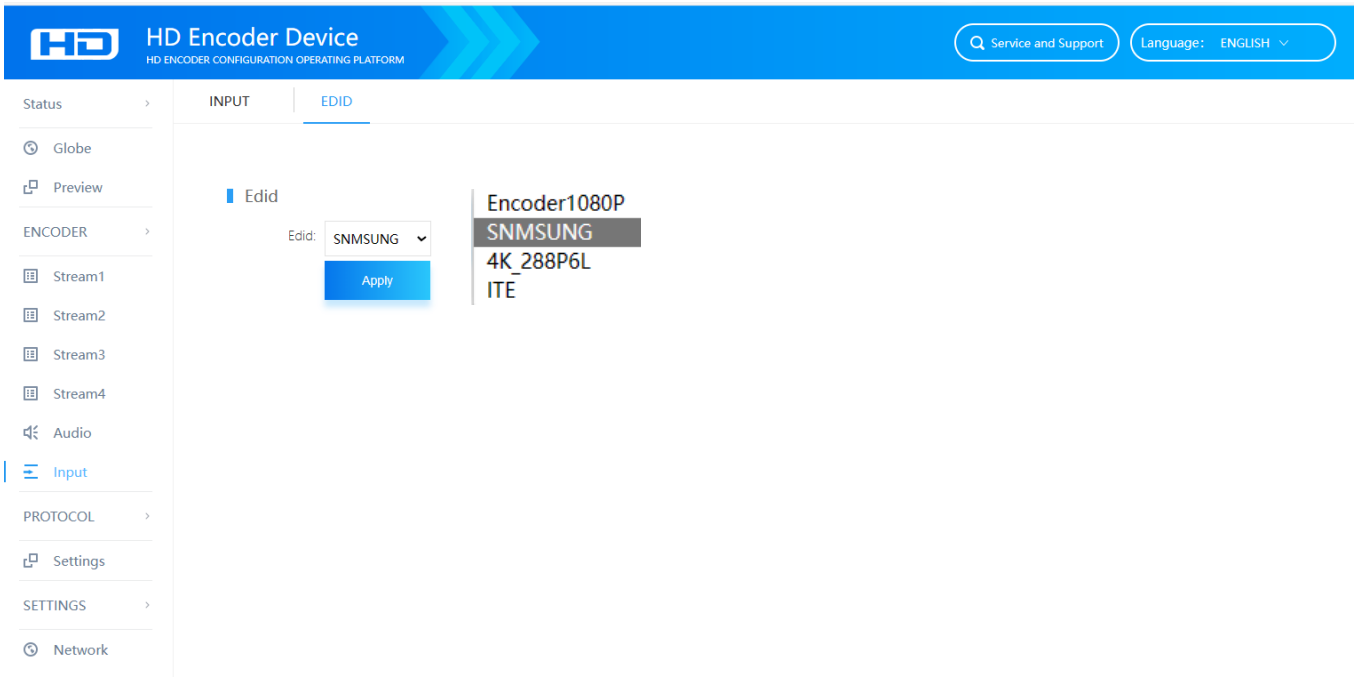
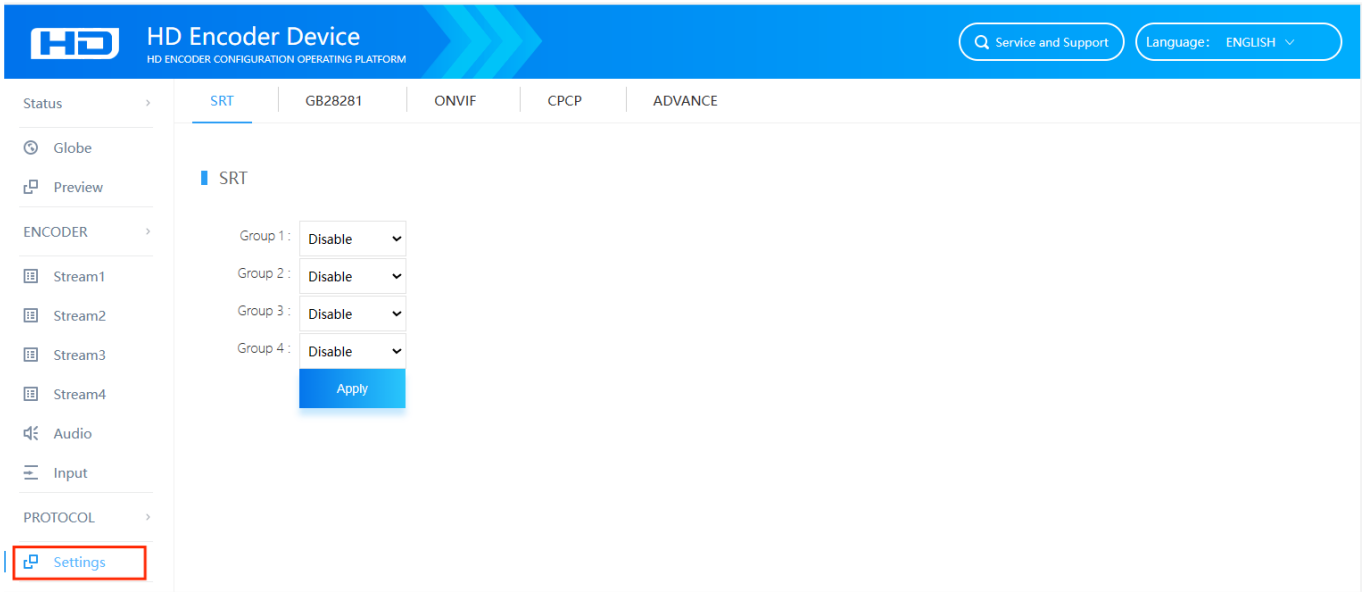
3.4.1 EDID function

Four default EDID modes are available for selection, users can choose it according to their needs, if the default mode can't meet the user's needs, the user can contact our technical department to add a new EDID mode (support@orivision.cn)



3.5 Protocol Setting: SRT/ONVIF protocols



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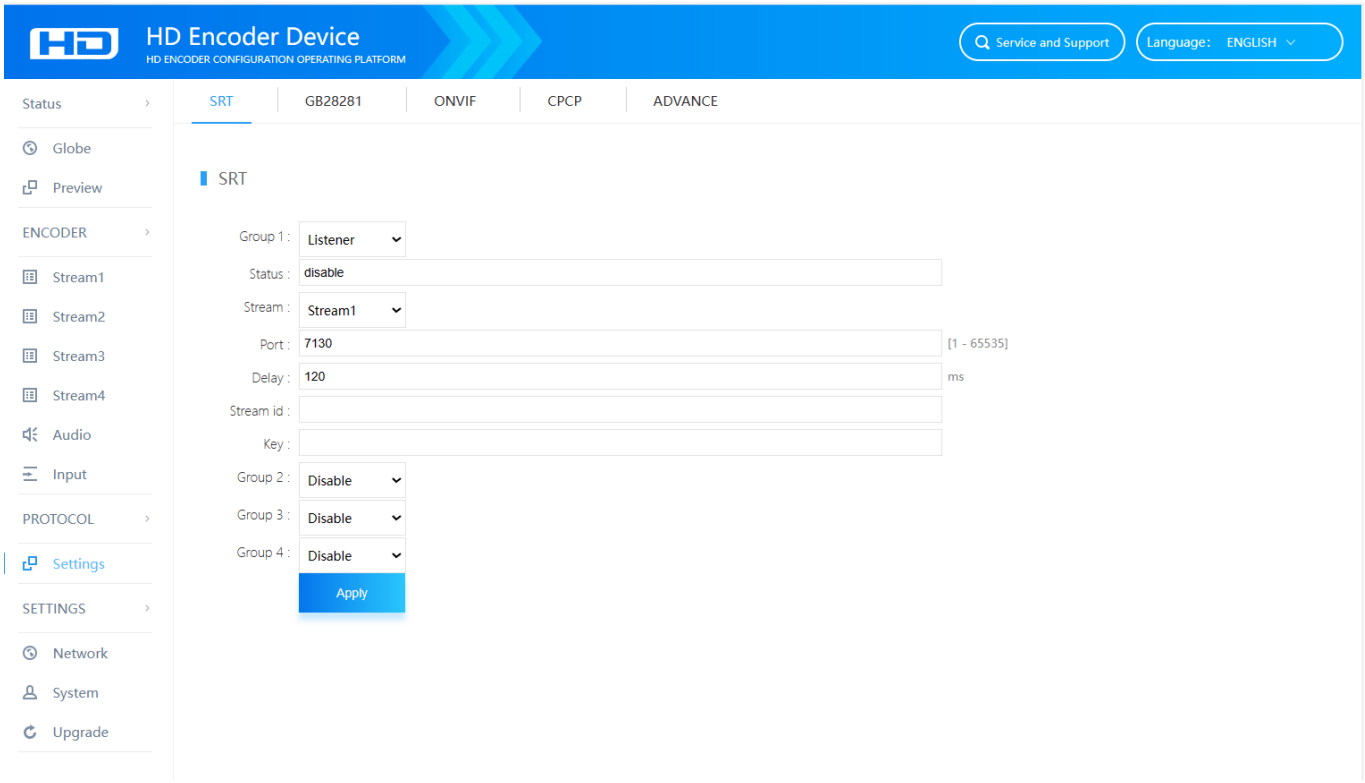
3.5.1 Listener model of SRT protocol



When SRT is selected as Listener mode,

Status: Display the status of the SRT

Stream: choose stream1~4

Port: [1 - 65535], 7130 is default; It is recommended to set the port larger than 1024 if the user want to change it

Delay: 120 is default

Stream ID:

Key: Set encryption password

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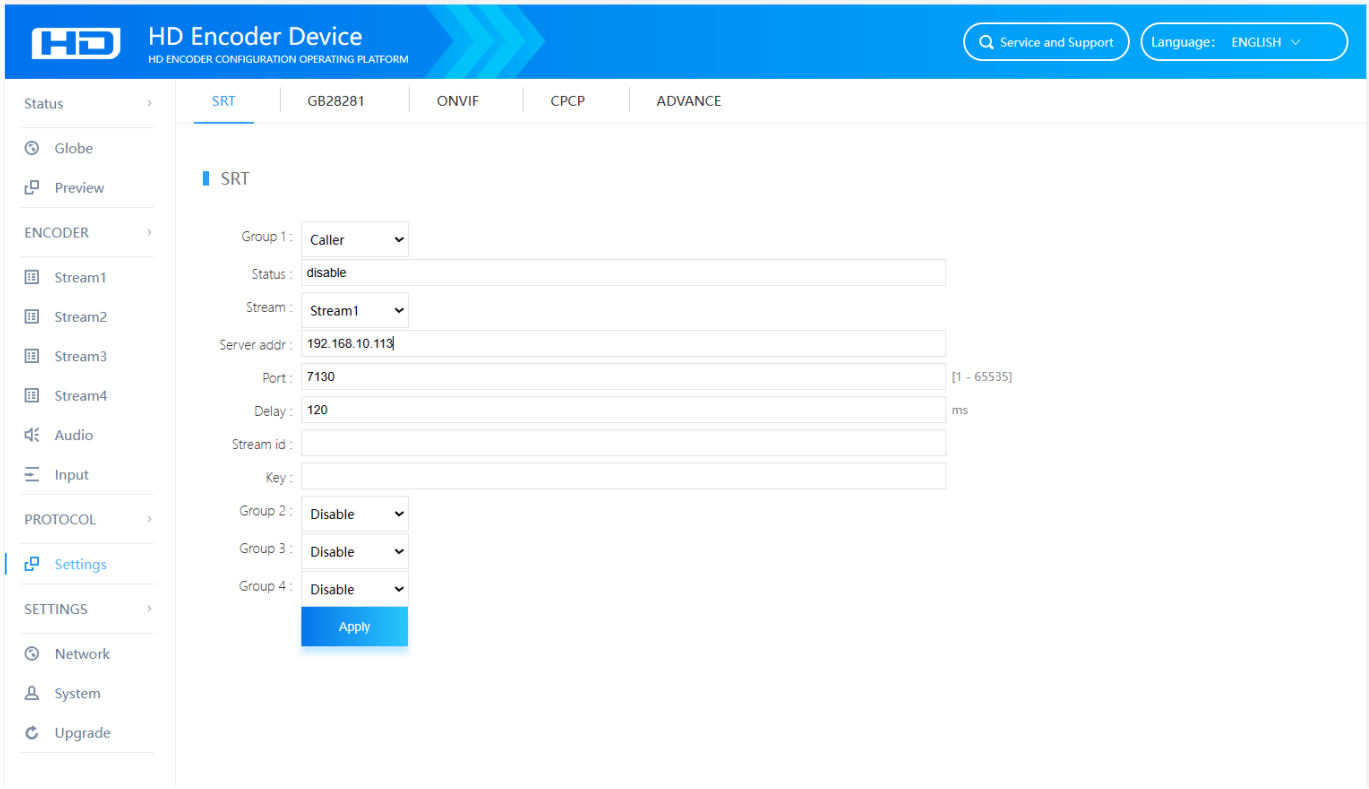
3.5.2 Caller model of SRT protocol



When SRT is selected as Caller mode,

Status: Display the status of the SRT

Stream: choose stream1~4

Server addr: Enter the IP address of the decoder

Port: [1 - 65535], 7130 is default; It is recommended to set the port larger than 1024 if the user want to change it

Delay: 120 is default

Stream ID:

Key: Set encryption password

Note

Click the Apply button when you have finished setting up and then reboot the encoder.

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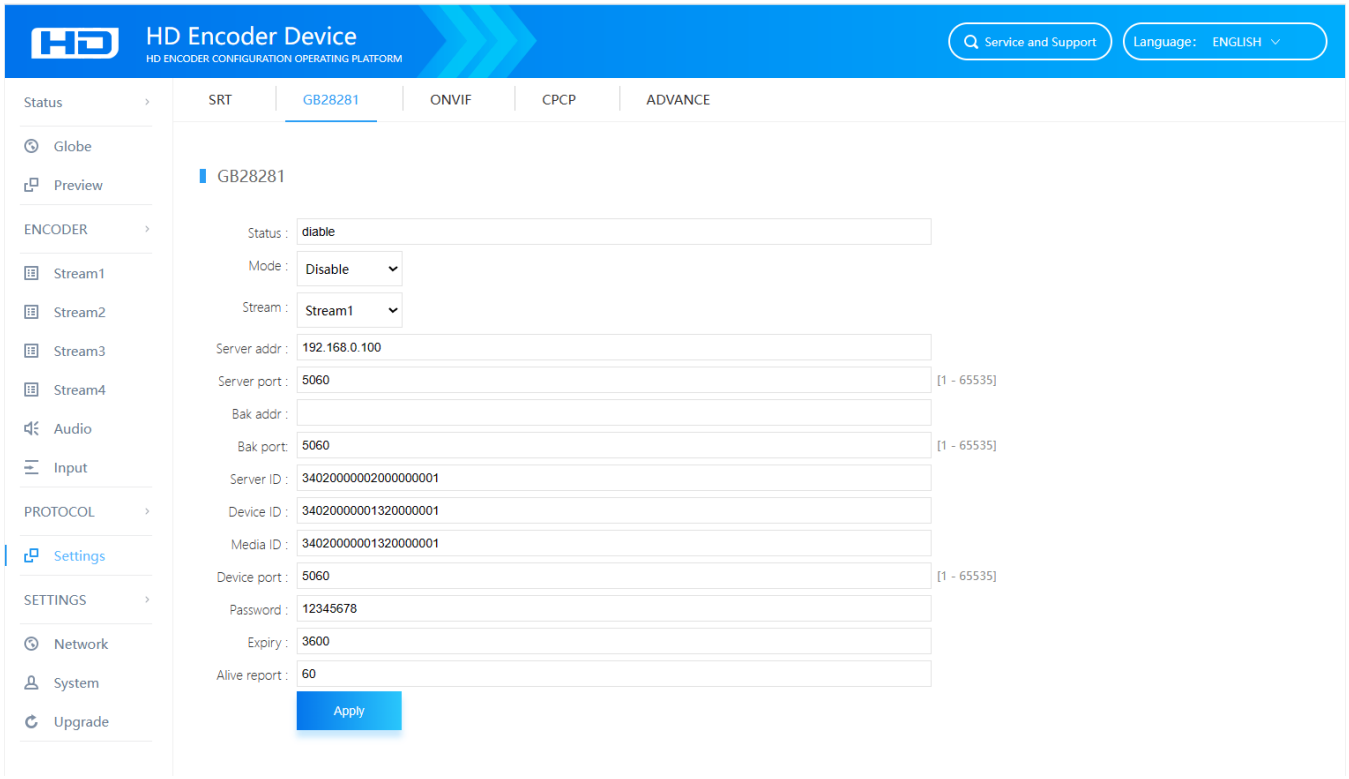
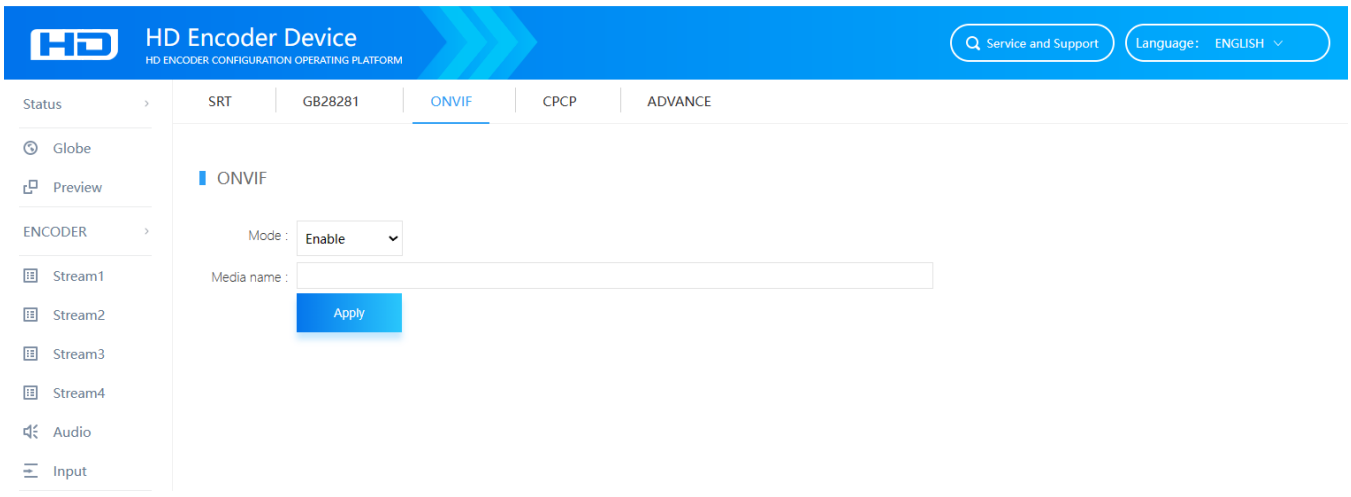
3.5.3 GB28181



By default, users usually do not need to set it up.

3.5.4 ONVIF setting



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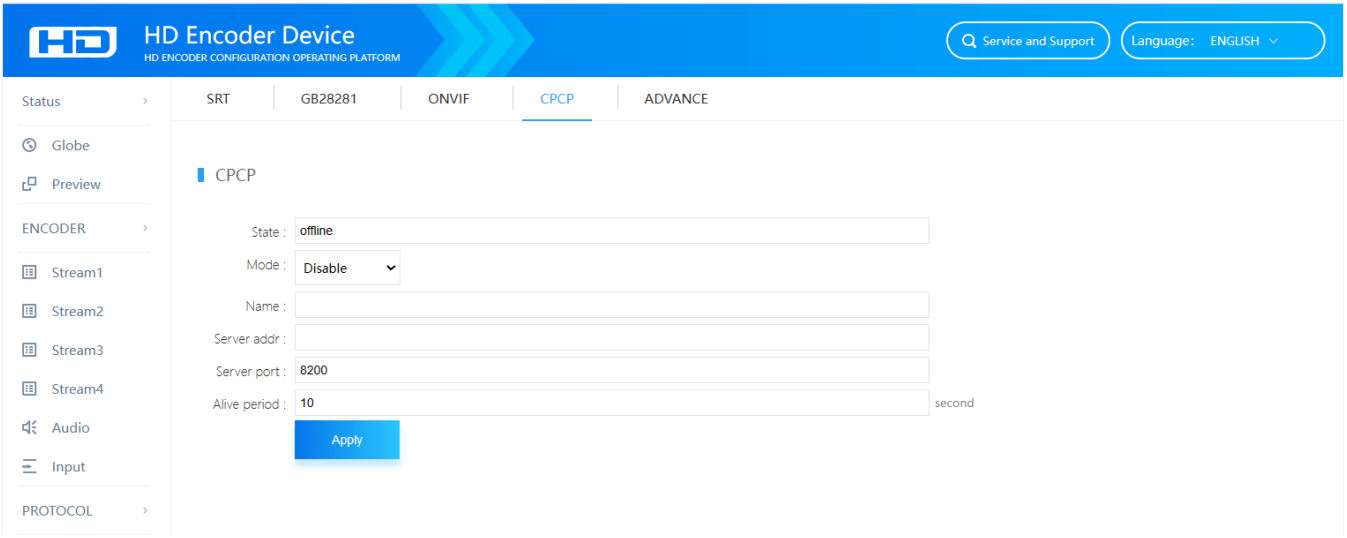
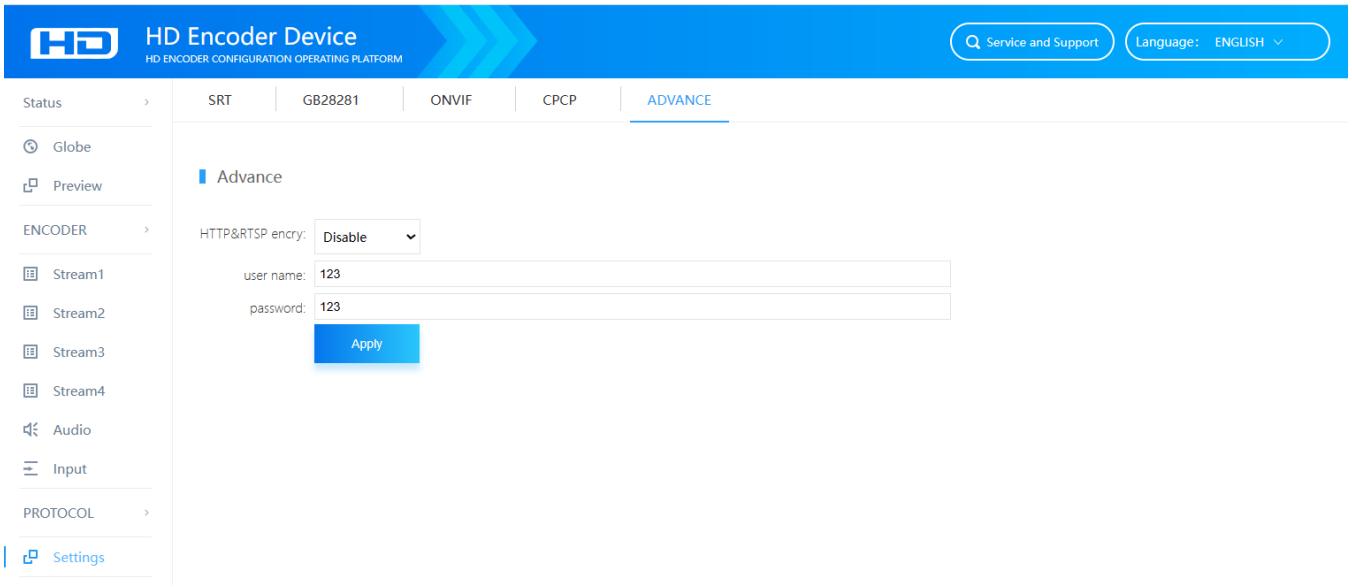
3.5.5 CPCP



3.5.6 Advance setting



Encryption settings for HTTP and RTSP protocols

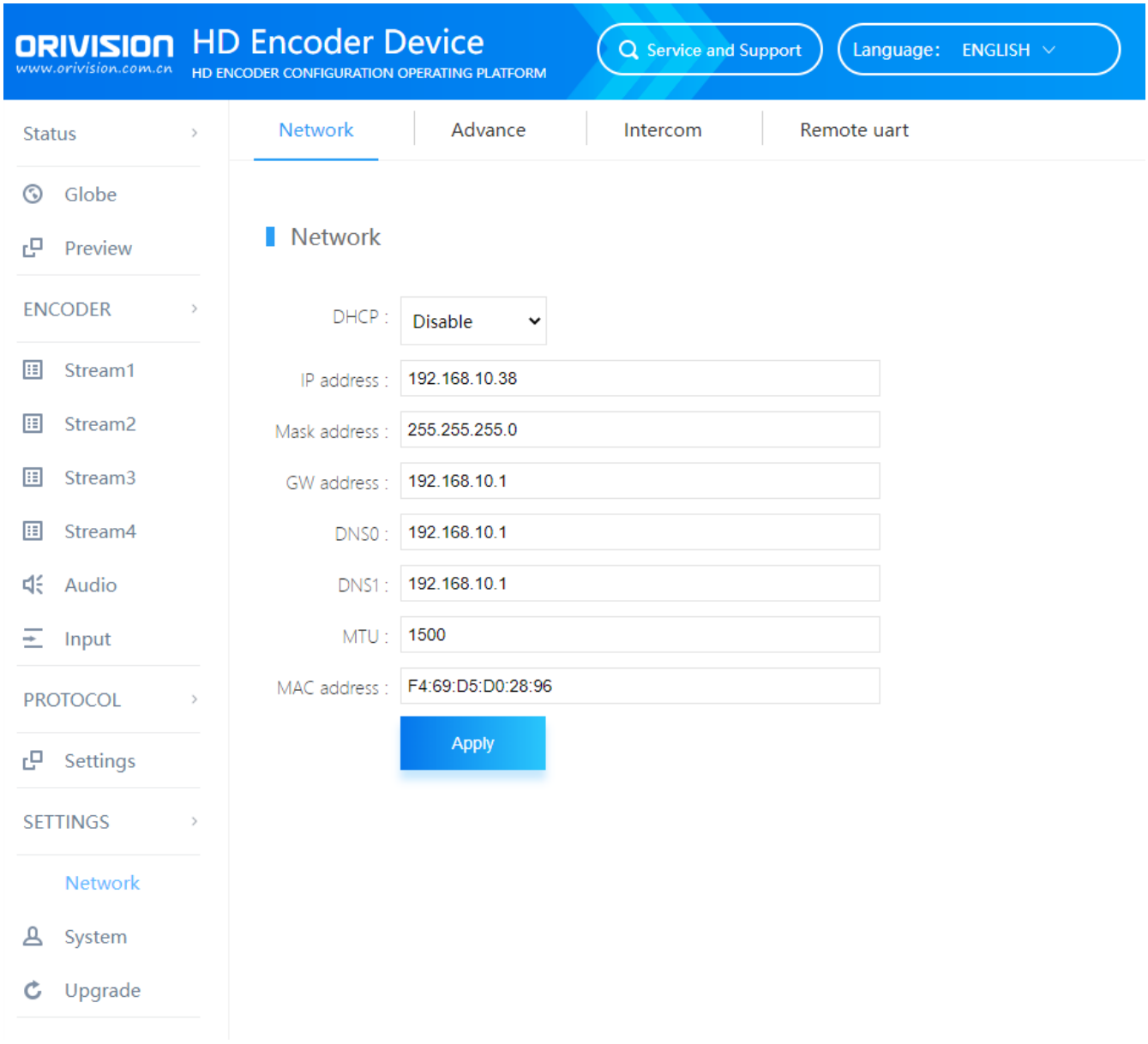
3.6 System Setting

3.6.1 Network Setting

When DHCP is enabled, the encoder IP address is assigned by the switch and the OLED display of the encoder shows the IP address assigned to the encoder.

When DHCP is disabled, the user can manually change the IP address of the encoder. Modify DNS when changing IP.

Note that the encoder needs to be reboot after the IP is changed.



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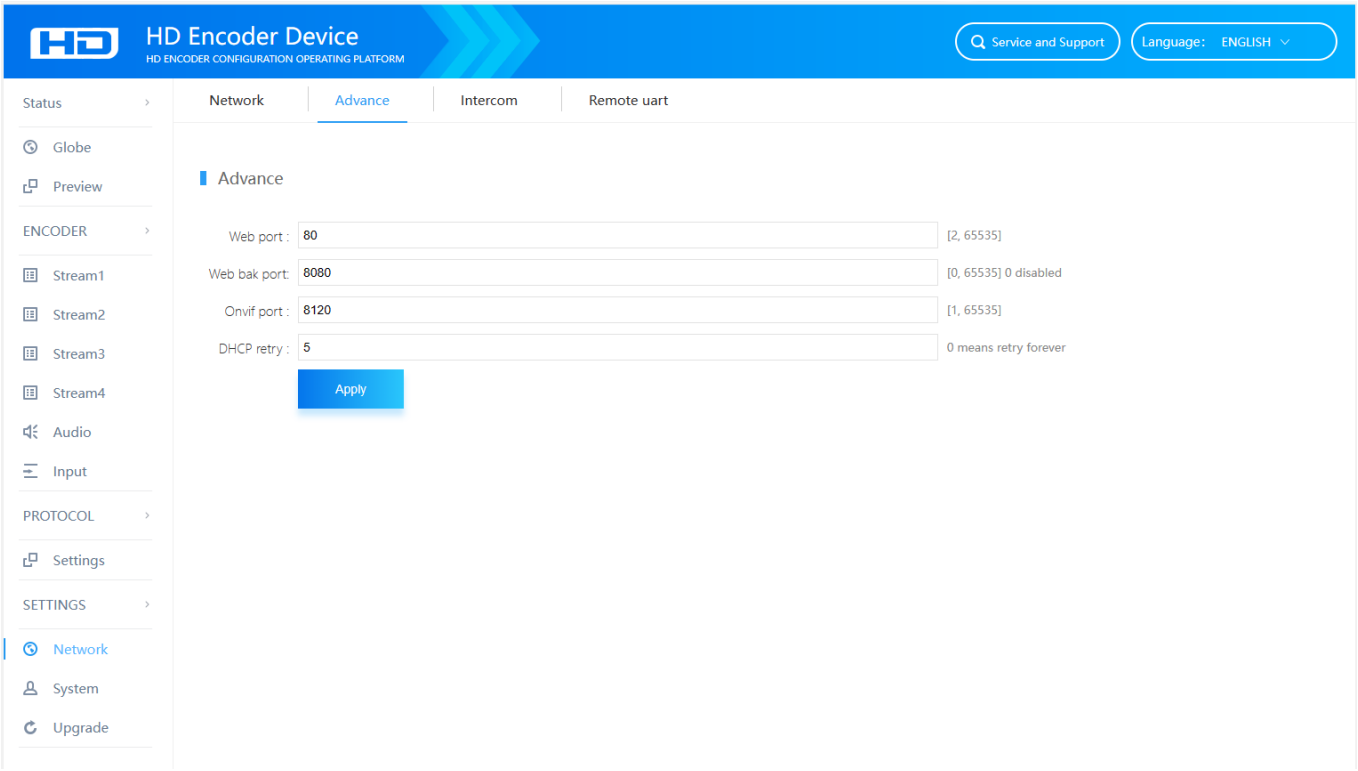

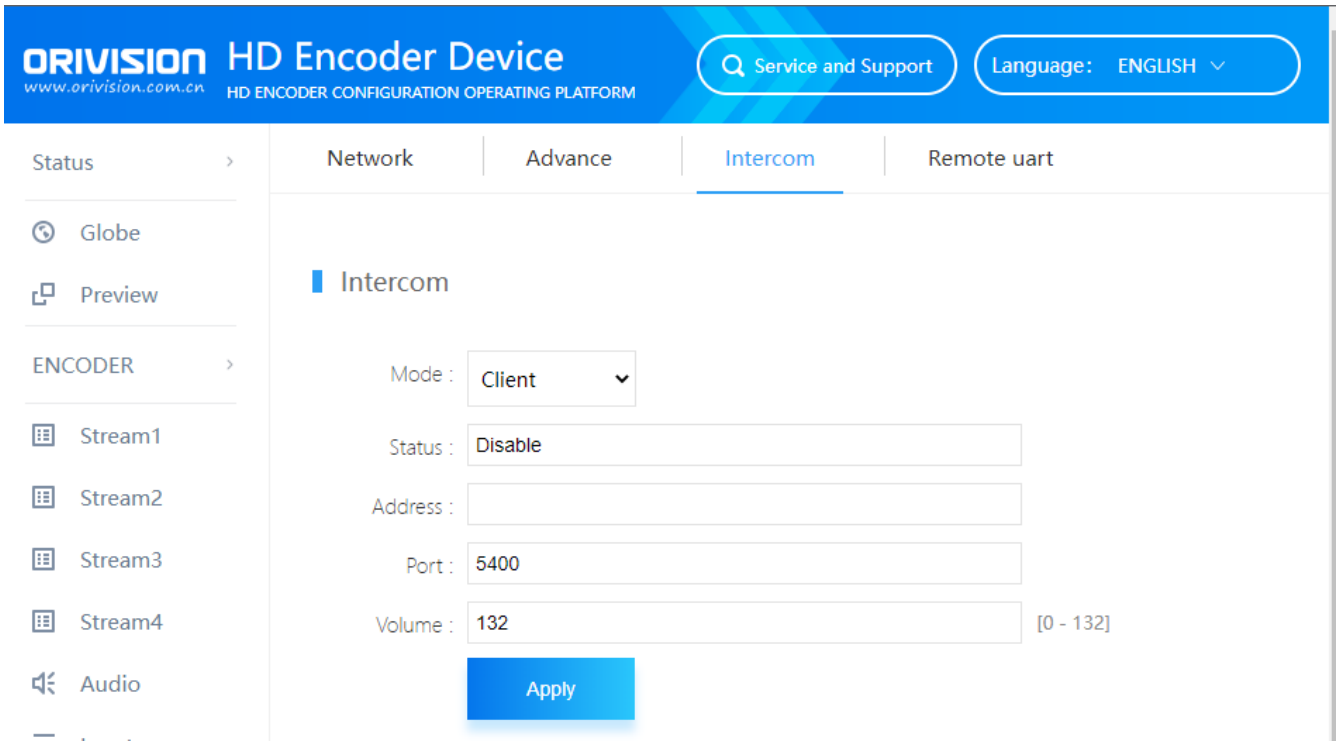

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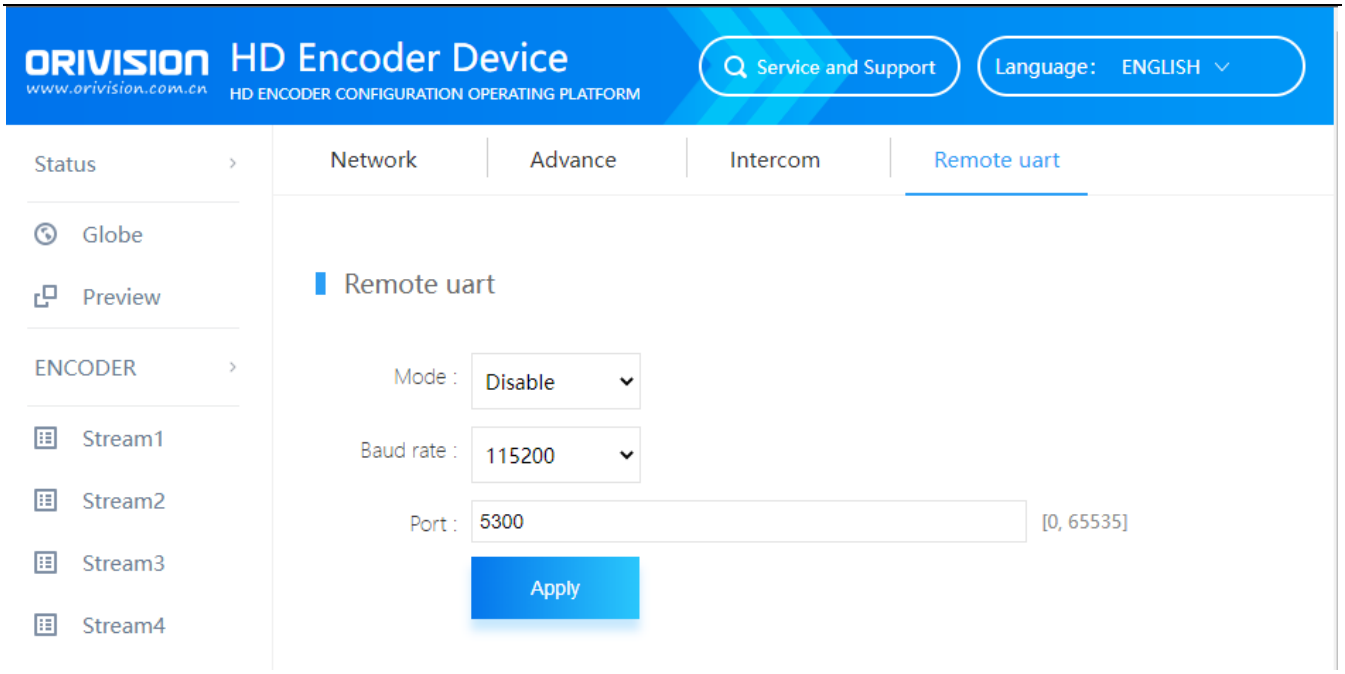
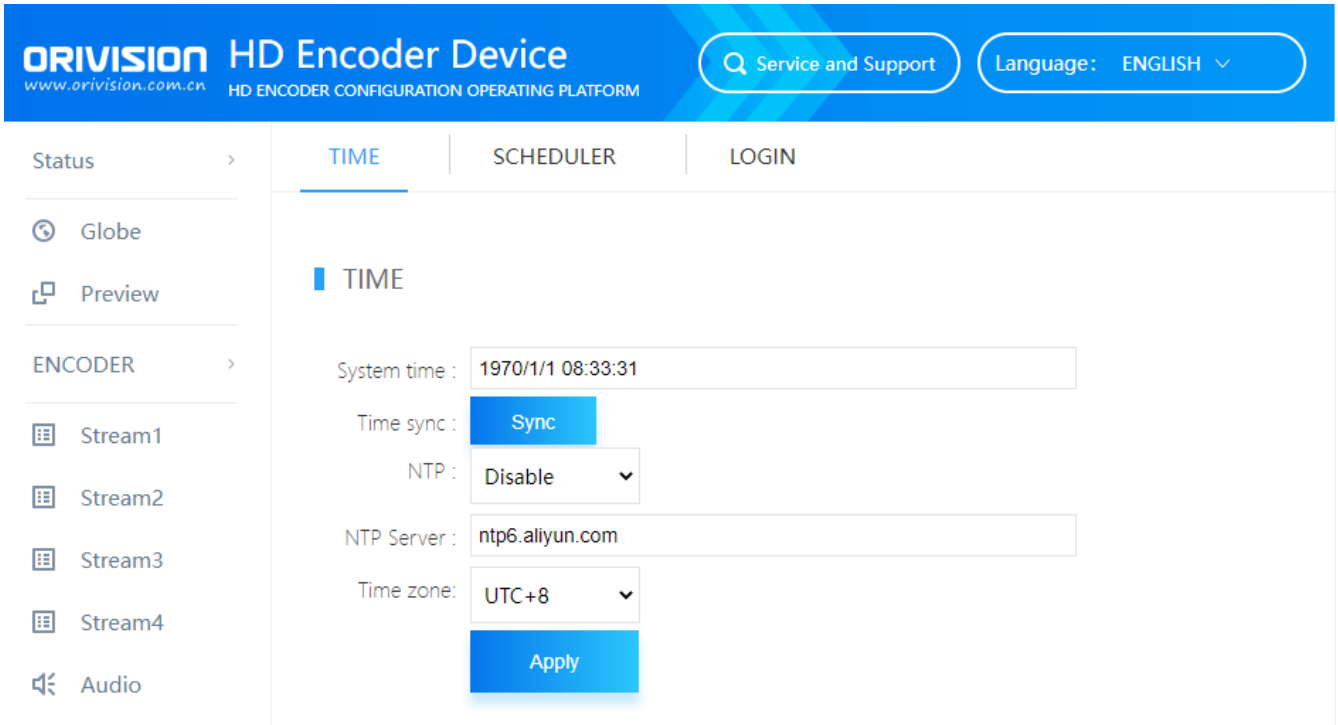


Note
After changing the above parameters the encoder needs to be rebooted.

3.6.2 System Setting

▼Time display settings



One-click “Sync” synchronisation of the time on the user's computer
When NTP is enabled, it can synchronize the user-specified time zone time

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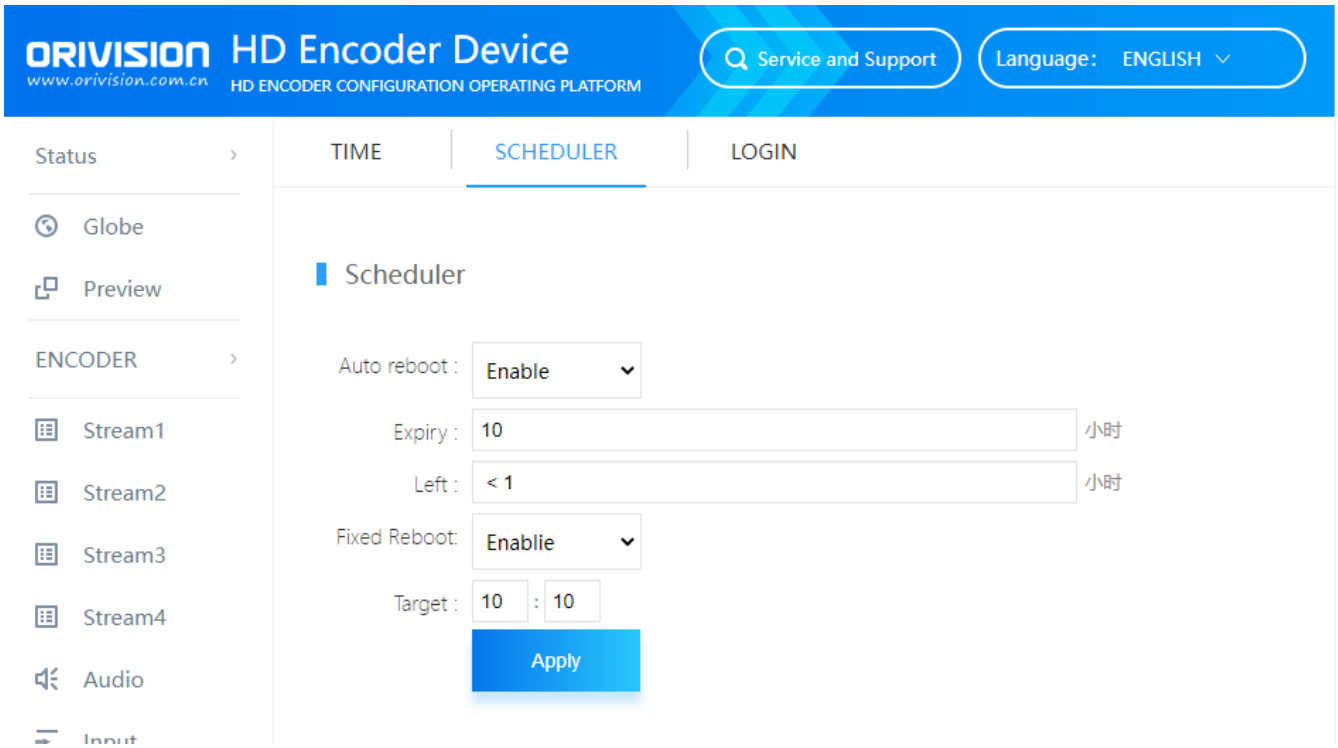
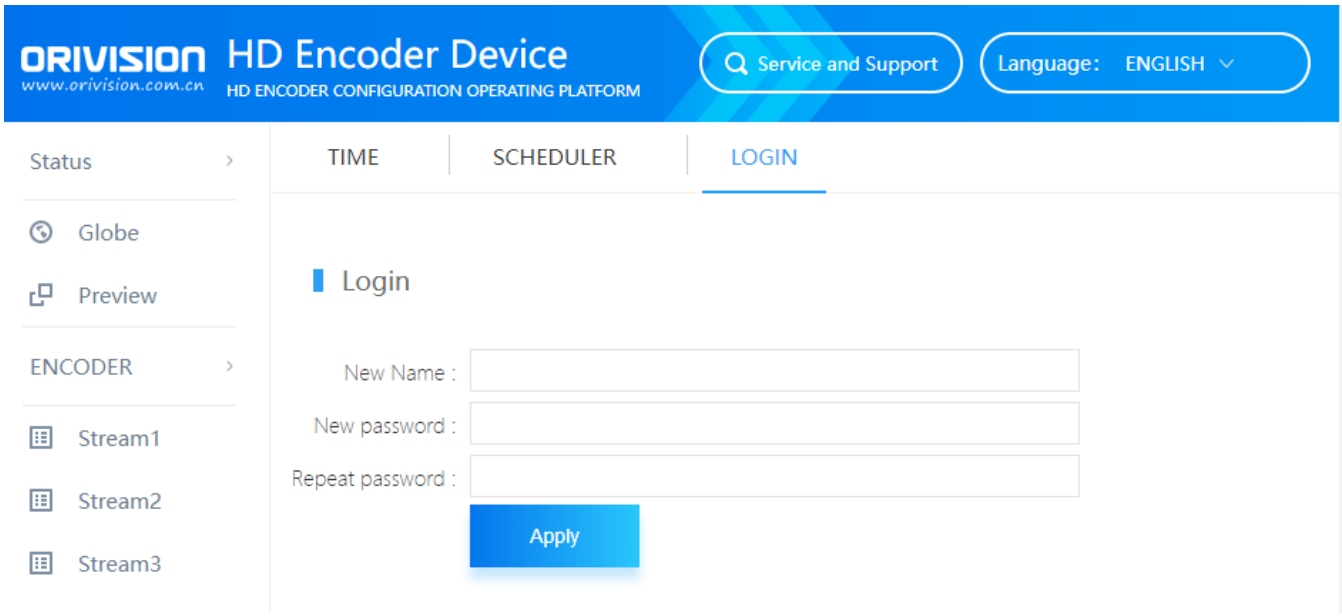
▼Automatic/timed reboot settings



▼Modify login username and password settings

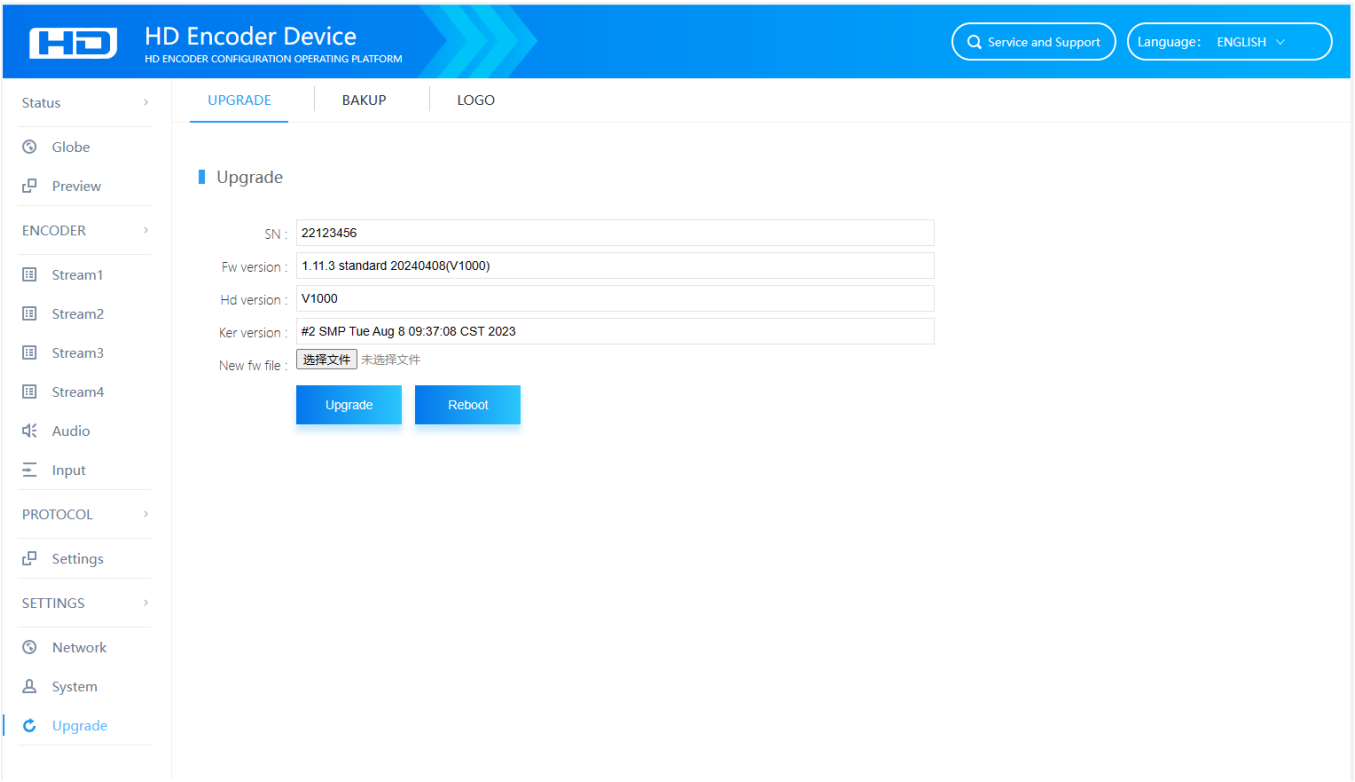


Note

After changing the above parameters the encoder needs to be rebooted.

3.6.3 Upgrade Setting

▼ Upgrade Setting



Display of existing firmware version number information

If the user need to upgrade to a new firmware, you can contact us for the latest version of firmware.

Once you have received the new firmware, please do not unzip the file and upload it directly

When the system prompts that the upgrade is successful, Pls reboot your encoder to finish installing updates.

Note

During the upgrade process, don't refresh or close the webpage and don't turn off the encoder. If you are prompted that the upgrade failed, pls don't reset it, just reboot it.

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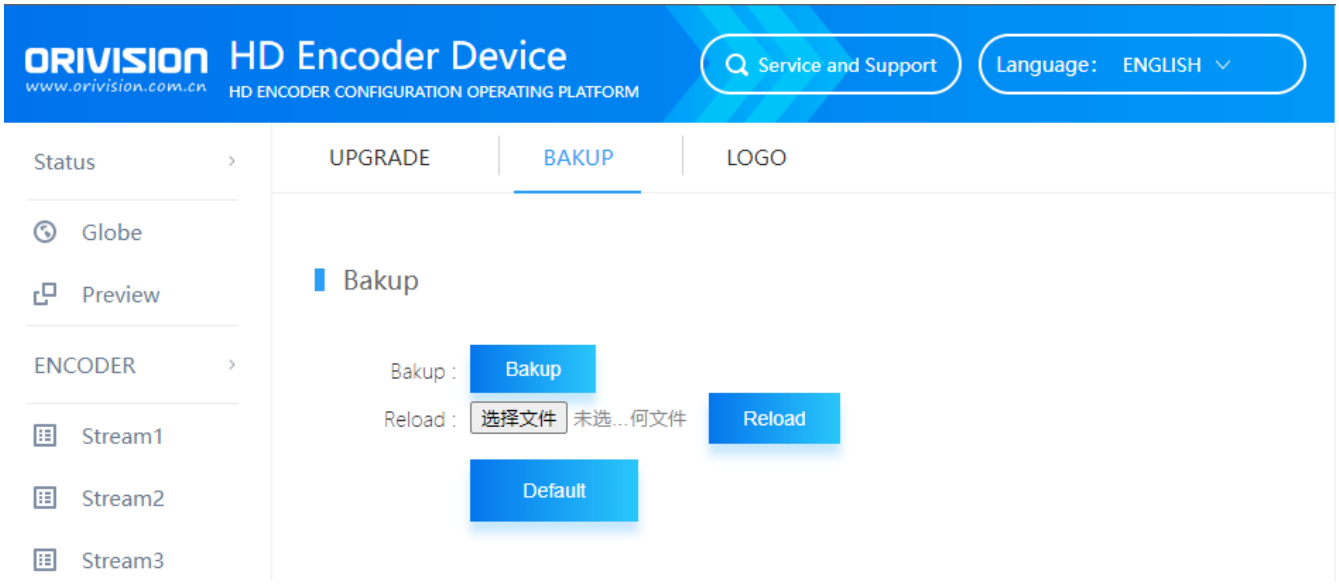
▼ backup Setting

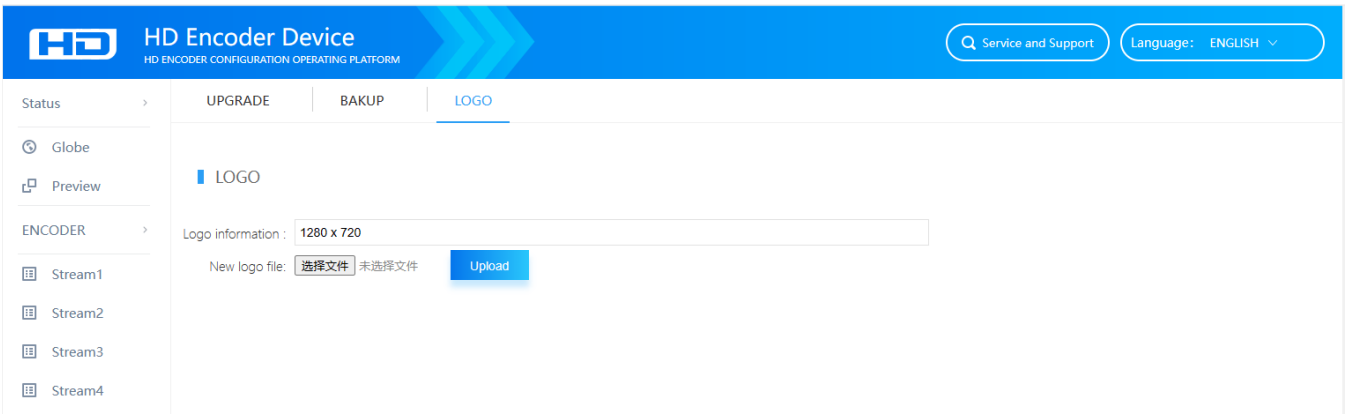
Click the “Bakup” button to save the encoded settings to a file on your local computer with one click

Settings can also be restored with one click by uploading a file

“Default” button is restored to factory settings



▼ LOGO Management



Upload an image of the boot screen here

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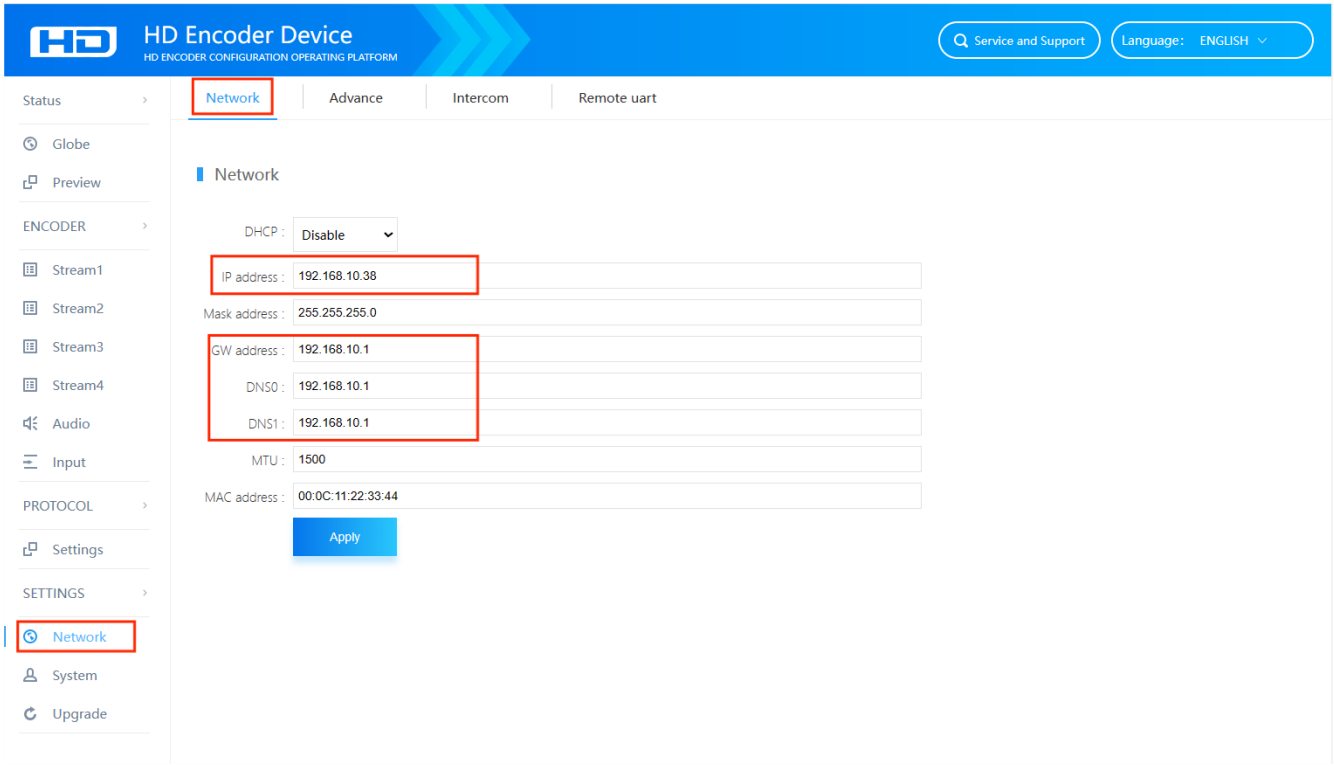
4) How to connect the Encoder to the internet

Step1: Connect the encoder to the PC directly. Login the control web with the default IP: 192.168.0.31

Step2: Check the IP of the router connected to the Network.

For example: the IP of router is 192.168.10.128 Then the user needs to change the default IP of the encoder 192.168.0.31 to 192.168.10.XXX;

Step3: Find the Network set and change the IP to 192.168.10.XXX and the gatway & DNS to 192.168.10.1, then press the "Apply" button and reboot the encoder.



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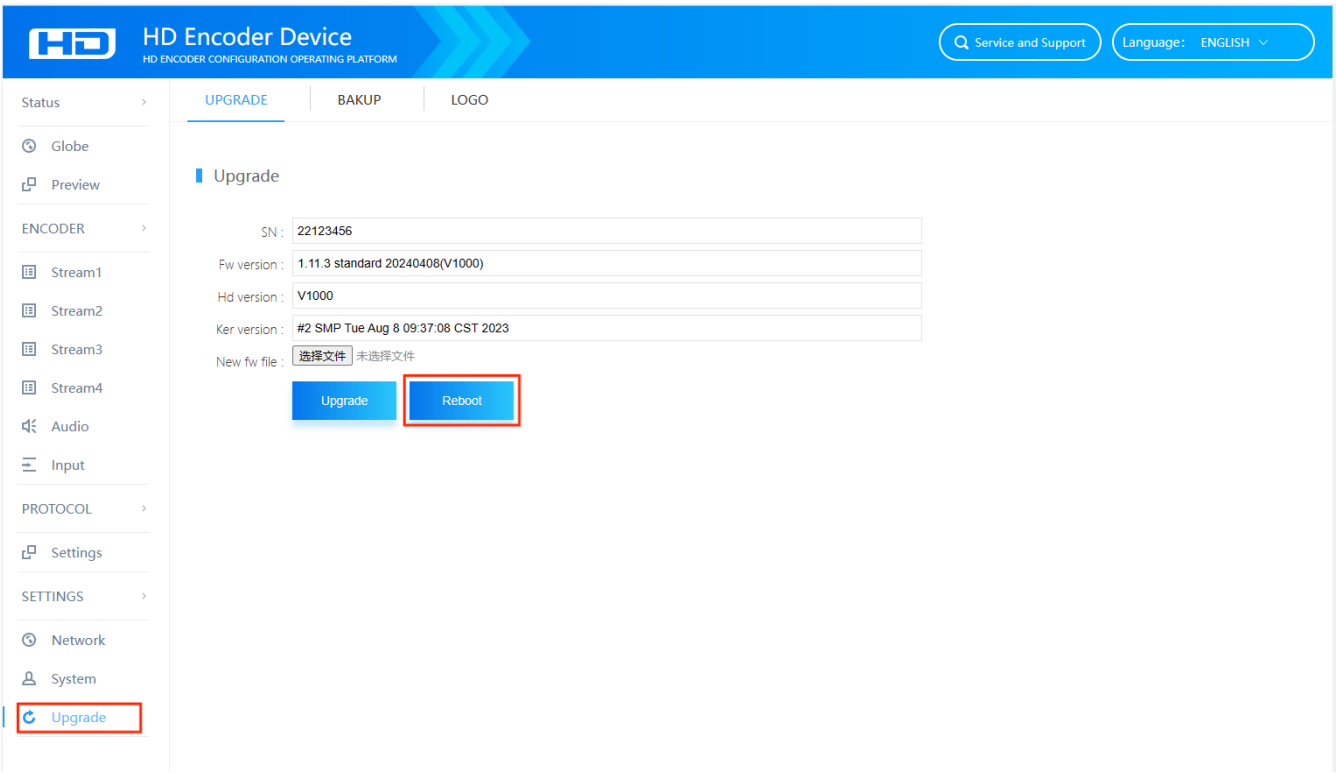
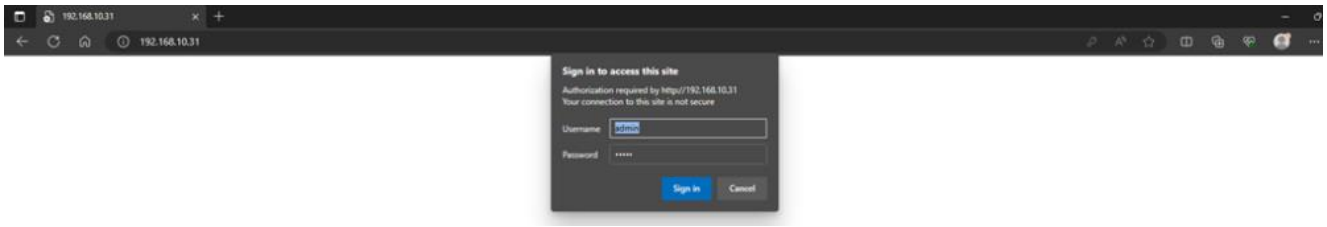


Step4: Connect the encoder directly to the router with a network cable. At the same time, connect the computer to the same network

Step5: Open the browser and enter the new IP :192.168.10.XXX



Note:
If user can't log in by new IP, Pls check the DNS of the router. Then reset the encoder and re-login to the web according to the above steps, modify the IP, gateway, and DNS.

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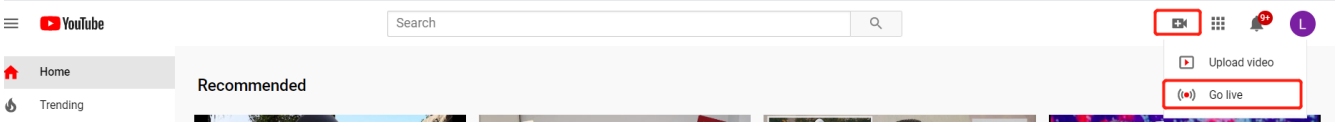
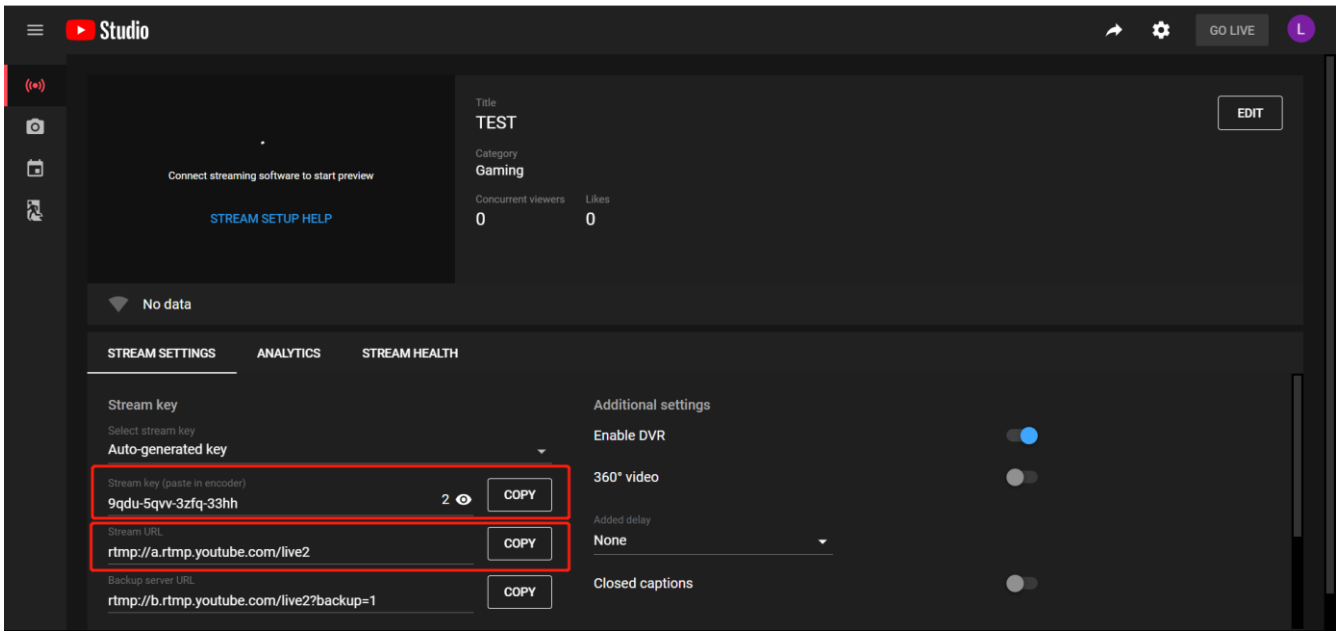
5) How to streaming to YouTube/Facebook via RTMP/RTMPS

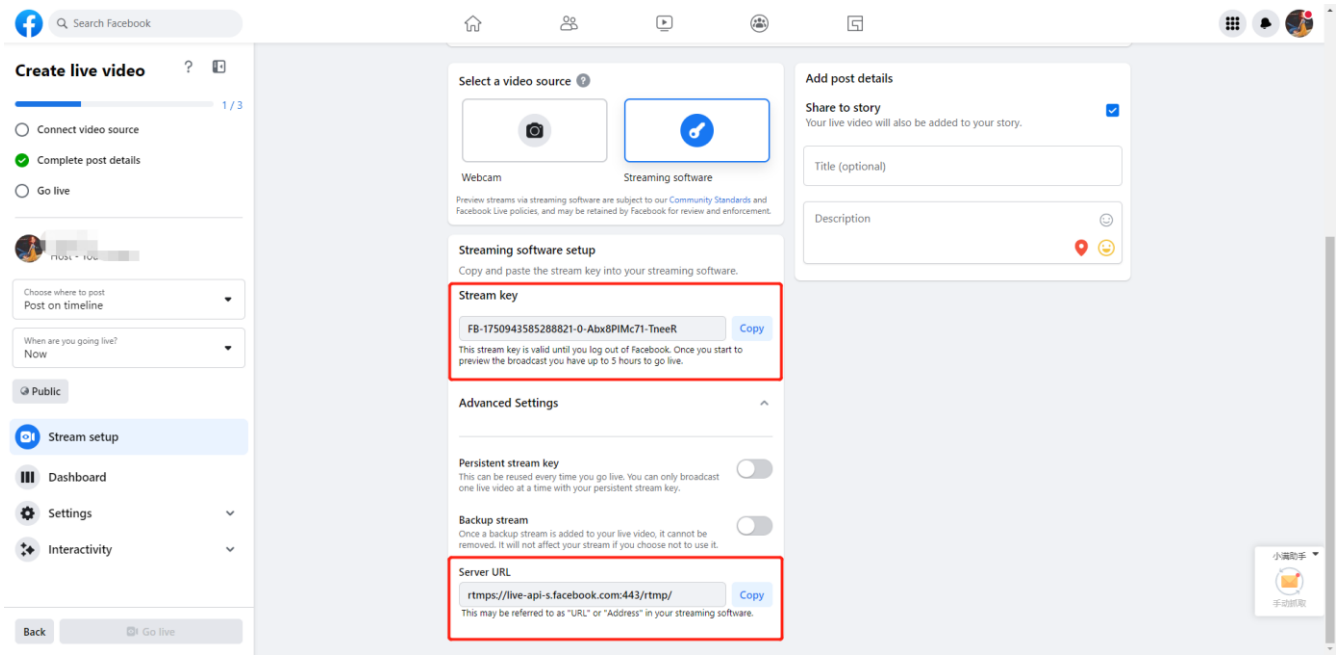
Step1: Before making live broadcast, you will need to check the following.

- Play the stream address in the encoder with the VLC player and confirm that it can play normally.
- Canon camera don't have audio output, you will need to input an external audio.
- Microphone is not an audio source.

Step2: Login Your YouTube or Facebook account and find "Go Live". User can get a stream Key and URL







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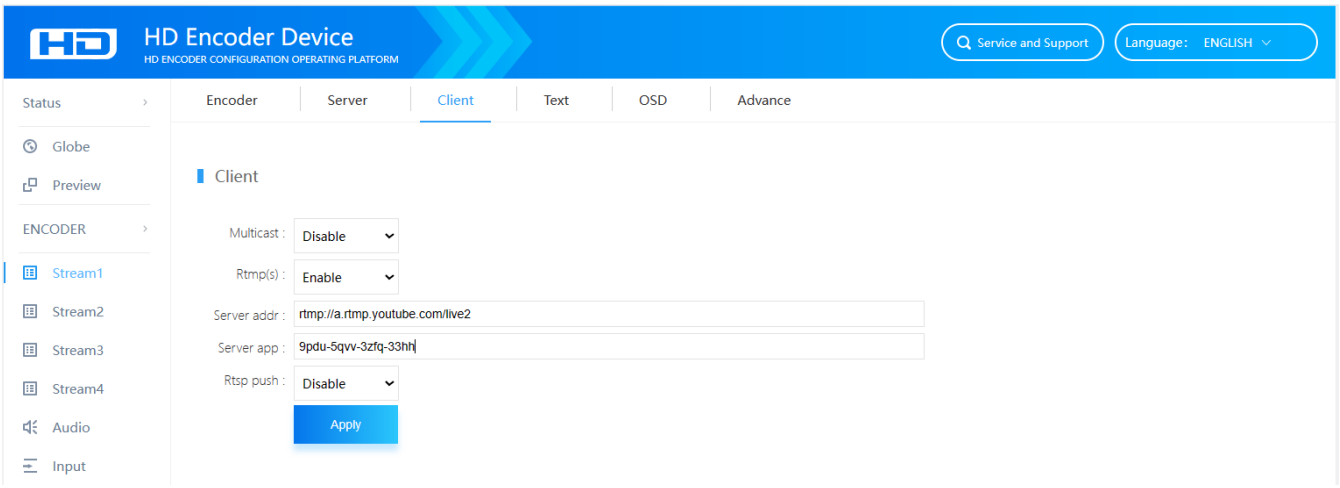
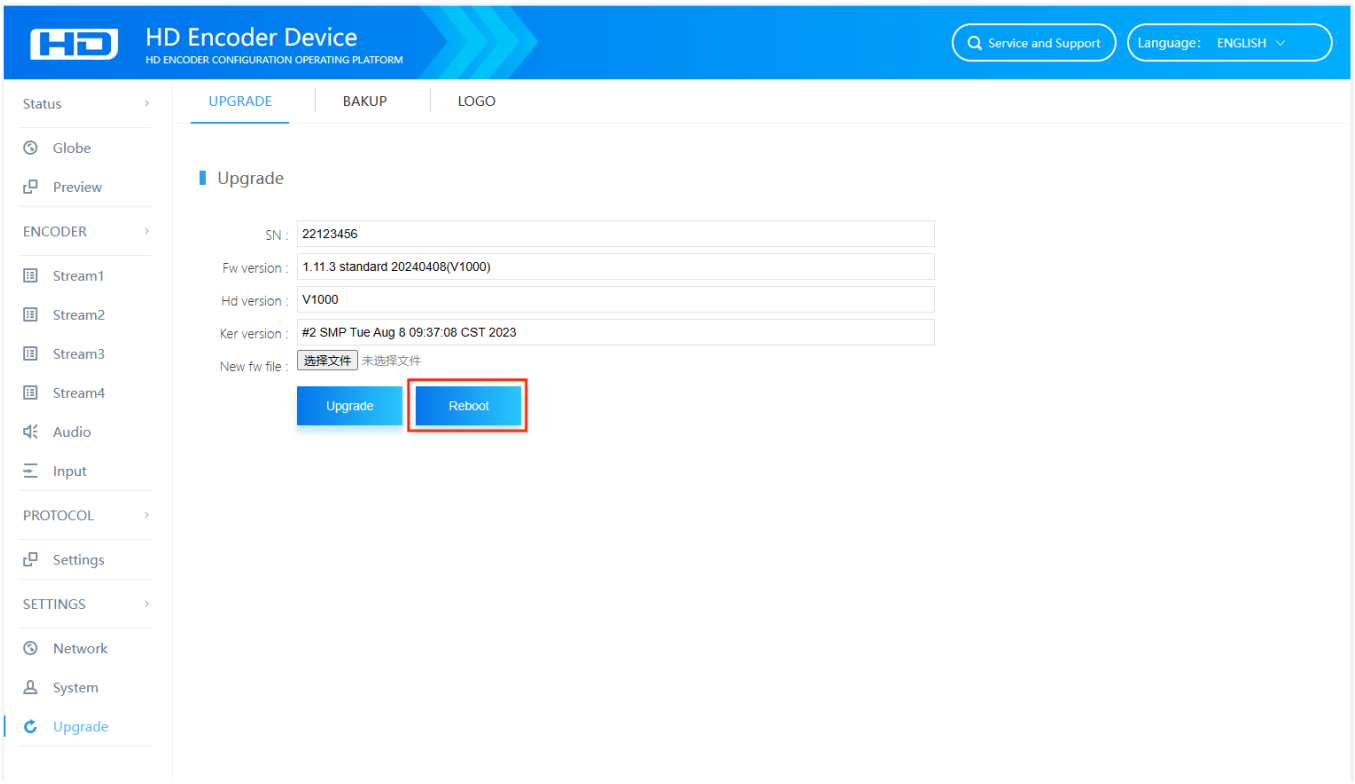
Step3: Log in the control web of the video encoder. Find the "Stream"—"Client"—"Rtmp(s)" Page, enable the RTMP protocol as bellow. Enter the address and secret key of the RTMP server into the corresponding boxes



Step4: After set the RTMP，pls press the "Apply" button on the bottom of the page. Then press "REBOOT" button in the upgrad page.



Note:
If it's failed to stream on YouTube or Facebook, Pls check the DNS settings, the value of DNS0 and DNS1 are the DNS of router.

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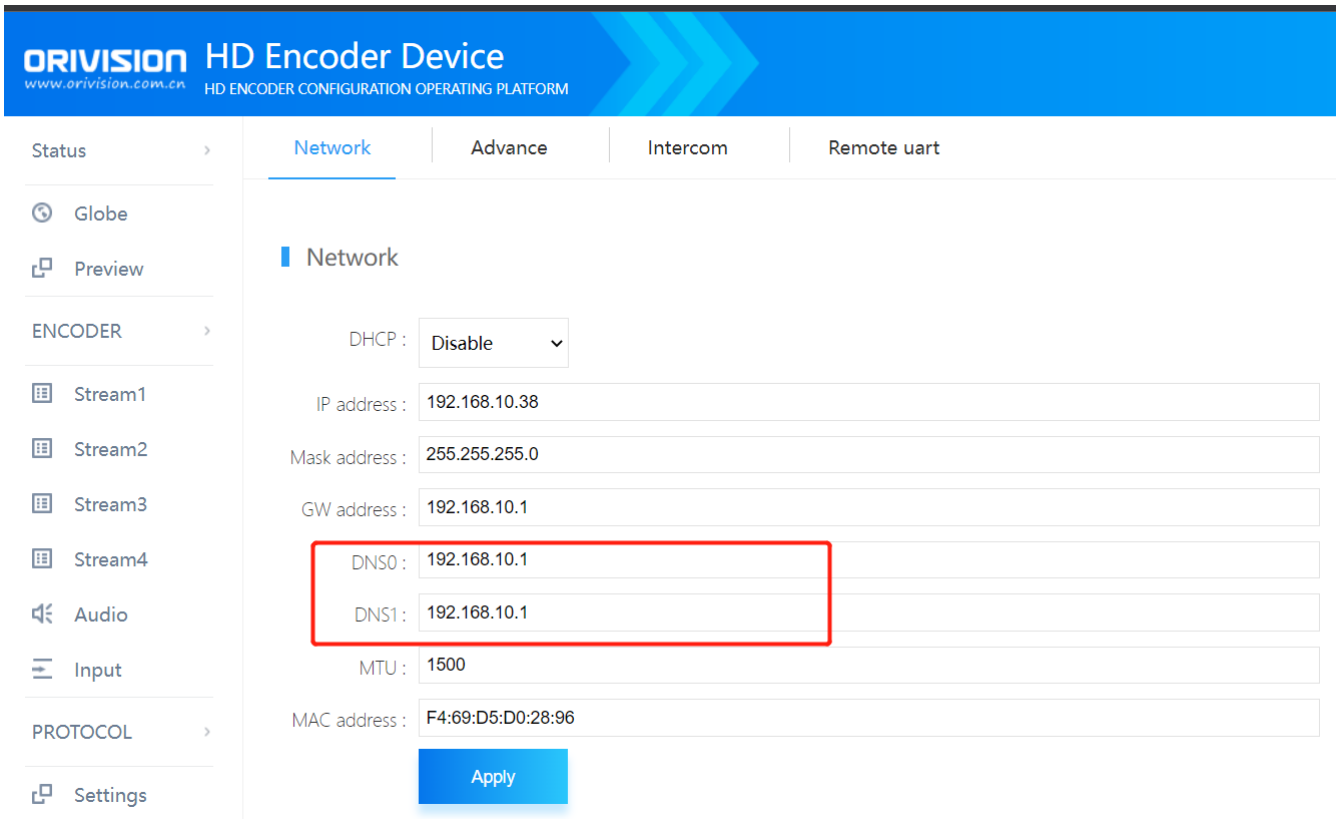
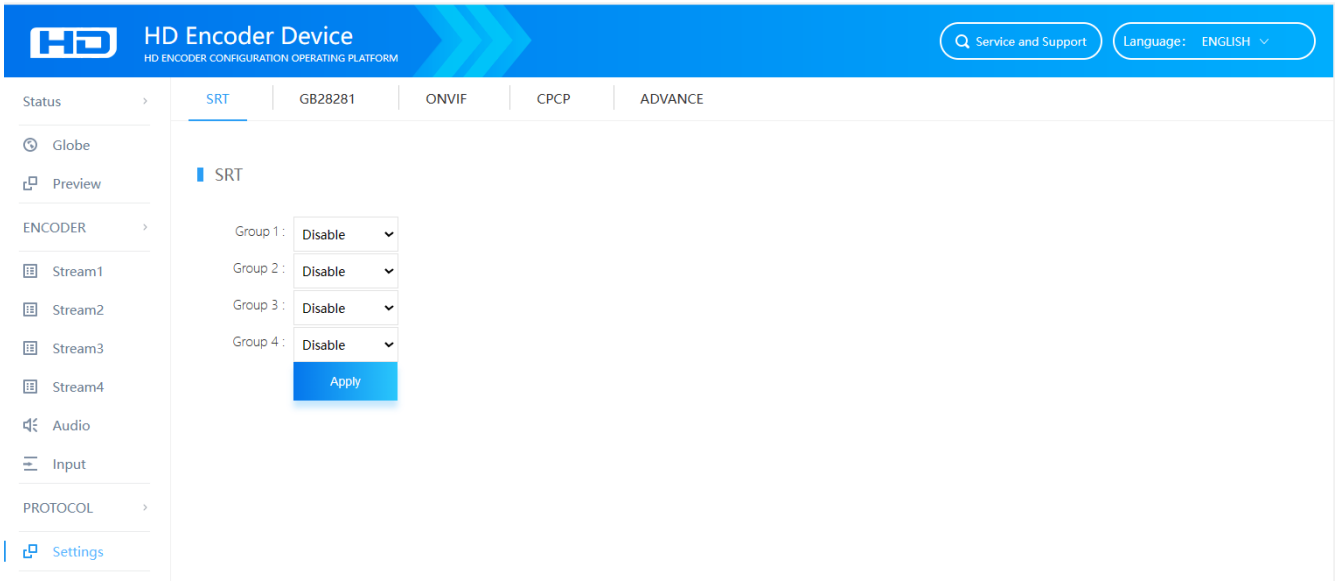

ORIVISION
www.orivision.com.cn
HD Encoder Device
HD ENCODER CONFIGURATION OPERATING PLATFORM
Status
Globe
Preview
ENCODER
Stream1
Stream2
Stream3
Stream4
Audio
Input
PROTOCOL
Settings
Network
Advance
Intercom
Remote uart
Network
DHCP :
Disable
IP address :
192.168.10.38
Mask address :
255.255.255.0
GW address :
192.168.10.1
DNS0 :
192.168.10.1
DNS1 :
192.168.10.1
MTU :
1500
MAC address :
F4:69:D5:D0:28:96
Apply

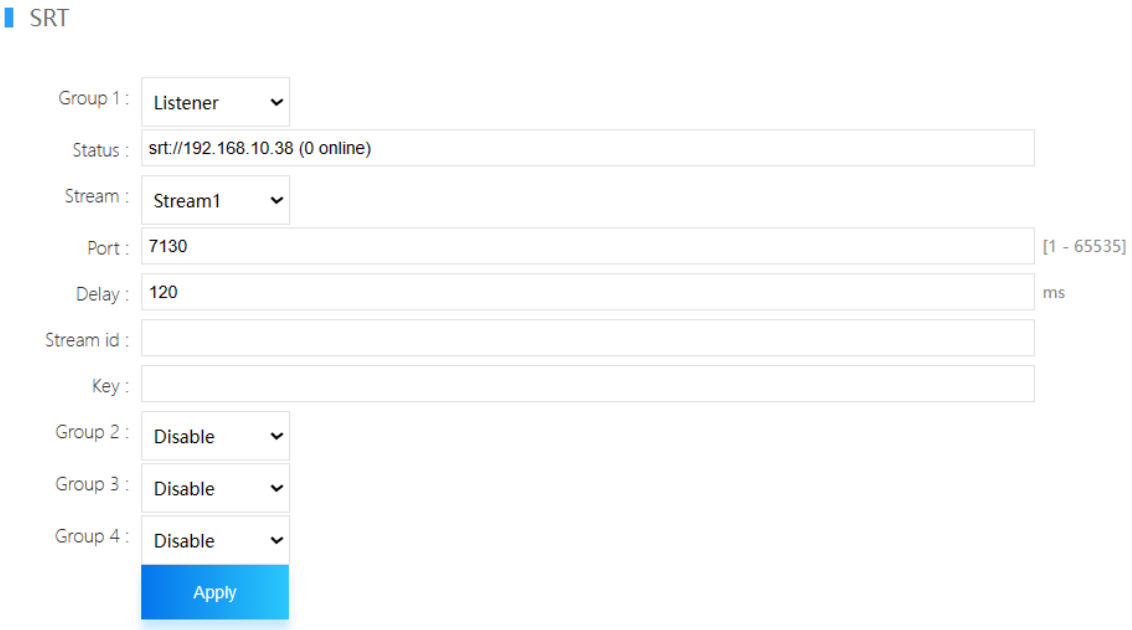
6) How to set the SRT protocol in the encoder

There are two modes are available: caller and Listener



6.1 Listener mode

1. SRT Port: 7130 is default. But customers can modify it and suggest to set it more than 1024.
2. SRT delay: 120 is default.
3. SRT Key: set a password of at least 10 digits if the user need.
4. Press the “Apply” butter and reboot the encoder after any change the parameter.
5. After reboot the encoder, the user can use the SRT address: srt://ip:port to pay it VLC Player to make it working or paste the address into the video decoder



E.g: the ip of the encoder is 192.168.10.38; the port is 7130. Then the address should be srt://192.168.10.38:7130
Users can view the address of the SRT on the status page

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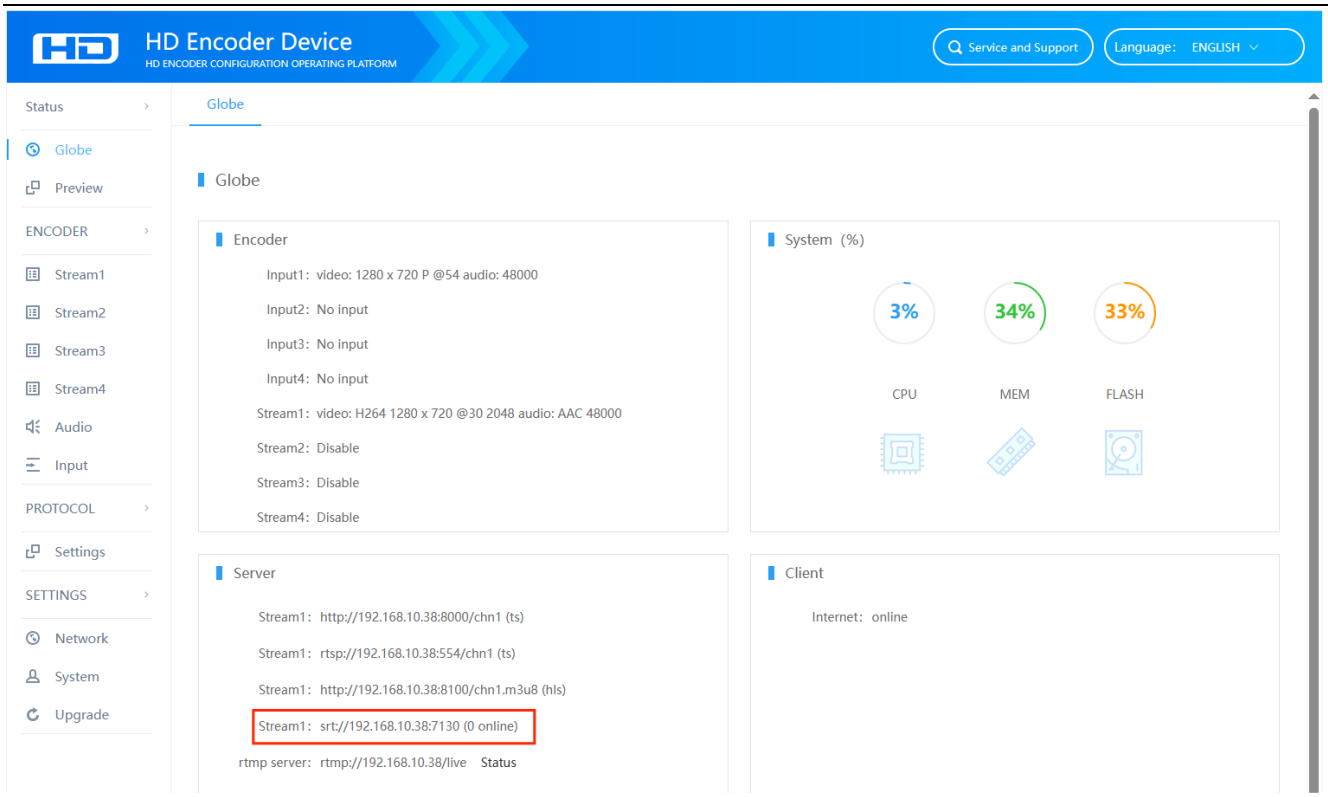
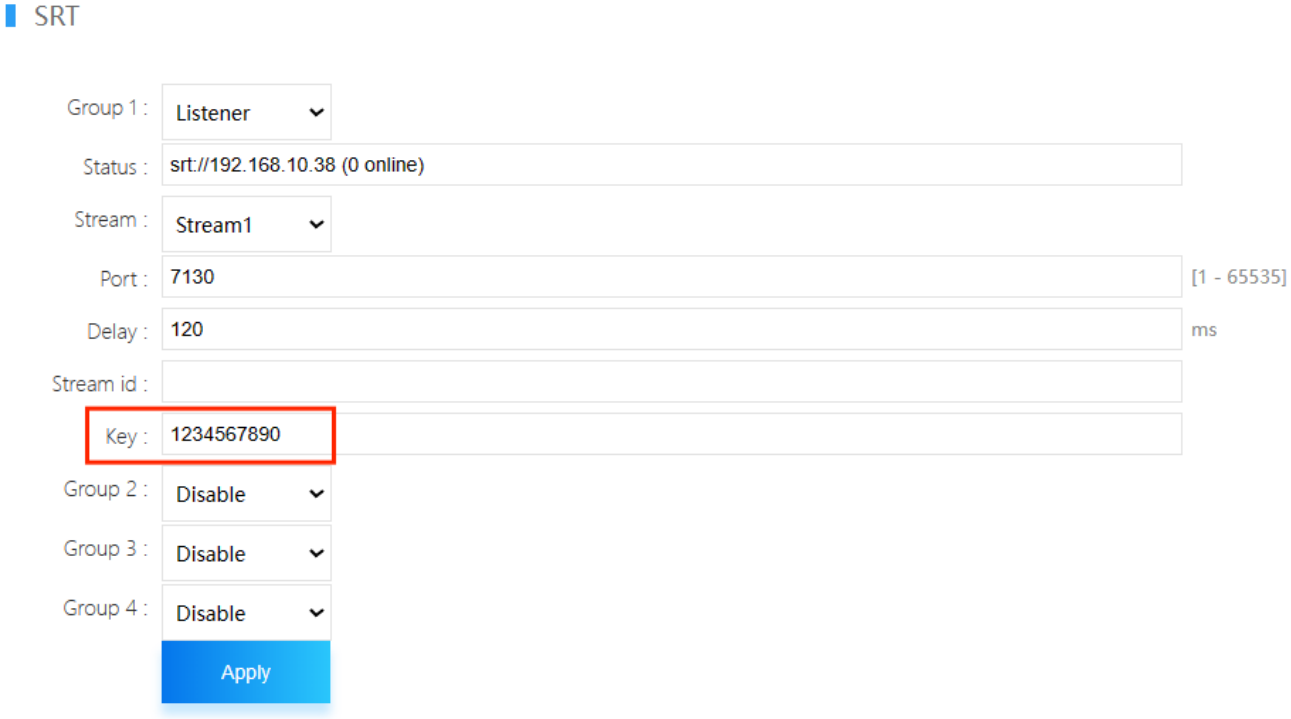


Users can fill in the SRT address directly into the decoder or play it through the VLC player

If the user wants to encrypt the SRT

Then the encrypt SRT address format: srt://ip:port?passphrase=passwords

E.g: srt://192.168.10.38:7130?passphrase=1234567890



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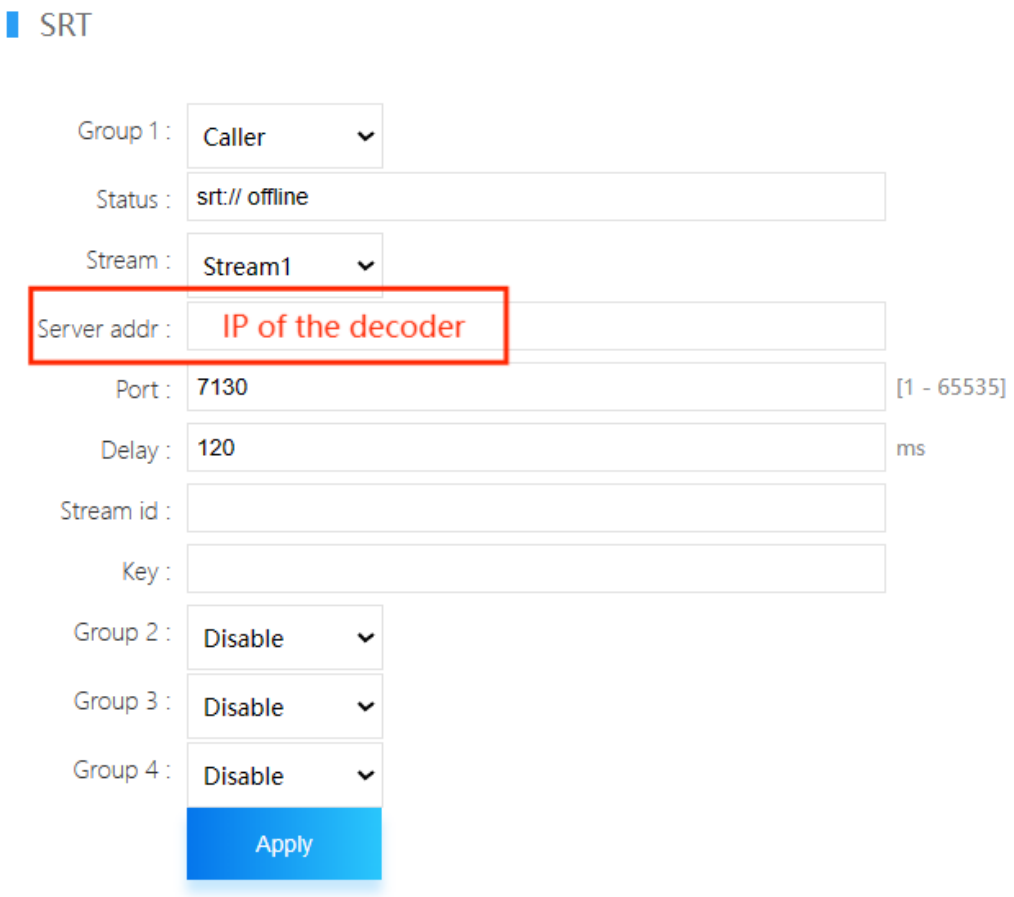
6.2 Caller mode

SRT Port: 7130 is default. But customers can modify it and suggest to set it more than 1024.
SRT delay: 120 is default.
SRT Key: set a password of at least 10 digits if the user need
Press the "Apply" butter and reboot the encoder after any change the parameter.
After reboot the encoder, the user can use the SRT address: srt://@:port?mode=listener to pay it VLC Player to make it working or paste the address into the video decoder



If the user wants to encrypt the SRT
Then the encrypt SRT address format: srt://@port?mode=listenser&passphrase=passwords
E.g srt://@:7130?mode=listener&passphrase=1234567890

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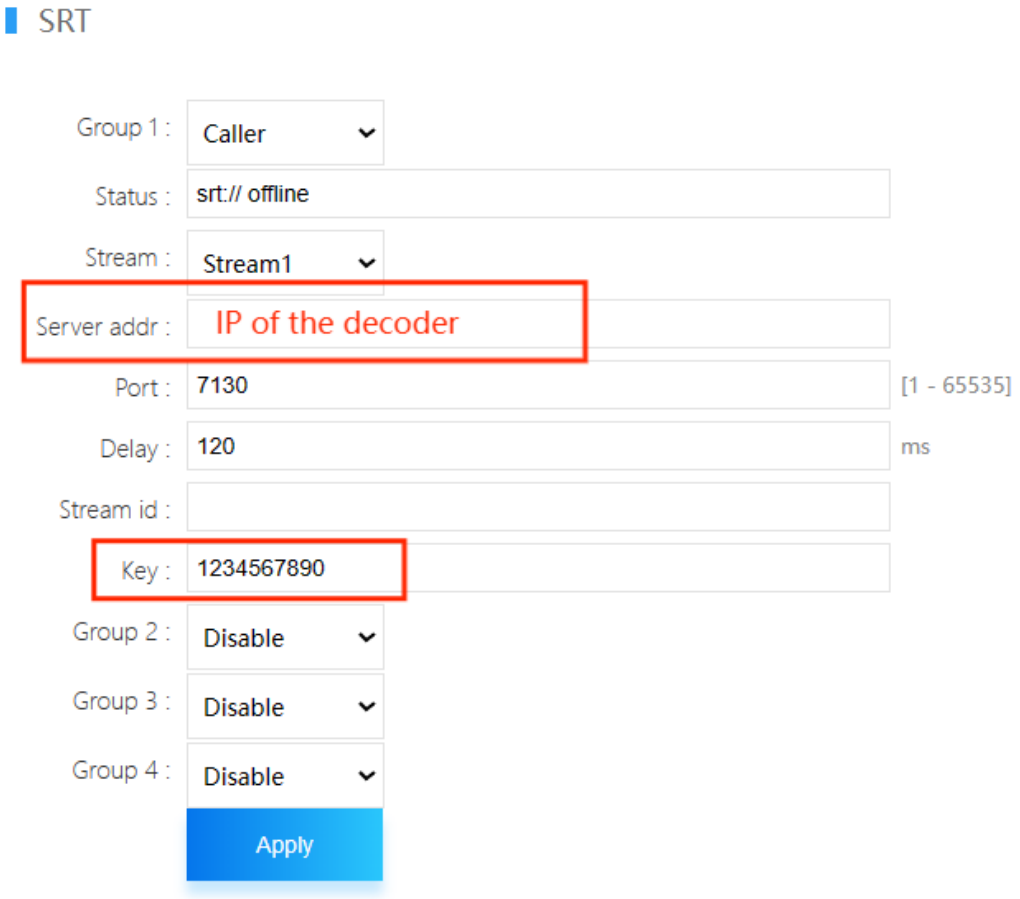

Description of decoder stream address:

1) Video Encoder choose “listener” mode, the SRT address format in Video Decoder:

srt://ip:port

srt://ip:port?passphrase=passwords

2) Video Encoder choose “caller”mode, the SRT address format in Video Decoder:

Srt://@:port?mode=listener

Srt://@port?mode=listenser&passphrase=passwords

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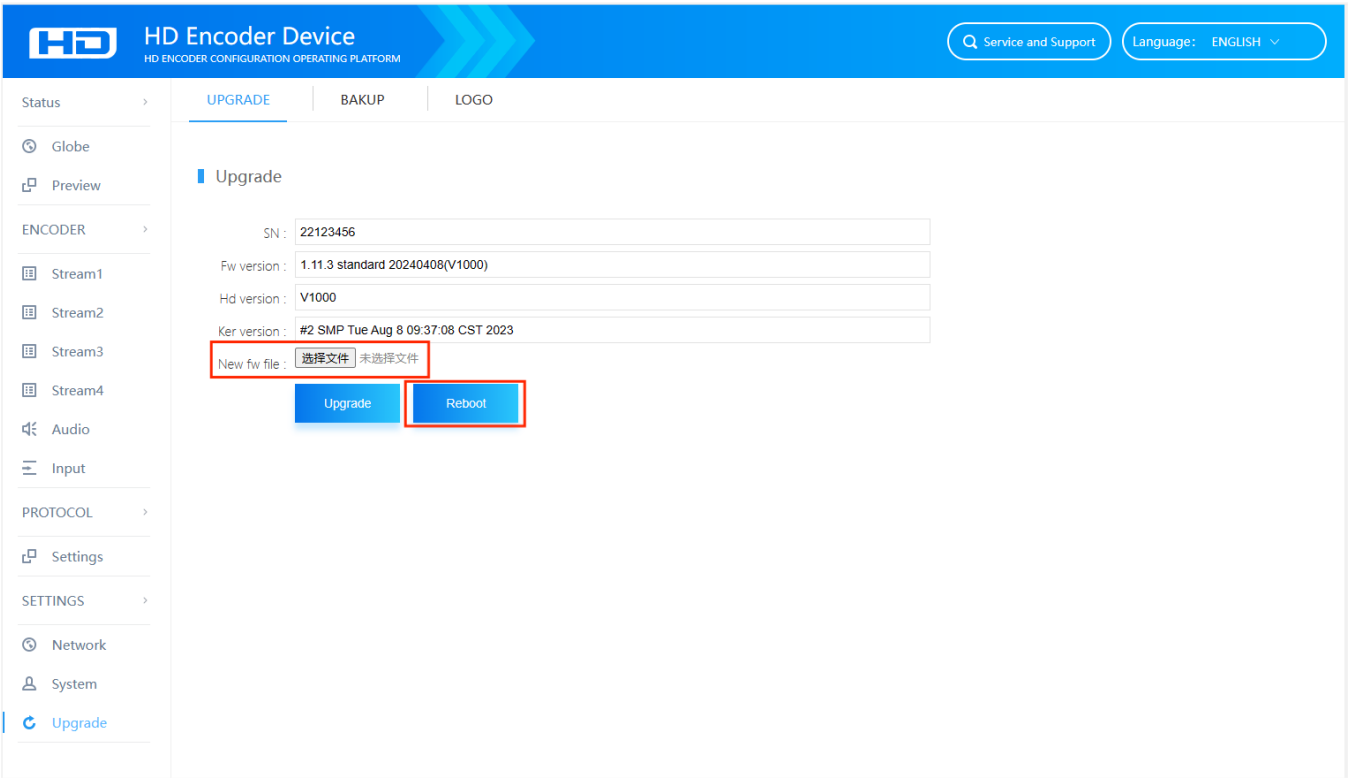
7) How to Upgrade the new firmware

1) Once the user has obtained the firmware, do not unzip it and upload it directly
2) During the upgrade process, don't refresh or close the webpage and don't turn off the encoder.
3) When the system prompts that the upgrade is successful, Pls reboot your encoder to finish installing update.
4) If you are prompted that the upgrade failed, pls don't reset it, just reboot it



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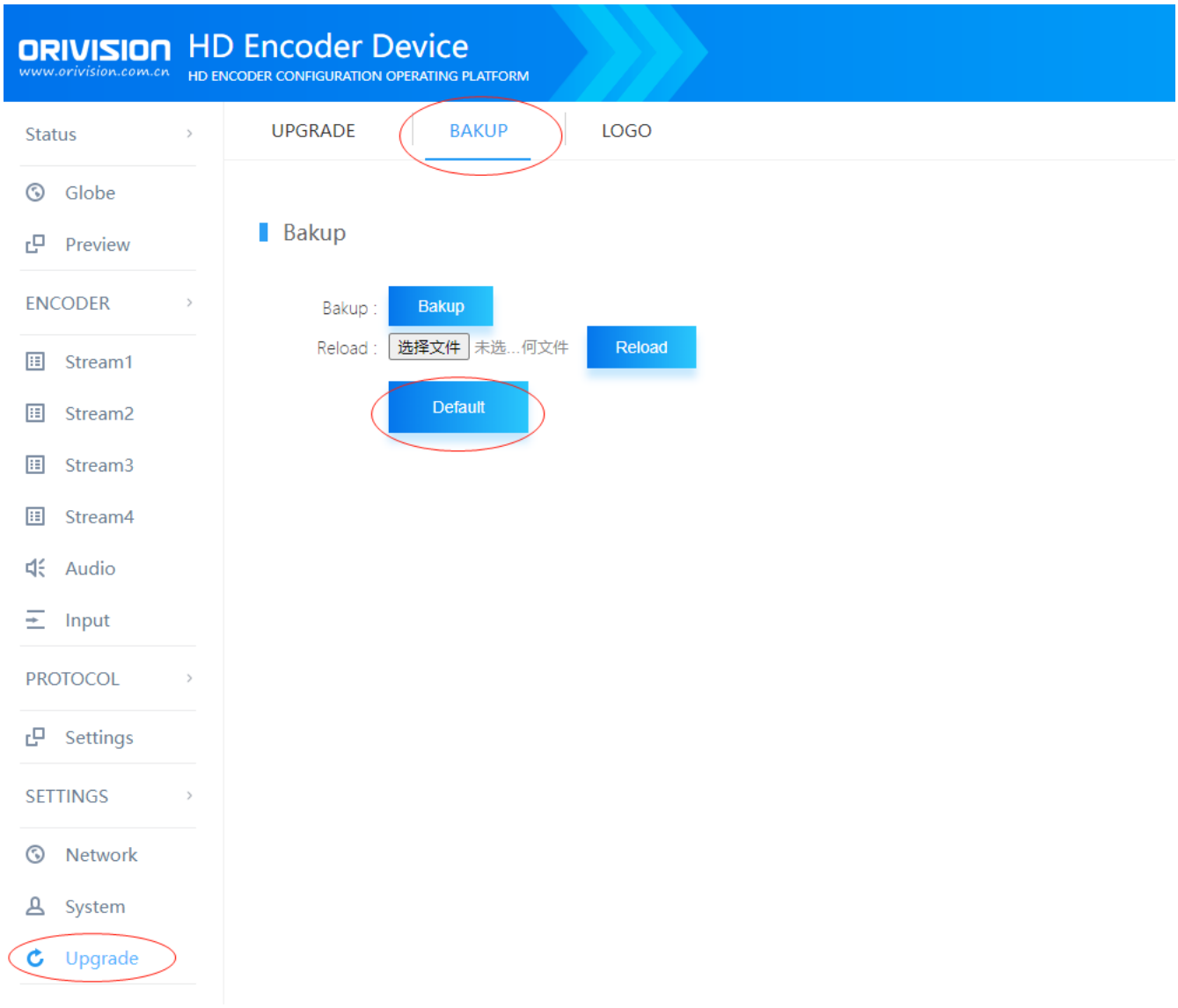
8) How to Reset/Reboot the encoder

There are two ways to reset the factory settings:

1) Find the “backup” button in the system settings of the encoder and click on the "default" button to restore the factory settings



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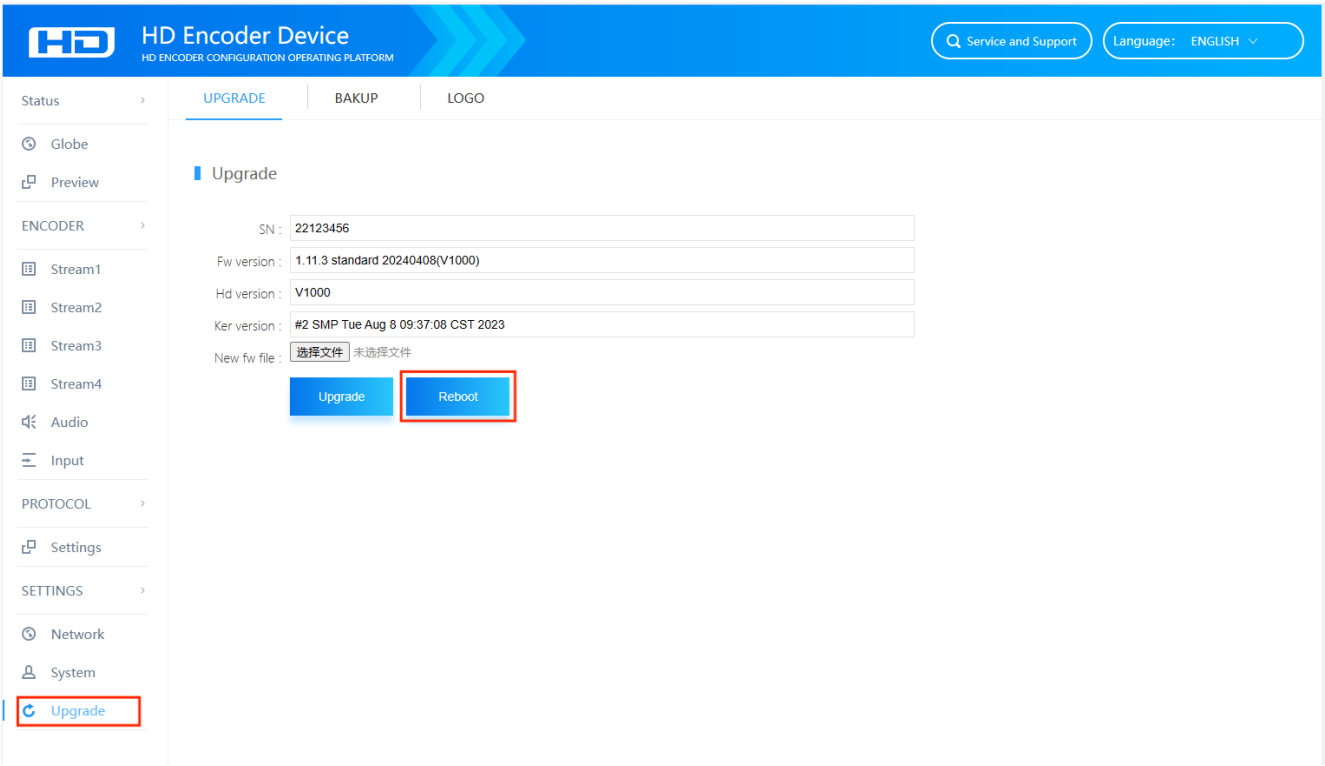
2) There is an RST hole on the front of the unit, Then get a sharp needle and insert it into the SRT hole and hold it for about 10 seconds. When all the lights no longer flash, the factory settings have been restored. At this point the default IP(192.168.0.31) is displayed on the OLED display.

Users can restart the encoder by “Upgrade-UPGRADE-reboot”

Note: The encoder needs to be rebooted after the above changes.



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