# 1080P Desktop Recorder

# Contents


Product Description....4

Software technical specifications....4

Connection Diagram....5

Start Using....6

1. Connect to the power supply and the network....6

2. Log in to the device....6

3. Connect the signal source....6

Detailed Web Page Function....7

Operating Status....7

System Status....7

Network status....8

Port status....8

Preview....9

System Program....10

Encoding Parameters....10

Advanced Coding Parameters....11

Audio parameters....11

Output Settings....12

Global Configuration....12

Stream Configuration....13

TS settings....13

Livestream Settings....14

Play address....14

Extensions....15

ROI....15

Region of Interest Code....15

Basic Settings....17
Control column....17
Livestream settings....18
Advanced Settings....19
System Program....19
Wired Network Settings....19
Maintenance....20
System Update....20
Change language....21
Common Problem....21

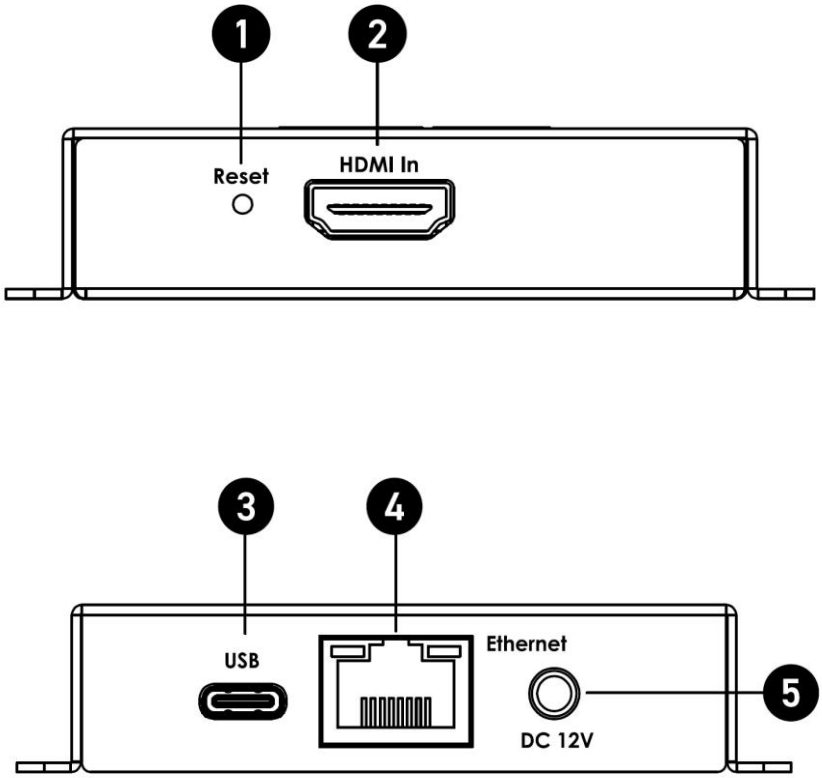
# Product Description

aegis's 1080p Desktop Recorder has the advantages of low power consumption and high reliability, and supports long-term uninterrupted work. It can be widely used in web live broadcast, IPTV system, wireless image transmission, teaching recording and broadcasting, video conference, monitoring and other fields. The system has the basic encoding and streaming functions of traditional encoders.

# Software technical specifications

| Classification | Functions | Description |
|---|---|---|
| Audio Encoding | Sampling Rate | 16k, 32k, 44.1k, 48k |
| | Encode Rate Range | Arbitrary setting, recommended 64k~256kbps |
| | Encoding Format | AAC, PCMA, MP3, MP2 |
| | Gain Adjustment | -24db ~ +24db, The default is 0, without adjusting the gain |
| Video Encoding | Encode Rate Range | 40Mbps |
| | Rate Control | CBR、VBR、AVBR、FIXQP |
| | Encoding Format | H.264、H.265 |
| | Encoding Agreement | "H.265 Main Profile, Level 5.0 |
| | Advanced Encoding | H.264 Baseline/Main/High Profile，Level 5.1" |
| Network Agreement | General Agreement | SmartP，DualP，ROI |
| | SRT | HTTP, HLS, RTSP, RTMP streaming, RTMP streaming, UDP, multicast |
| | NDI | Support |
| Other functions | Multi-Platform Live Broadcast | Support |
| | Network Input | Supports simultaneous live streaming on any multi-platform |
| | Group Management | Support rtsp, rtmp and other formats of network stream input encoding, re-encoding, directing, etc. |
| | Net Weight | 126g |
| | Dimension: L*W*H | 88*57*18mm |

# Connection Diagram




1. Reset: Reset button
2. HDMI In: Support standard HDMI 1080P format input source
3. USB-C: Support USB-C 5V1A power input
4. Ethernet: RJ45
5. DC 12V: Support external DC 12V 1.3Φ power supply

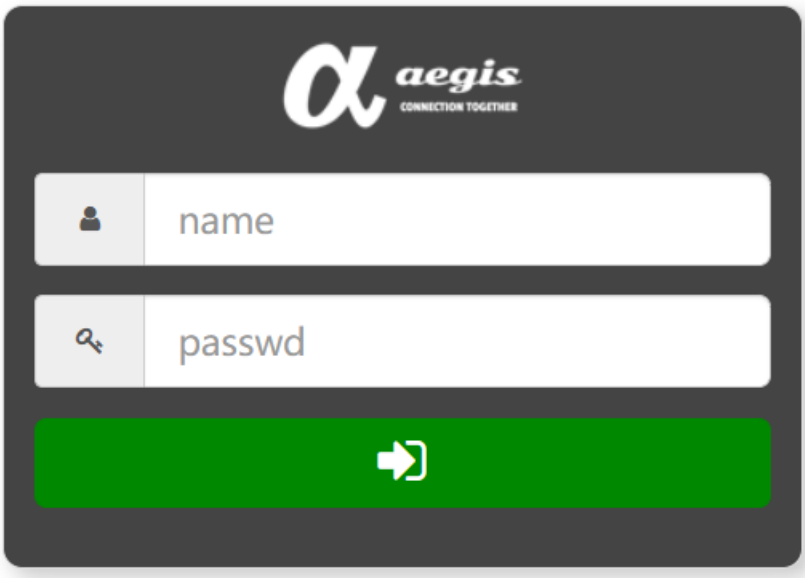
# Start Using

## 1. Connect to the power supply and the network

- Connect the 1080p Desktop Recorder to the switch via the network cable.
- Use USB A TO Type-C cable to connect to 1080p Desktop Recorder for power supply
- The default IP of the encoder is 192.168.1.217. If your network is in another network segment, you can refer to [FAQ] for configuration

## 2. Log in to the device

- Through the browser (Chrome browser is recommended), search for http://192.168.1.217 (default)




- Default login account: admin password: admin

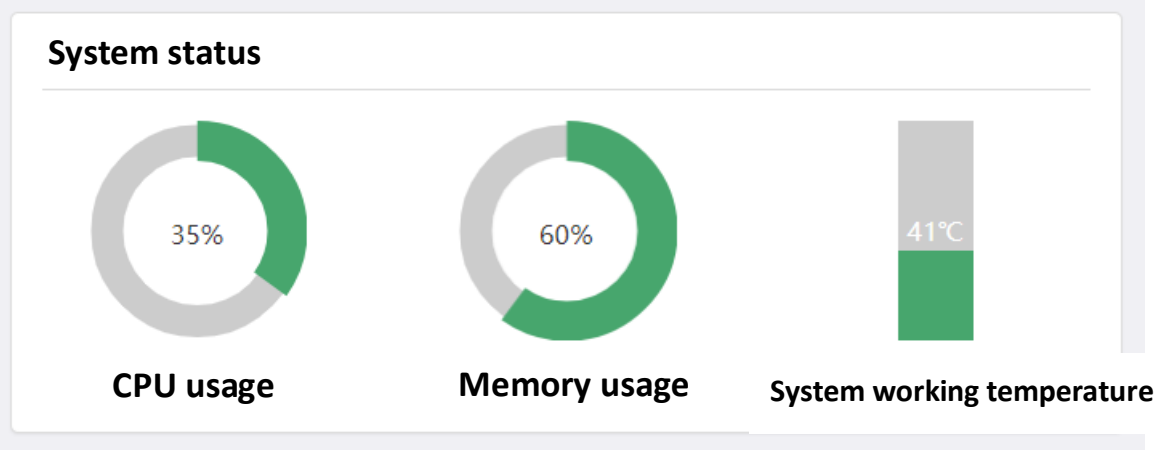
## 3. Connect the signal source

- Before starting to use, first connect the video source device to 1080p Desktop Recorder through HDMI cable
- Confirm that the output resolution is up to 1080P

# Detailed Web Page Function

## Operating Status

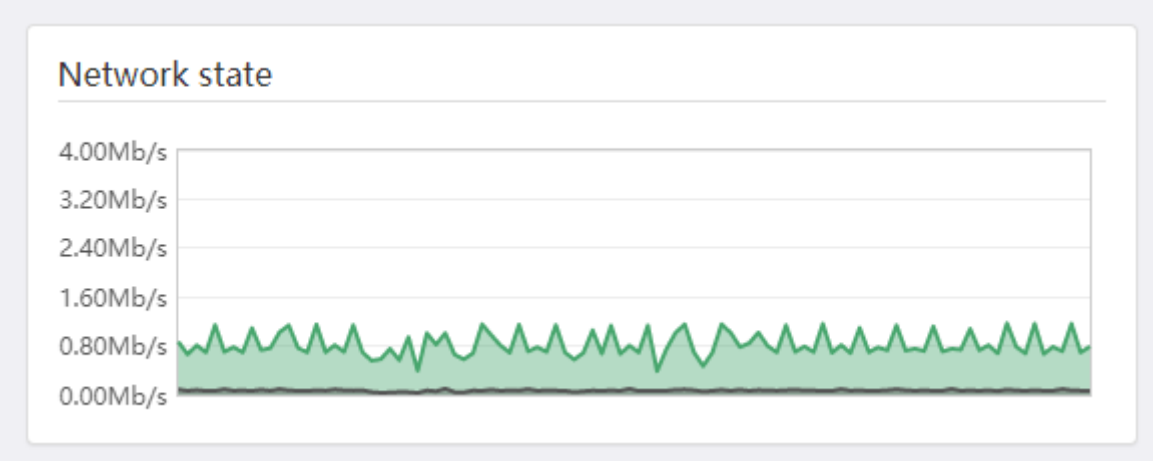
## System Status




### The system status is divided into 3 parts

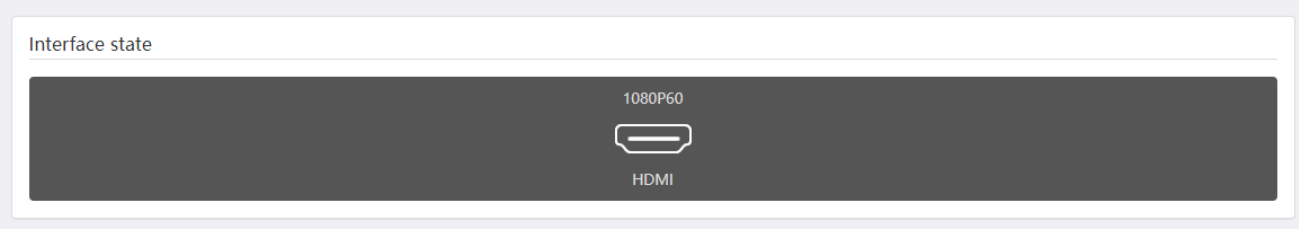
- **CPU usage**：It is generally recommended not to exceed 85%. If it exceeds, please turn off unimportant functions.
- **Memory usage**：When the recording function is not activated, the memory usually stabilizes at a stable value.
- **Core temperature**：Normally, there is a risk of damage if it exceeds 100 degrees. It is recommended not to exceed 70 degrees, if it does, please improve the use environment to reduce the temperature.

# Network status




**The network status shows the upstream and downstream status of the network card at that time. The dark green represents the upload rate (output stream), and the light green represents the download rate (input stream).**

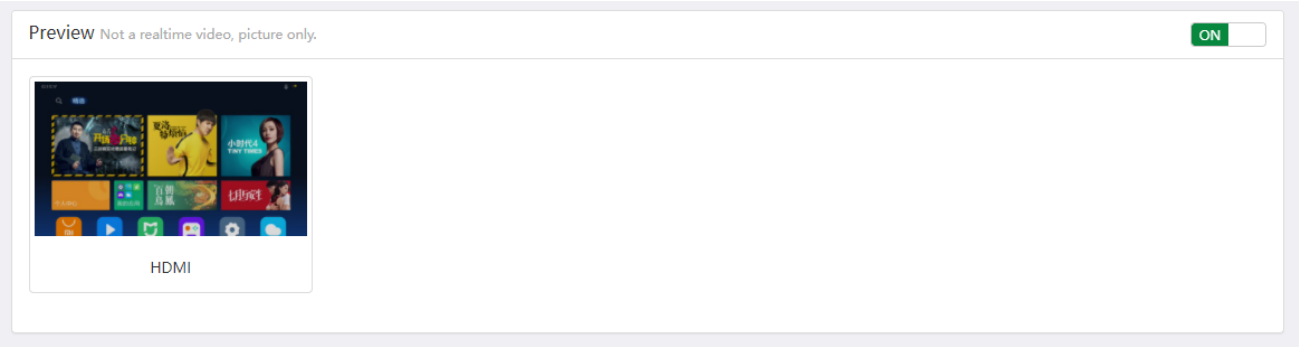
# Port status




**The upper part of the icon is the current input status, and the lower part is the interface name.**

**When the input source is changed, the current input source resolution and Frames will be displayed here.**

# Preview

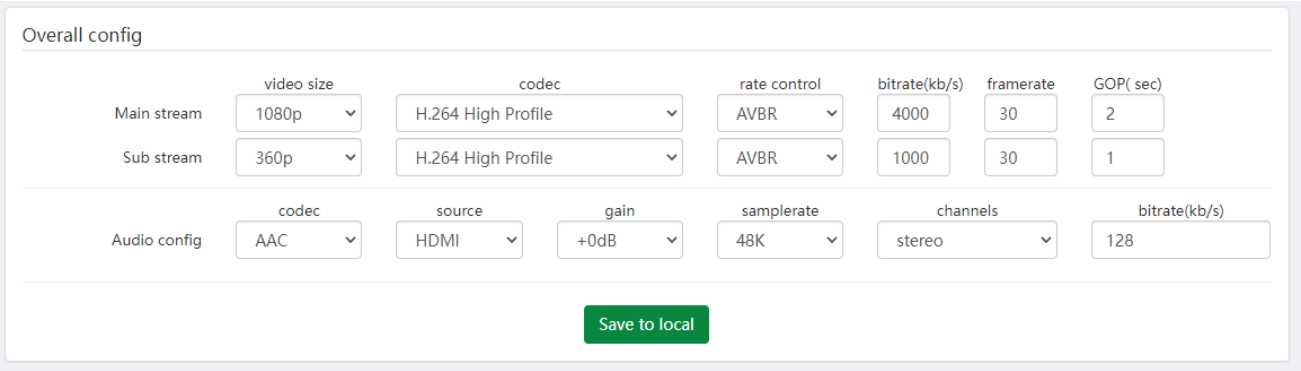



**In order to be compatible with different browsers and taking into account the protection of the user's computer performance, the preview here uses jpeg refresh technology, which is not an instant picture, so it is normal to feel stuck and delayed.**

**The switch button in the upper right corner can be used to turn off the preview function. In the wireless network state, turning off the preview function helps to improve the smoothness of the operation.**

**Only the preview screen is displayed here. If the default switch is turned on (the network input screen needs to be decoded at the same time), the preview screen will also be displayed in this area.**

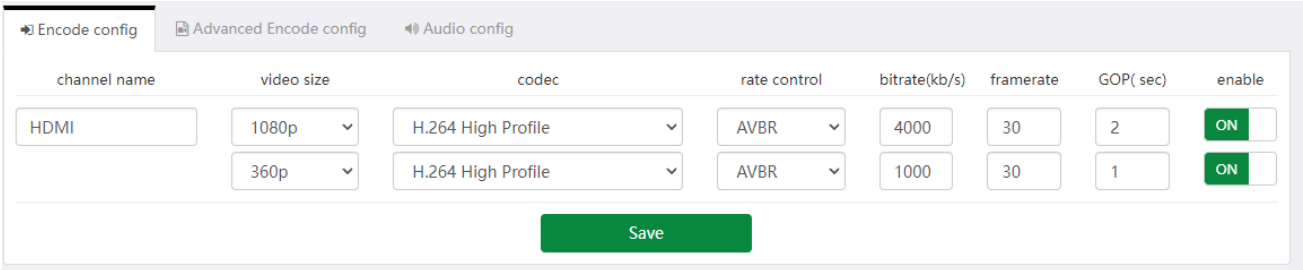
# System Program




**The basic parameters of video coding are shown here, which are used to quickly and uniformly modify the system settings of all devices. After configuring the system settings, click the "Apply this unit" button to automatically set all the parameters of all devices to be consistent.**

**The encoding method also provides H.265. After H.265 is set, it will take effect after rebooting.**

# Encoding Parameters

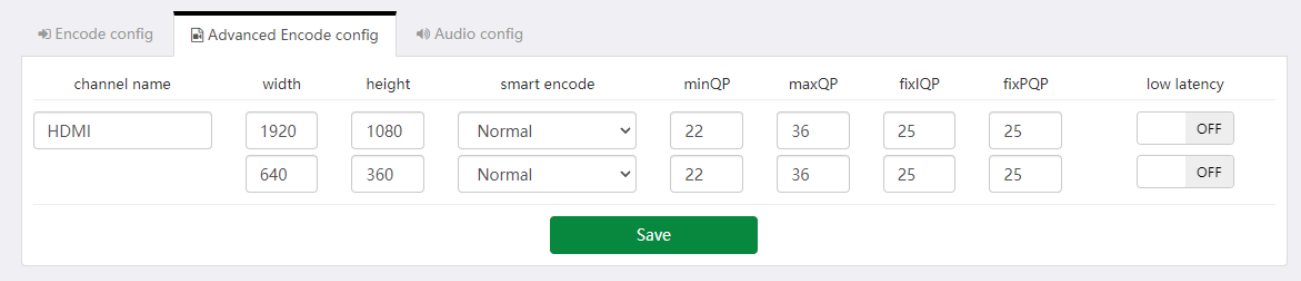



**This is the same as some of the parameters of "All Settings", but each one corresponds to one encoding device. Each device can be set to different encoding parameters. The first line of each device parameter is the main encoding parameter, and the second line is the backup encoding parameter. .**

- **Channel name**: It can be displayed on pages such as execution status, which is convenient for distinguishing and managing.
- **Resolution**: The encoding resolution can be different from the input resolution. The list lists common resolutions. If you need other resolutions, you can check the "Advanced encoding parameters" below.

- **Coding mode**: Here you can select the codec and profile of the video coding.
- **Rate control**: CBR, VBR, AVBR, etc. can be selected. If you are not sure which one to choose, it is recommended to use AVBR. In most cases, you can get the best results.
- **Bit rate**: Video bit rate in kbps
- **Number of Frames**: 1~60 frames
- **Switch**: The main switch of the device

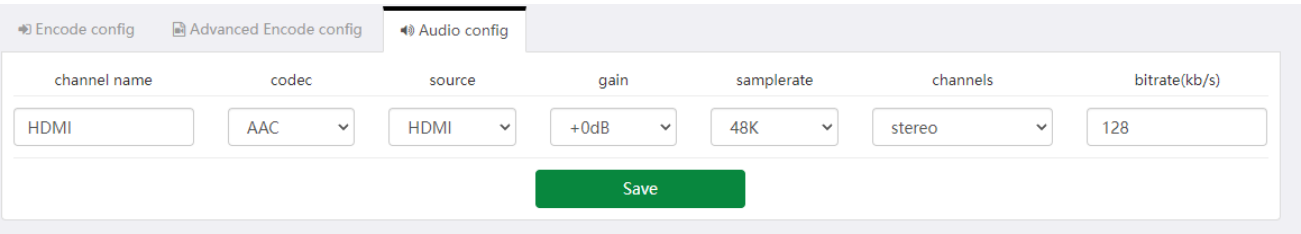
# Advanced Coding Parameters




**Here you can set advanced parameters about video encoding.**

- **Width and Height**: Used to set the resolution that is not in the resolution list of encoding parameters. After setting here, the encoding parameter list will be blank, which will not affect the use.
- **Advanced encoding mode**: Advanced P frame mode, which can improve the encoding quality under the condition of the same bit rate, but will increase the key frame interval. SmartP is more suitable for static scenes and DualP is more suitable for high dynamic scenes. Please pay attention to enable it here Later, it will cause the ROI function to fail.
- **minQP, maxQP**: Used to set the quality range of video encoding in VBR rate control mode.
- **fixIQP, fixPQP**: Used to set the frame and P frame quality in FlxQP rate control mode.
- **Low-latency encoding**: Turn on or turn off this function, and it will take effect after restarting. Turning on low-latency encoding can reduce the encoding delay. The encoding resolution must be consistent with the input resolution.

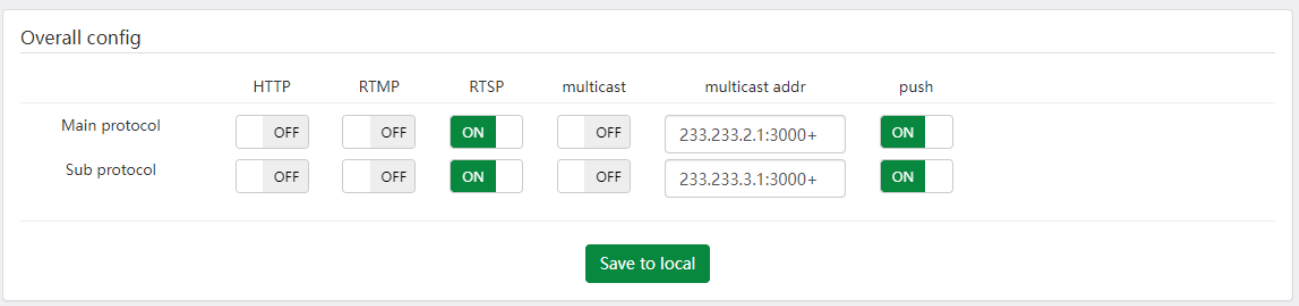
# Audio parameters



- **Encoding mode**: Optional values "AAC, PCMA, MP3, MPEG2, off", when "off" is selected, the output stream is only video.
- **Audio source**: You can select the HDMI or Line as input audio source.
- **Gain**: Perform digital gain processing on the input audio data. Because it is digital processing, the sound quality may be affected. It is recommended to adjust the volume at the source end as much as possible.
- **Sampling rate**: Optional values "16K, 32K, 44.1K, 48K".
- **Channel**: Optional "stereo, mono".
- **Bit rate**: Audio coding rate, in kbps, it is recommended to set 128 or higher for 48K stereo.

# Output Settings

# Global Configuration




**You can set the common protocol switches of all channels uniformly, including: HTTP (TS), RTSP, multicast (UDP multicast/unicast), livestream broadcast (Client/rtmp, rtsp, etc.).**

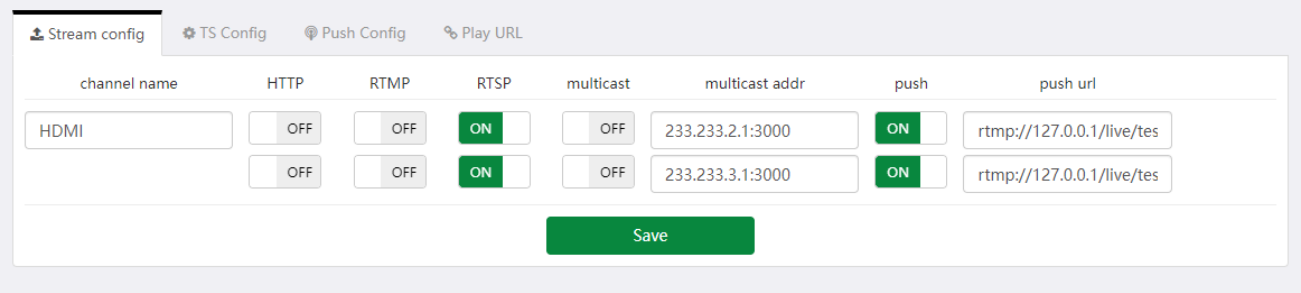
**Among them, the multicast address supports the auto-increment setting of IP or Port:**

**For example, if you set "233.233.2.1:3000+", the channel multicast address will be: "233.233.2.1:3000", "233.233.2.1:3001", "233.233.2.1:3002"...**

**For example, if you set "233.233.2.1+:3000", the channel multicast address will be: "233.233.2.1:3000", "233.233.2.2:3000", "233.233.2.3:3000"...**

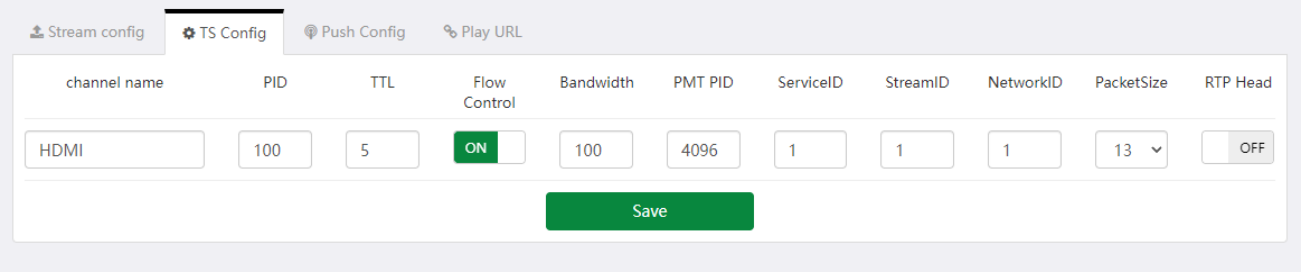
**Note that multicasting requires the permission of the network environment, and usually requires a switch with IGMP management functions and correct configuration. If you need UDP unicast, you only need to modify the multicast address to the IP address of the target device.**

# Stream Configuration




**It is used to set the common output protocol switch and address of each channel, and the livestream broadcast address supports livestream streaming protocols such as rtmp/rtsp.**

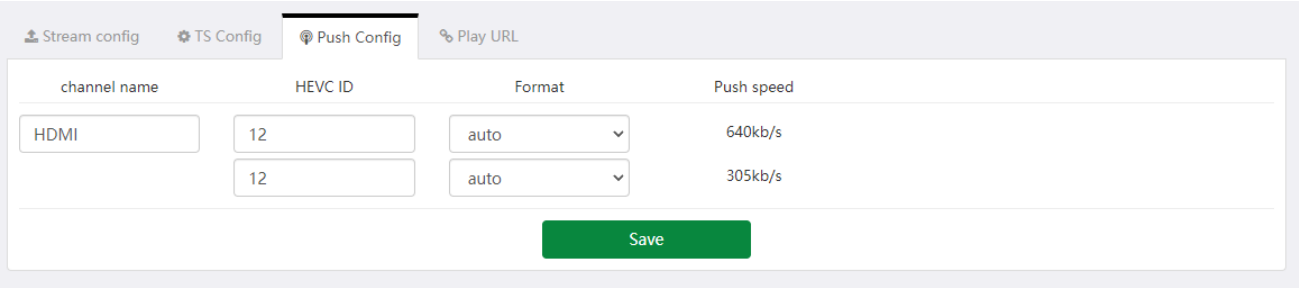
# TS settings




**It is used to set the parameters of mpegts encapsulation in HTTP and multicast (UDP) protocols. For details, please refer to the definition of mpegts format.**

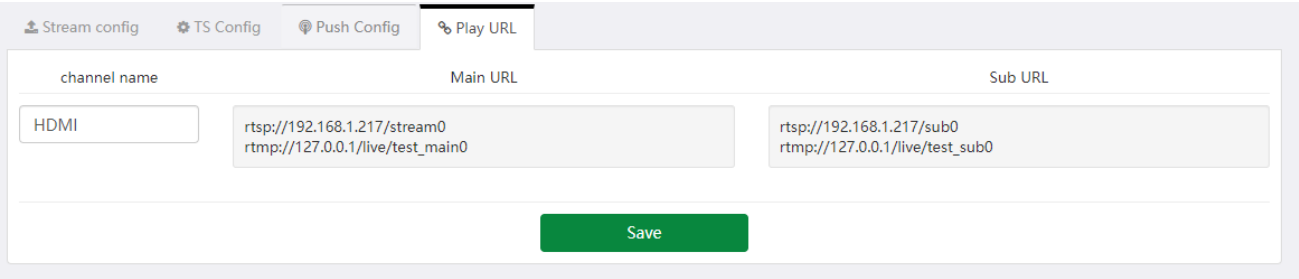
- **Flow control and bandwidth**: Two parameters are used to limit the maximum rate of UDP transmission and prevent the loss caused transmission too fast.
- **RTP Head**: When this switch is turned on, the TS stream sent by UDP will additionally carry the RTP header.

# Livestream Settings




- **HEVC ID**: Since the flv package used by the standard rtmp does not support HEVC (H.265) temporarily, it is necessary to extend the package by customizing the extension ID. The general ID is 12
- **Format**: It is recommended to select “auto”.
- **Upload speed**: When the channel livestream is turned on, the instant livestream upload rate can be displayed here.

# Play URL

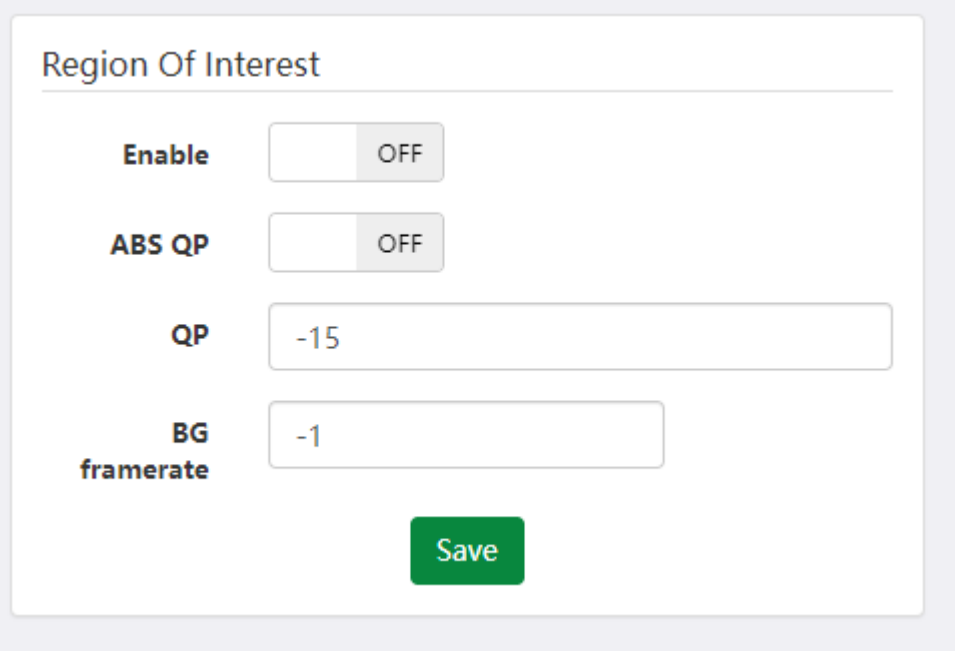



**As shown in the figure above, here will organize all the playable protocol addresses in this interface according to the output protocol you currently open, so that it is convenient to copy to other playback systems for use.**

# Extensions

## ROI

### Region of Interest Code



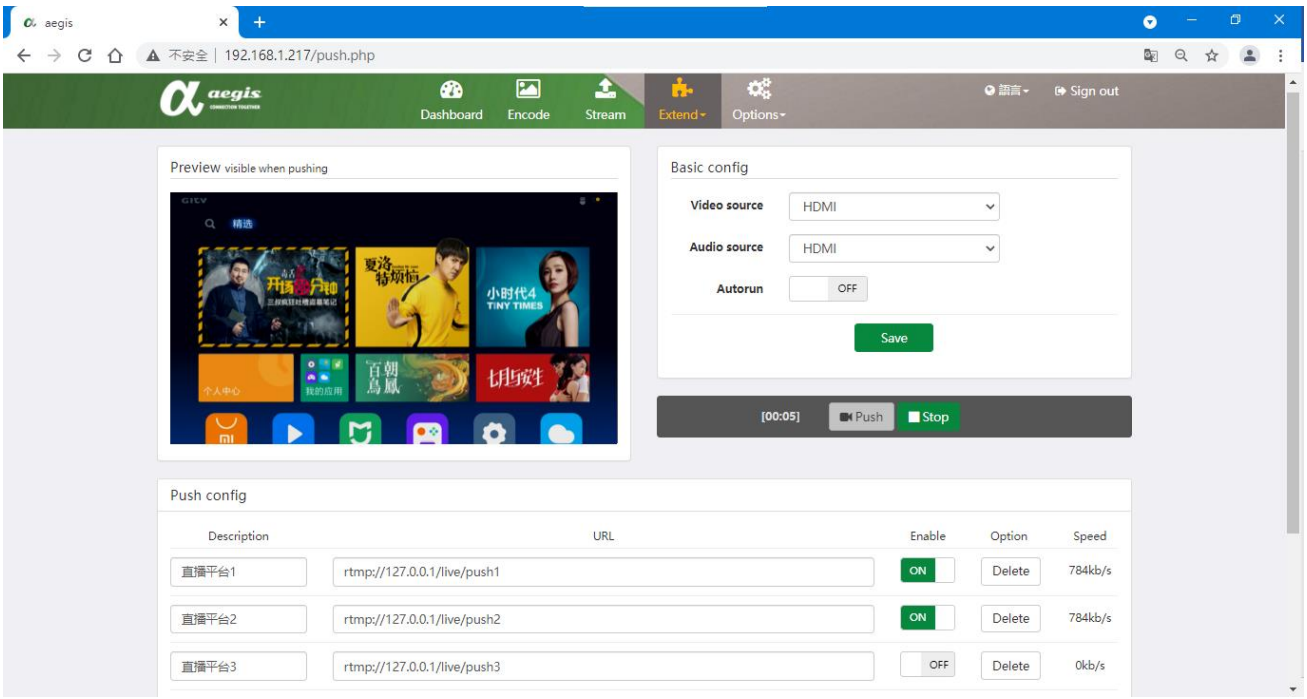

**This function can be used to improve the coding quality of key areas and improve the subjective visual experience when the bit rate is low.**

- **Switch**: Turn on or turn off the ROI function
- **Absolute QP**: Turn on or off absolute QP, see the QP parameter description below for its function
- **QP**: When the absolute QP is turned on, the code QP of the selected area is fixed as QP; when the absolute QP is turned off, the code QP of the selected area is the current QP+ set QP, so setting a negative number can improve the coding quality of the selected area, and vice versa.
- **Number of background frames**: -1 means that the number of frames outside the selection does not change; when it is greater than 0, it means that the number of background frames is the set value.

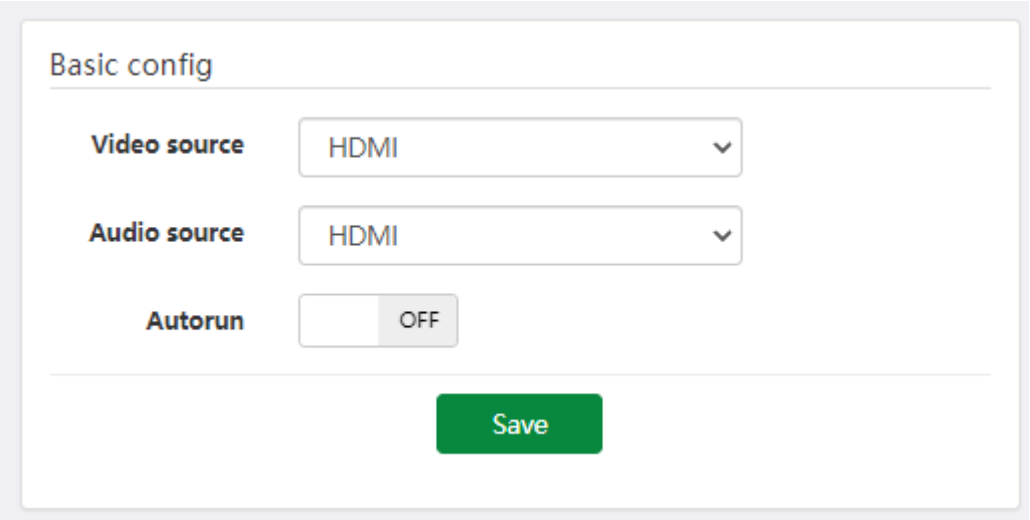
**Note**: The preview screen is only used to assist in delimiting the selection area, and the changes in encoding quality and Frames will not be reflected in the preview image.

# Multi-platform live broadcast

**This page is used to publish the same stream to multiple live broadcast platforms in parallel, which is convenient for users to do simultaneous live broadcasts on multiple platforms. When the live broadcast starts, you can preview the broadcast effect here.**

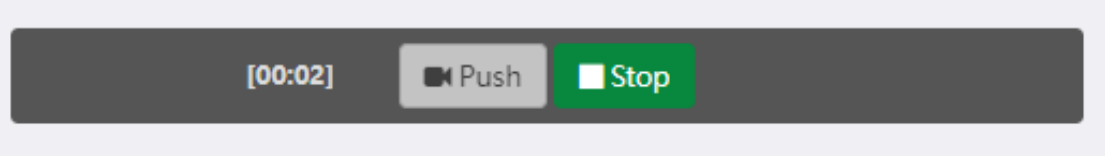


# Basic Settings




- **Video source**: Select the live video source
- **Audio source**: Select the audio source of the live broadcast
- **Automatic execution**: After turning on, every time the device is powered on, it will automatically try to turn on the livestream broadcast.
- **Apply**: Save the current settings.

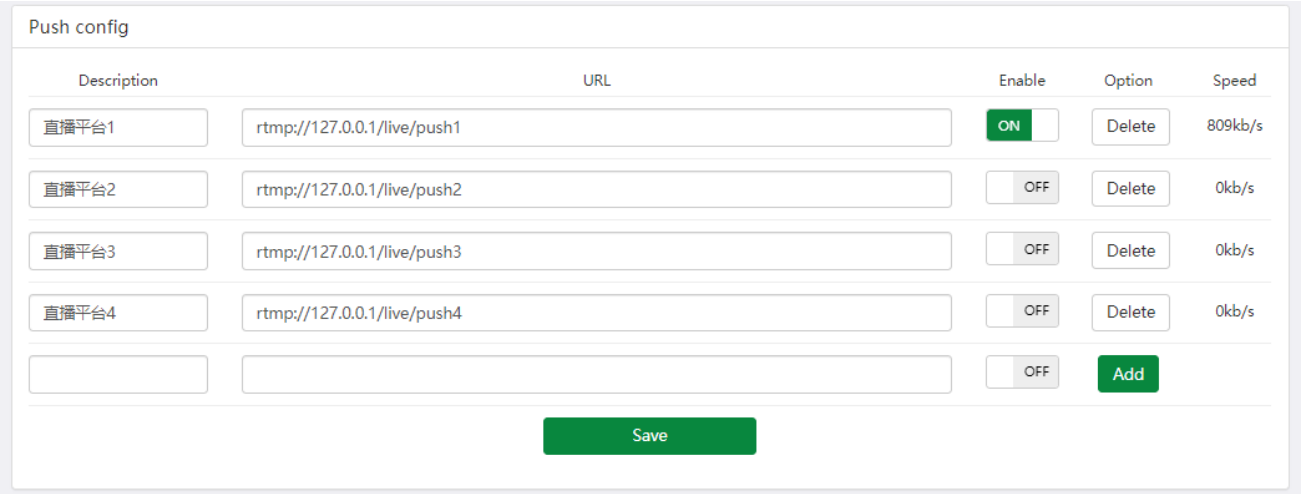
# Control column




**Show air time on the left**

- **Livestream broadcast**: start livestream broadcast
- **Stop**: stop livestreaming

# Livestream settings

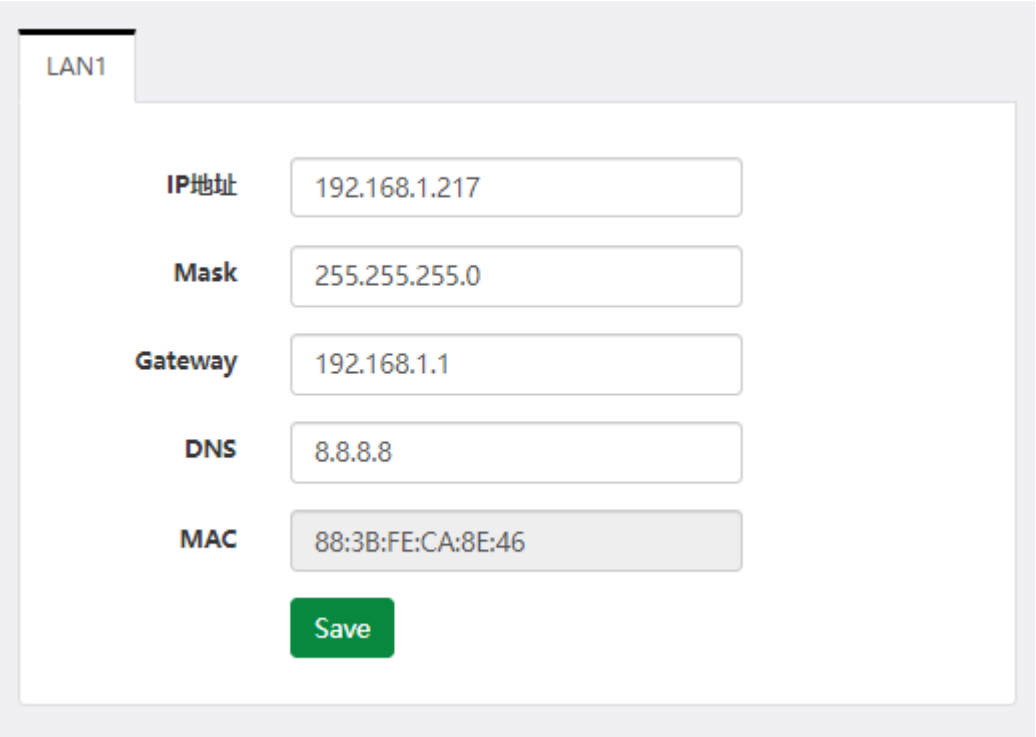



- **Description**: Enter any piece of text to describe this livestream channel, it is recommended to fill in the platform name
- **URL**: Fill in the URL provided by the live broadcast platform (usually composed of a streaming URL + key)
- **Enable**: Indicates whether to enable this channel when starting to livestream
- **Delete**: Delete the current livestream channel
- **New**: Add a new livestream channel
- **Speed**: The upload rate of the current livestream channel

# Advanced Settings

## System Program

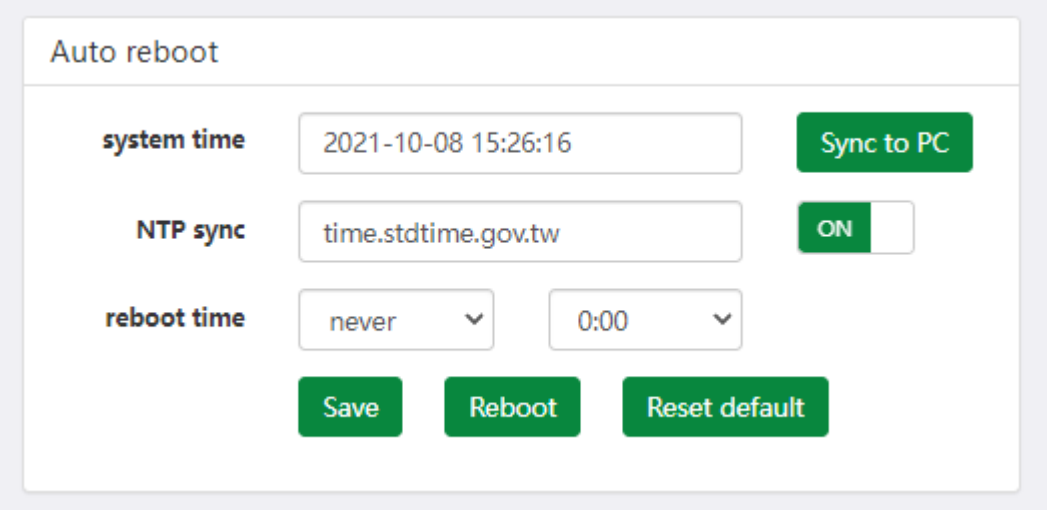
### Wired Network Settings




**In the network settings, the original default IP address is 192.168.1.217, and the user can customize the fixed IP location. After applying, the newly set IP location must be used when connecting to the web next time.**

**Note: If you forget the password, you can only solve it by restoring the factory settings (long press the Reset button after startup)**

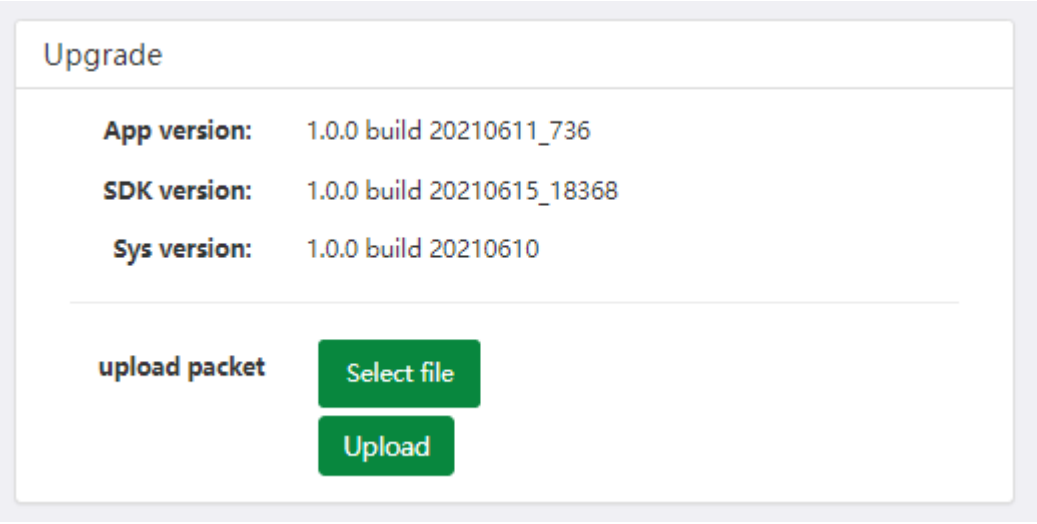
# Maintenance




- **Local synchronization**: Synchronize the encoder with the user's system time
- **NTP synchronization**: Synchronize with the NTP server every time you boot (need to be able to connect to the external network and configure the correct dns)
- **Maintenance time**: The time for automatic restart, usually not required

Note: You don’t need to restart after synchronizing the time. This device cannot store the time. It needs to be reset when the power is turned off.

# System Update

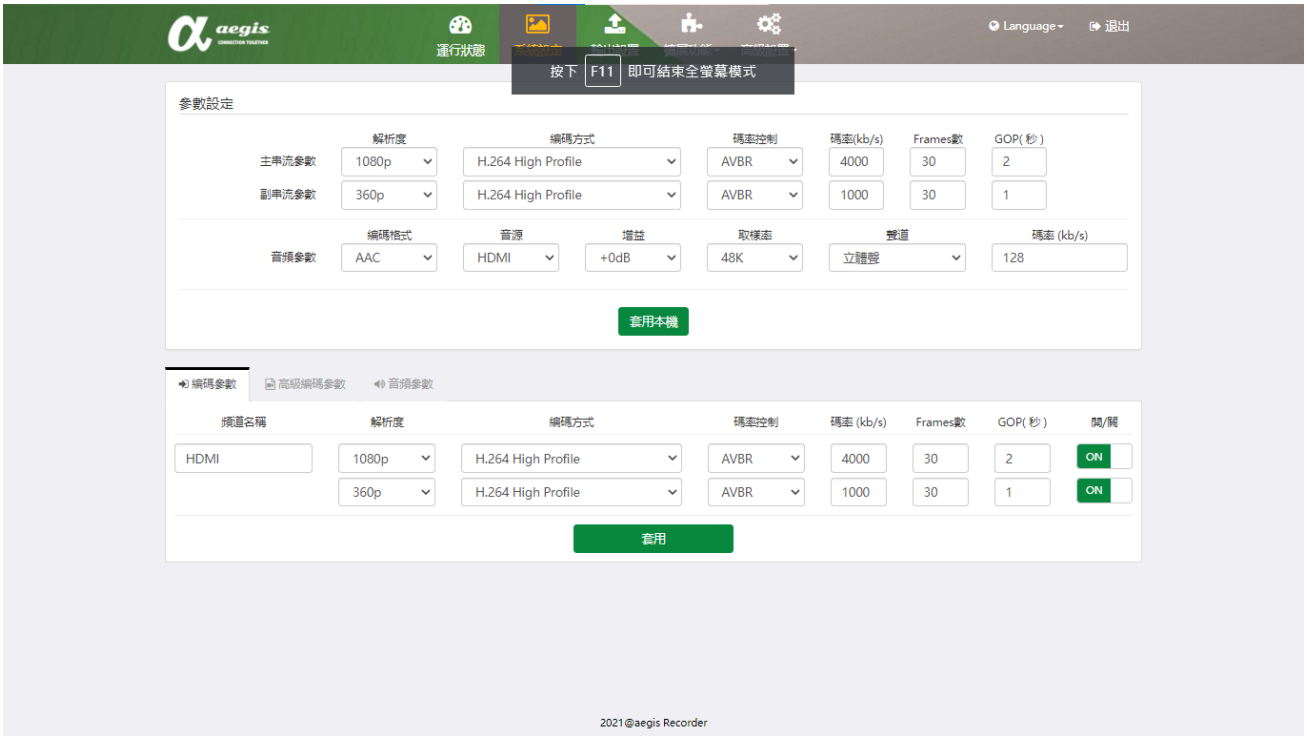



- **Upload update**: Click to select the file, select the update file, and click to start uploading. After

the file is uploaded successfully, power off the system and restart it.

# Change language

**It supports two languages, Chinese and English, which can be switched through Language on the interface, as shown in the figure below:**




# Common Problem

**How to turn on the encoder if the computer IP is not 192.168.1.X?**

- **Q: My computer's IP is not in the network segment of 192.168.1.X, how to turn on the encoder**
- **A: In your network card properties, add a 192.168.1.X network segment IP, such as 192.168.1.100**

**At the moment, you can turn on the encoder, enter the system settings page, modify the encoder IP, or turn on the encoder's DHCP, and save. The above method is suitable for the computer using**

**a non-dynamic IP, if your computer's IP is automatically obtained (DHCP), you need to change to non-dynamic IP.**

**How to find the IP of the encoder?**

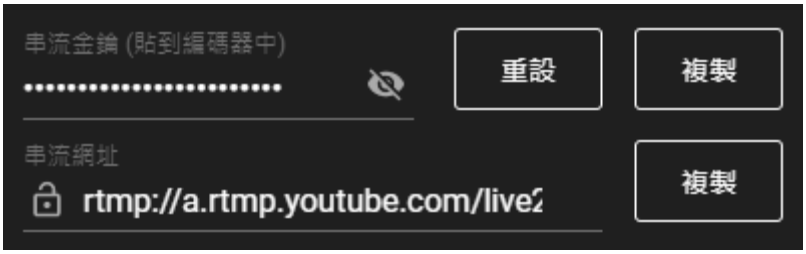
- **Q: I forgot the encoder IP. How to find it?**
- **A: You can use the spare IP 192.168.88.88 of the encoder, refer to the previous question, add a 192.168.88.X IP to the computer, and search for 192.168.88.88 through the browser to retrieve or modify the IP of the encoder.**

**No signal after switching to H.265 encoding**

- **Q: After switching to H.265, the screen can't run out. What should I do?**
- **A: Power off the device and restart it, and confirm whether to switch to H.265 after restarting.**

**After the live broadcast URL and key are copied, the live broadcast cannot be performed**

- **Q: After the live broadcast URL and key are copied, the live broadcast cannot be performed normally.**




**The following is a sample URL**

Streaming key

- **A: "/" must be added between the streaming URL and the key.**