

# nT19AX01 | SC6C0 MINI HDMI/SDI/ STREAMING DEVICE WITH WIFI

**HDMI**<sup>®</sup>  
HIGH-DEFINITION MULTIMEDIA INTERFACE



**Operation Manual**

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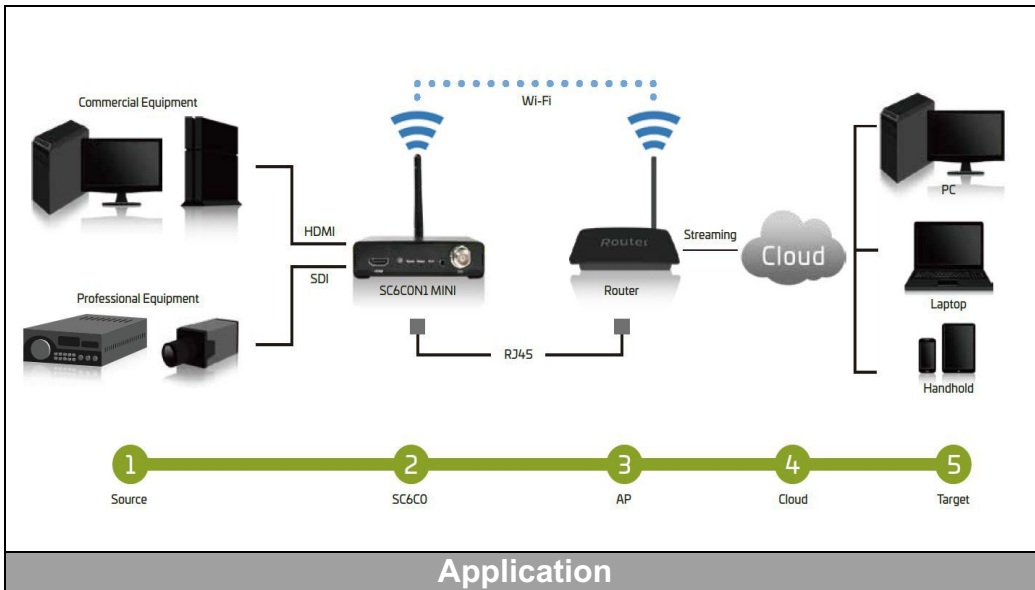
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**1. PACKAGE CONTENT**

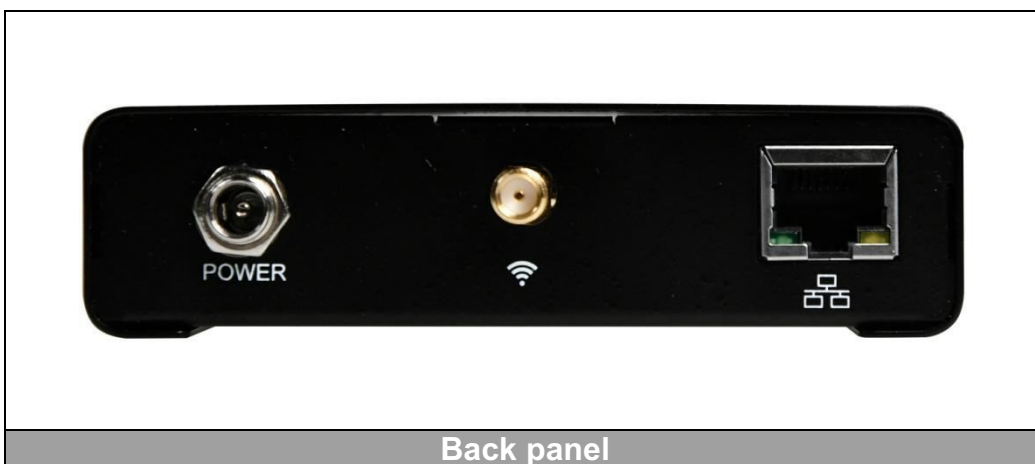
| Product Name | Quanties |
|--------------|----------|
| SC6C0N1 Mini | 1        |

## 2. PRODUCT INTRODUCTION

### 2.1. PRODUCT BRIEF



SC6C0N1 Mini provides 1 x 3G-SDI and 1 x HDMI for video signal input with audio embedded feature, it also provided a 3.5mm audio jack for stereo analog audio input



In front panel, SC6C0N1 Mini provides 1 control button and SDI / HDMI / 3.5mm audio jack for AV signal input.

In back panel, SC6C0N1 Mini provides Wi-Fi / RJ45 for internet connectivity.

Here are the control button press times and LED color meanings.

| <b>Control Button Press Times</b> |   |
|-----------------------------------|---|
| <b>Single press</b>               | Wi-Fi AP / Client Mode Selection<br><b>Green LED:</b> AP Mode<br><b>Red+Green LED:</b> Client Mode  |
| <b>Double press</b>               | Streaming Enable / Disable<br><b>Green LED:</b> Streaming enable.<br><b>LED off:</b> Streaming disable.                                   |
| <b>Triple press</b>               | Source Selection<br><b>Green LED:</b> HDMI Signal Locked.<br><b>Red LED:</b> Signal Unlocked.<br><b>Red+Green LED:</b> SDI Signal Locked. |

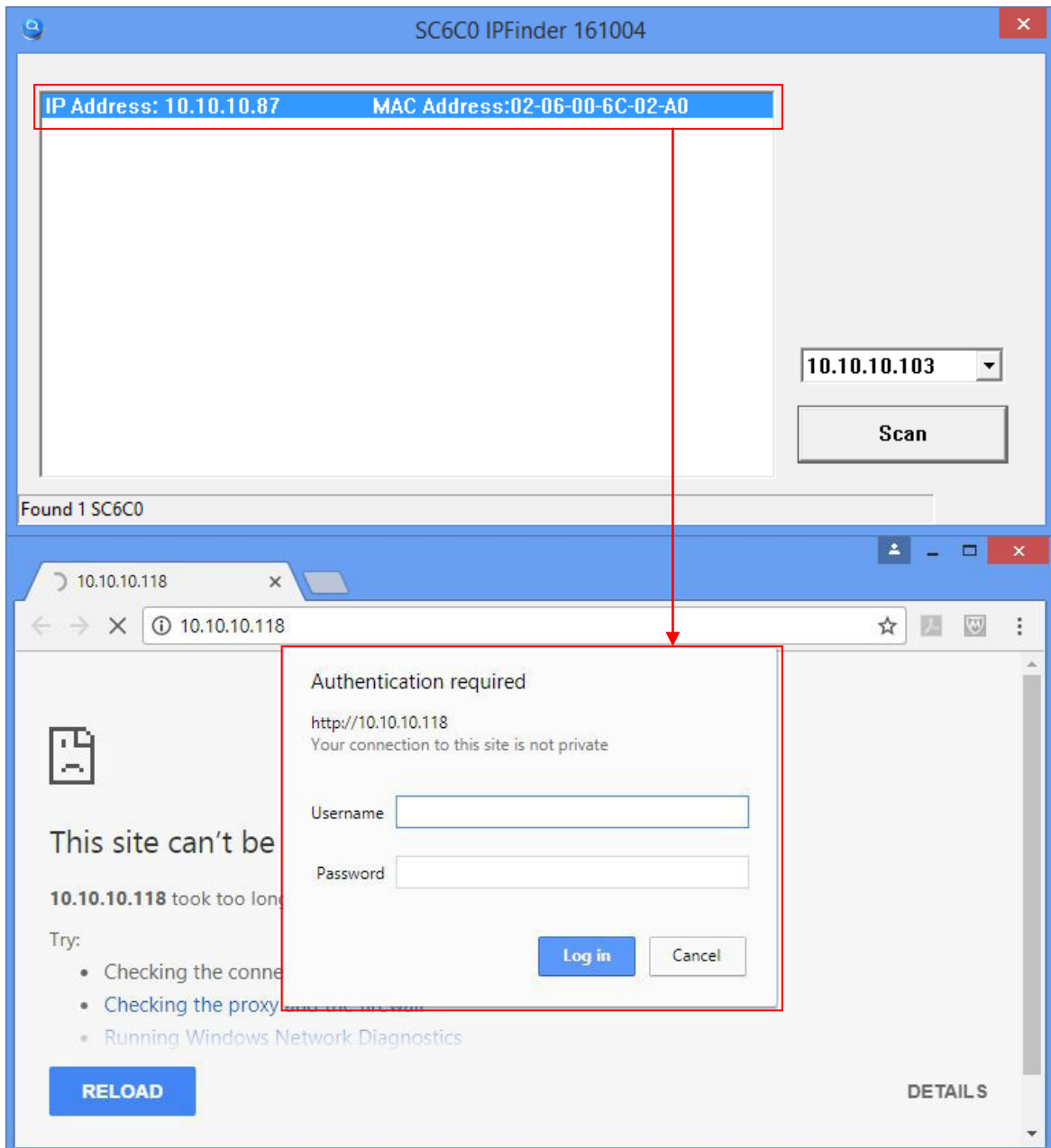
## 2.2. SPECIFICATION

|                                   |   |
|-----------------------------------|---|
| <b>Model</b>                      | SC6C0N1 Mini  |
| <b>Max. FPS</b>                   | 60/50fps @ 1920x1080p   |
| <b>Recording Mode</b>             | Hardware Compression, Real-Time Mode  |
| <b>Input Interfaces</b>           | <p>Video</p> <p>1 x HDMI<br/>1 x SDI</p> <p>Audio</p> <p>1 x 3.5mm stereo analog audio<br/>SDI/HDMI embedded audio</p>  |
| <b>Video Feature</b>              | <p>H.264/AVC , Baseline / Main / High Profile<br/>Configurable bit rate up to 10Mbps<br/>Supported Resolutions</p> <p>Input:</p> <p>1920x1080<br/>(P60/P50/P30/P25/P24/i60/i50)<br/>1280x720 (P60/P50), 1280x1024<br/>(P60), 1280x960 (P60)<br/>1024x768 (P60), 800x600 (P60), 720x480<br/>(P60/i60)<br/>640x480 (P60), 720x576 (P50/i50)</p> <p>Output:</p> <p>Resize Range from 160x128 to<br/>1920x1080(P60)<br/>*Output Include Down Scaling.</p> |
| <b>Audio Feature</b>              | <p>AAC-LC<br/>Configurable bit rate range from 32Kbps to<br/>384Kbps<br/>Sample rate : 48KHz, 16bit</p>   |
| <b>Network Feature</b>            | <p>1x RJ45 for 10/100Mbps Ethernet<br/>DHCP client</p> <p>Wifi:</p> <p>802.11b/g/n<br/>Support 150Mbps PHY rate</p>   |
| <b>Support Streaming protocol</b> | <p>TS over TCP/UDP/HTTP (unicast &amp; multicast)<br/>RTSP over HTTP/TCP/UDP (RTSP<br/>Elementary Stream)<br/>RTMP(Publish)<br/>HLS</p>   |
| <b>Peripheral Features</b>        | <p>Dynamic Parameter setting<br/>Web UI for system configuration<br/>Firmware upgradable<br/>LED indicator</p>  |
| <b>System Requirement</b>         |   |
| <b>Power Supply</b>               | DC 12V (With DC Adapter)  |
| <b>Device Size</b>                | 100(W)*26(H)*65.6(D)mm  |

### 3. WEB UI

#### 3.1. IP FINDER

In the beginning, user can execute IP Finder to find SC6C0N1 Mini, please make sure host (PC) and target (SC6C0N1 Mini) are in the same netmask to make sure host platform and target platform can found each other.



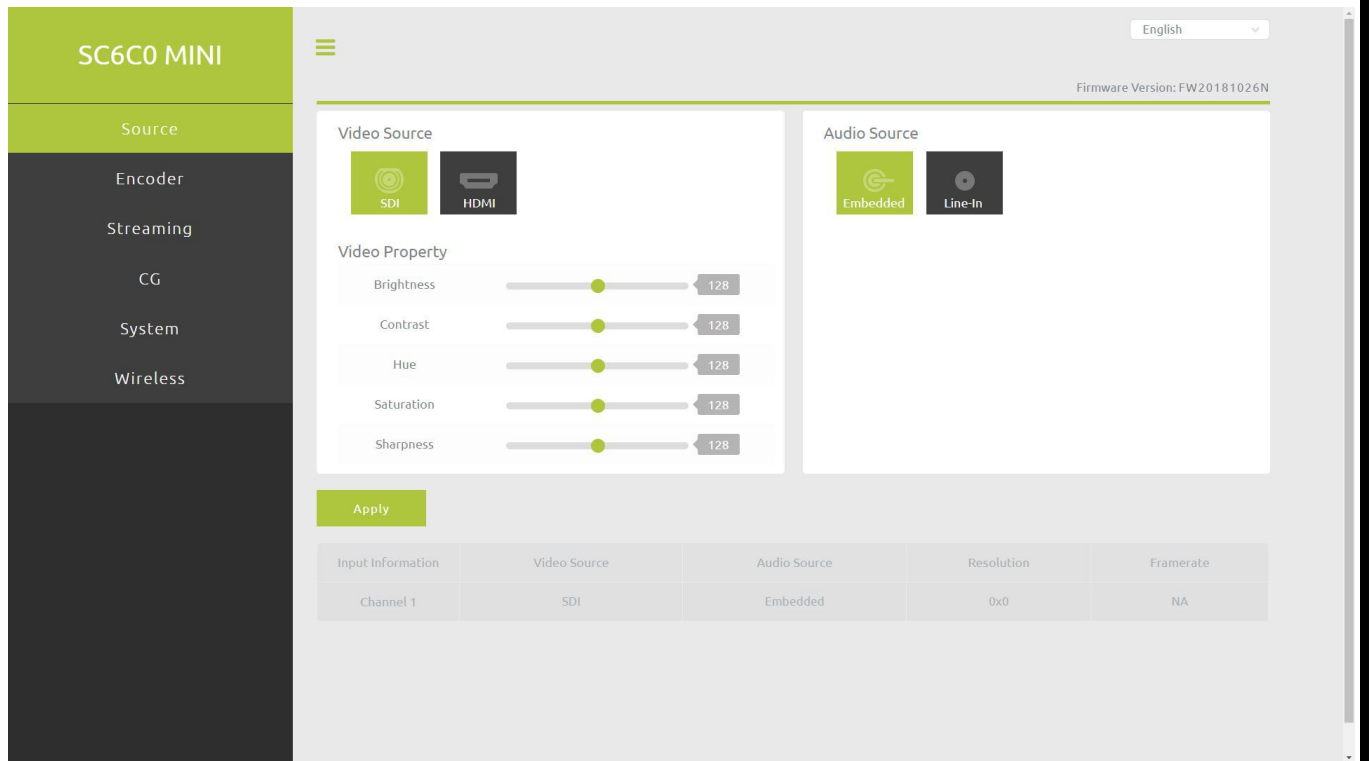
After double click the MAC address (The MAC address is provided in the bottom of SC6C0N1 Mini), the user will open the web browser automatically, please provide default user name and password to login the SC6C0N1 Mini.

Default user name: **admin**

Default password: **000000**

After login the system, the web UI will display inside browser automatically.

### 3.2. SOURCE

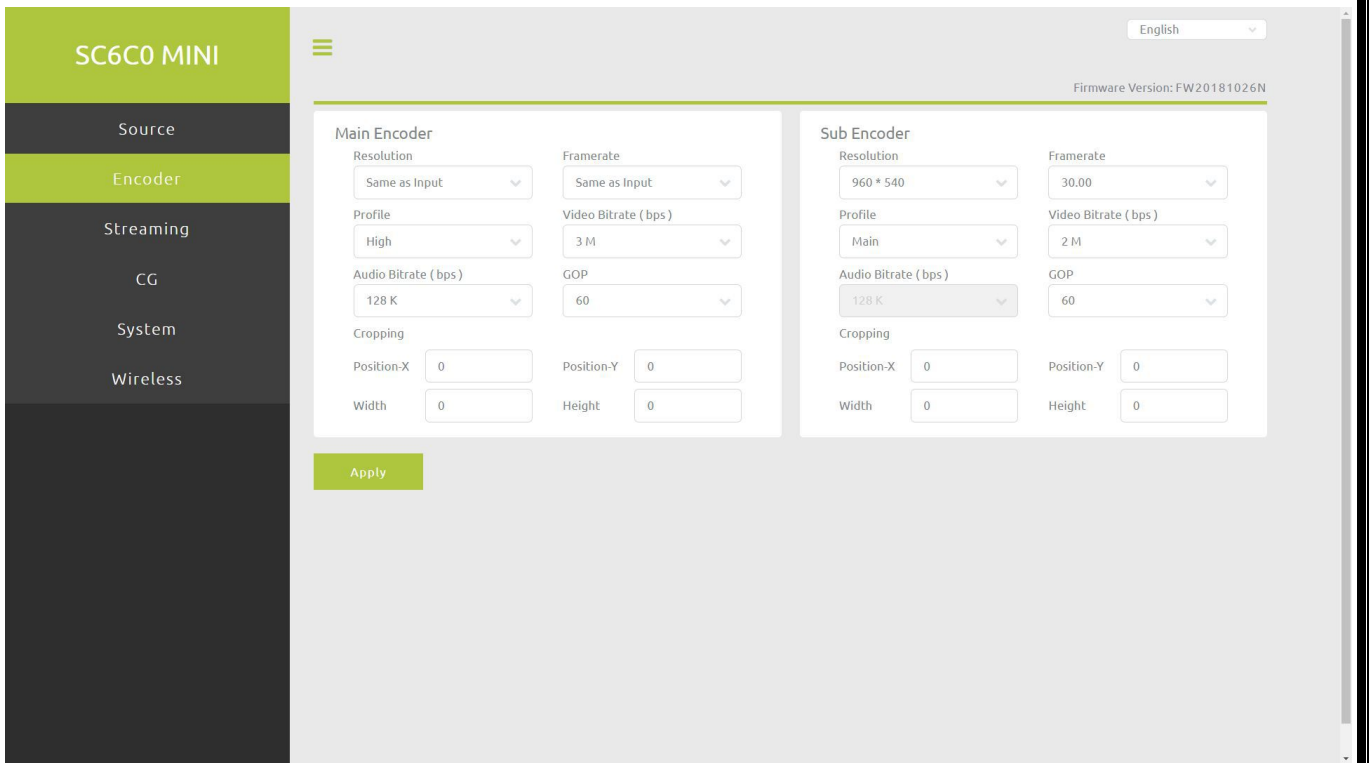


In source page, user can decide input interface and finetune video format.

| Video Tuning | Default | Range |
|--------------|---------|-------|
| brightness   | 128     | 0~255 |
| contrast     | 128     | 0~255 |
| hue          | 128     | 0~255 |
| saturation   | 128     | 0~255 |
| sharpness    | 128     | 0~255 |



### 3.3. ENCODER



In encoder page, user can change encode parameters here.

| Parameter             | Range                    |
|-----------------------|--------------------------|
| Resolution            | 1920*1080~160*128        |
| Framerate             | 60~1                     |
| Profile               | Baseline<br>Main<br>High |
| Video Bitrate ( bps ) | 16M~256K                 |
| Audio Bitrate ( bps ) | 384K~32K                 |
| GOP                   | 180~1                    |
| Cropping (X, Y, W, H) | Depending on screen size |

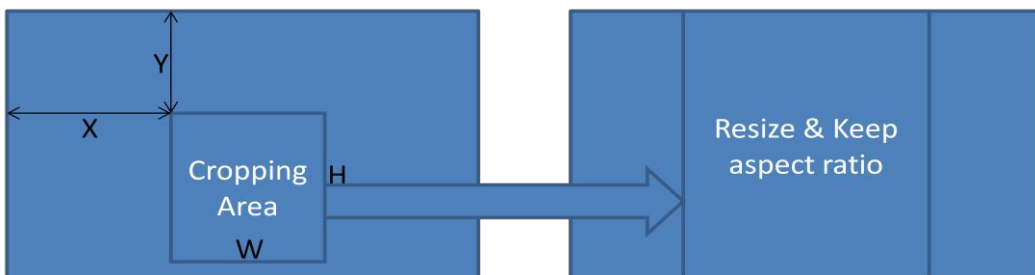
**H.264 Encode** User can adjust here for H.264 profile selection, it supports high, main and baseline.

**Cropping** The place and size of cropping are listed as below. The cropped area will displayed in keep aspect ratio mode.

Default value (X, Y, W, H) = (0, 0, 0, 0)

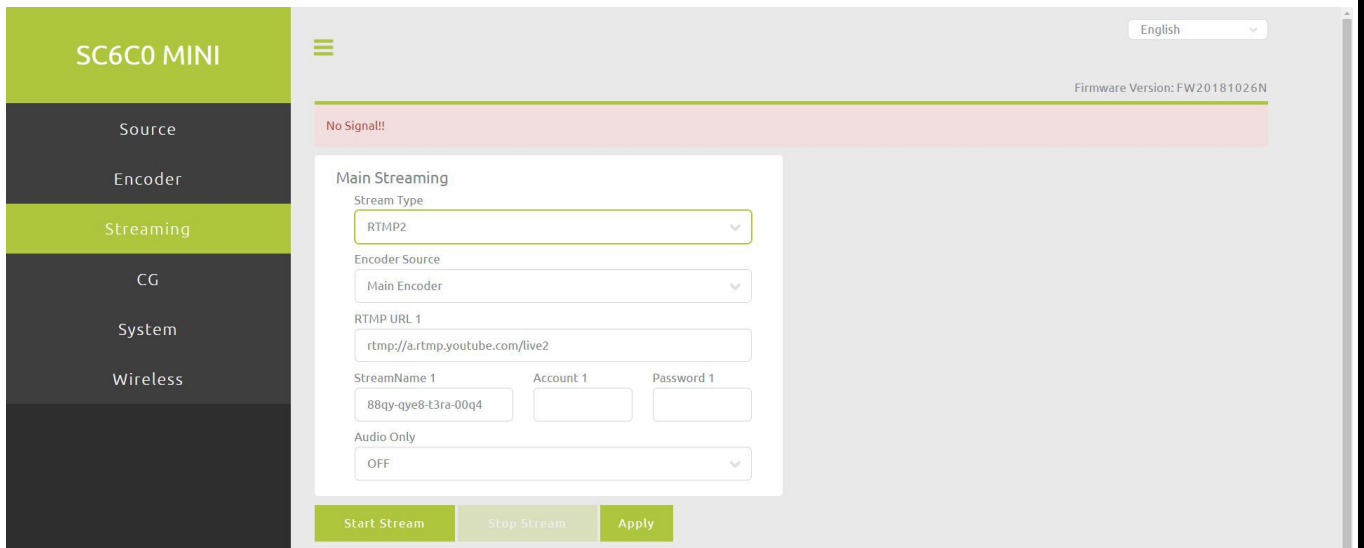
W Range : 128~1920

Y&H Range: 128~1080



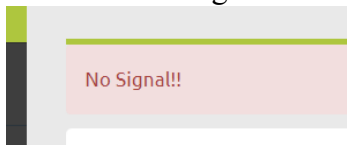
※ Please remind, if user had use only main stream, the SC001 can streaming 1080P60, but if activate main and sub streaming, the main streaming can exceed to 1080P30, sub streaming can exceed to 960\*540P30.

### 3.4. STREAMING



For streaming, here are **RTSP / RTMP / RTMP2 / TS / HLS / SRT / YouTube / FaceBook** streaming methods available. Streaming server function can be only activating when the AV signal is already input to SC6C0N1 Mini.

When the signal is not connect, SC6C0N1 Mini will generate an error message to remind user to connect the signal.



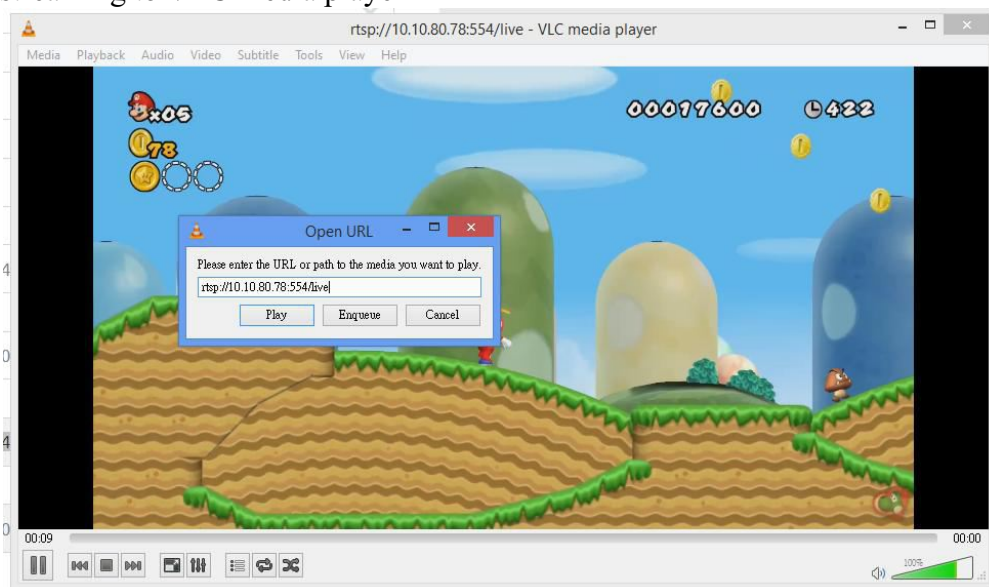
### 3.4.1. EXAMPLE: RTSP

The screenshot shows a configuration window titled "Main Streaming". It contains the following fields and options:

- Stream Type:** A dropdown menu with "RTSP" selected.
- Encoder Source:** A dropdown menu with "Main Encoder" selected.
- RTSP Port:** A text input field containing "554".
- RTSP HTTP Port:** A text input field containing "8000".
- RTSP Account:** An empty text input field.
- RTSP Password:** An empty text input field.
- Play URL (1):** A text input field containing "rtsp://192.168.0.1:554/live".
- Play URL (2):** A text input field containing "rtsp://192.168.0.1:8000/live".
- Play URL (3):** A text input field containing "rtsp://10.10.80.78:554/live".
- Play URL (4):** A text input field containing "rtsp://10.10.80.78:8000/live".

After selecting Stream Type to RTSP, the SC6C0N1 Mini will generate Play URL for user to receive RTSP stream.

Open VLC media player → [Media] → [Open Network Stream] or direct press [Ctrl]+[V] to print streaming to VLC media player



### 3.4.2. EXAMPLE: RTMP

RTMP can use for streaming live video to facebook, youtube, and etc.  
 Please enter youtube live and copy server URL to SC6C0N1 Mini for SC6C0N1 Mini to streaming video.

**編碼器設定**

伺服器網址  
 rtmp://a.rtmp.youtube.com/live2

串流名稱/金鑰  
 ..... 顯示

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**Main Streaming**

Stream Type  
 RTMP

Encoder Source  
 Main Encoder

RTMP URL 1  
 rtmp://a.rtmp.youtube.co

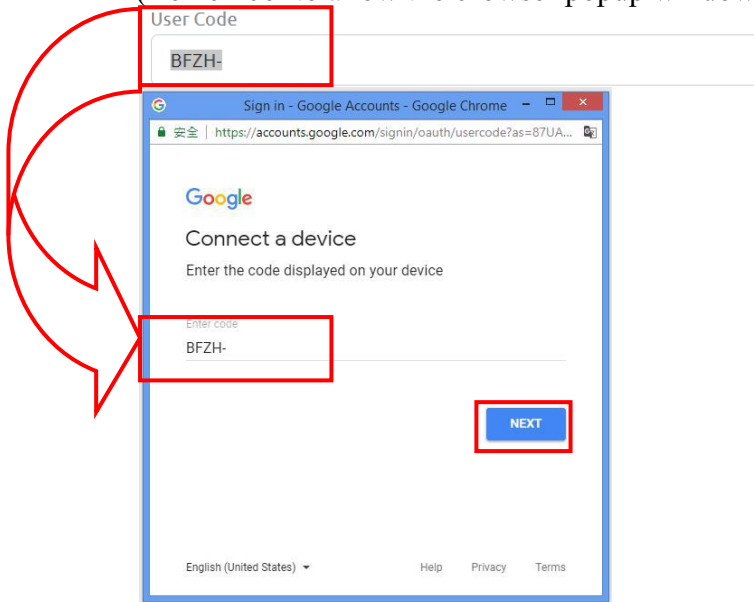
StreamName 1  
 0pqh-bfc6-

Account 1  
 Password 1

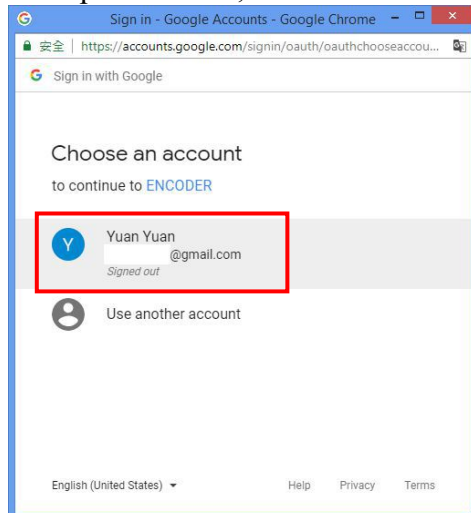
### 3.4.1. EXAMPLE: YOUTUBE

Besides RTMP, SC6C0 also provides a simple way for user to streaming their Live video to YouTube.

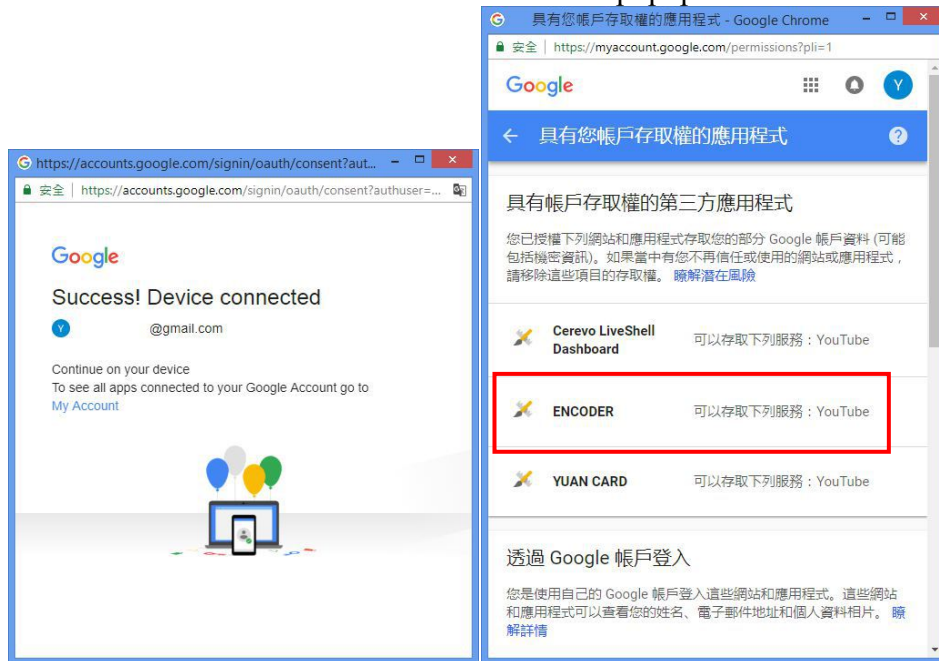
After select **Streaming Type YouTube** and press start streaming, SC6C0 will automatically generate USER CODE for user to connect with YouTube account. (Remember to allow the browser popup window for connecting youtube)



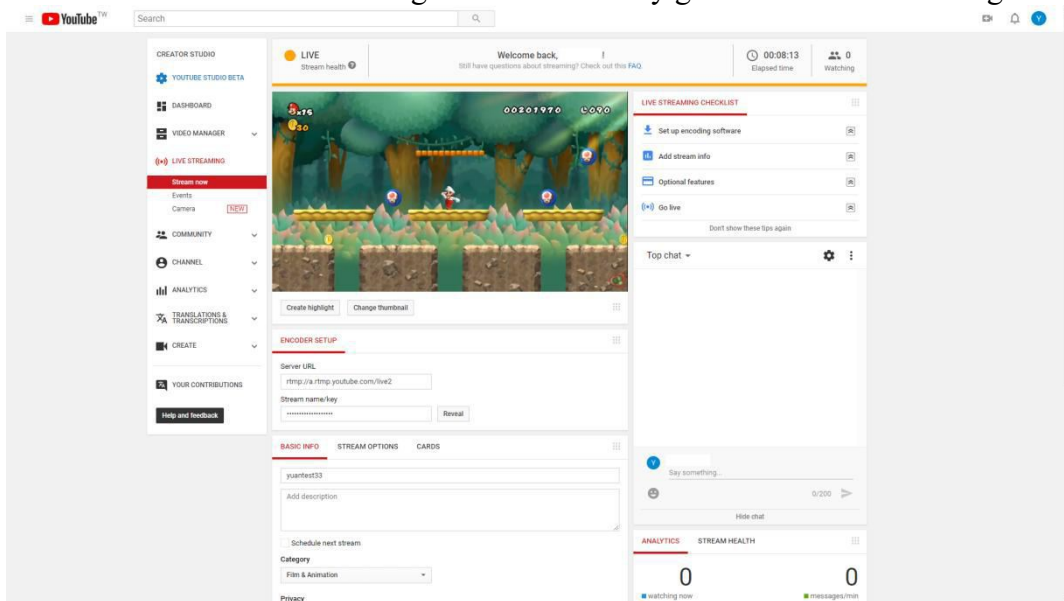
After press NEXT, the connectable user account will appear for user to select.



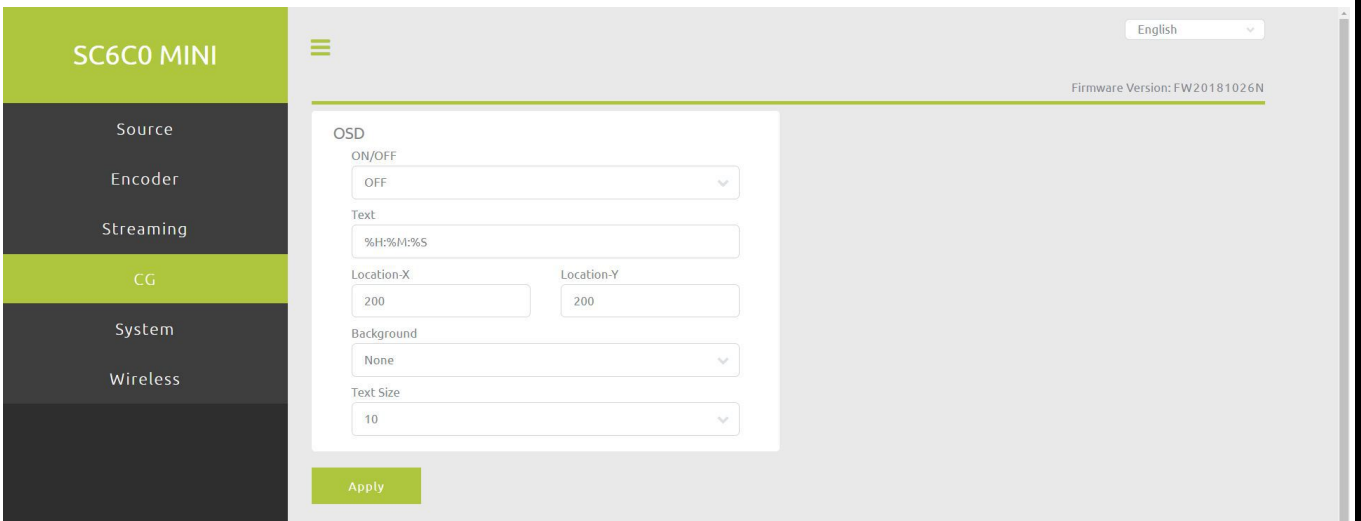
After the account is connected, the video will automatically live streaming to youtube; User can also check the connected SC6C0 inside the popup window.



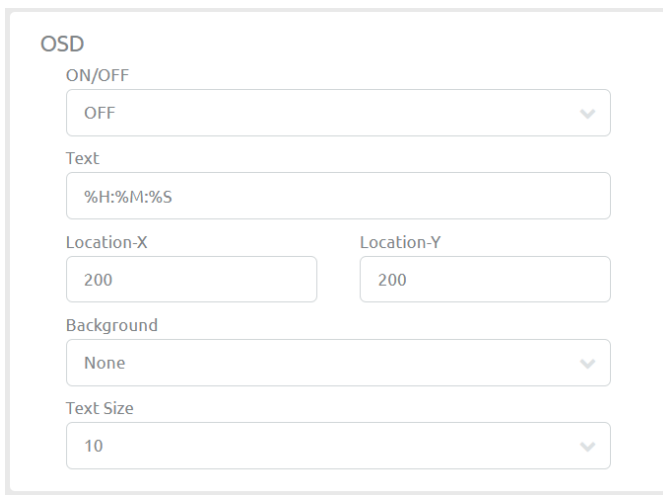
Youtube live video streaming will automatically generates after the setting is completed.



### 3.5. CG



#### 3.5.1. OSD



- ON/OFF:** Turn on or off OSD
- Text** Displayed OSD content
- LocationX:** OSD place X
- LocationY:** OSD place Y
- Background** OSD background enable/disable
- Text Size** OSD text size



### 3.6. SYSTEM

SC6C0 MINI

English
Firmware Version: FW20181026N

Source

Encoder

Streaming

CG

System

Wireless

**Network Setting**

DHCP ▼  
Enable(DNS AUTO)

Static IP  
192.168.1.60

Subnet Mask  
255.255.255.0

Default Gateway  
192.168.1.254

Primary DNS  
10.10.10.27

Secondary DNS(Alternative)  
10.10.10.33

MAC ADDRESS  
02:06:01:6C:A3:A2

Apply

**HLS Preview Setting**

HLS Preview  
OFF ▼

Apply

**Device Name Setting**

Device Name

Apply

**Time Setting**

Timezone  
UTC+8 ▼

Type  
Manually ▼

Date  Time

Apply

**Firmware Update**

File Path

Browse

Update

**Account Setup**

Original Account  Original Password

Apply

**System Related**

Restore to Default

System Reboot

#### 3.6.1. NETWORK SETTING

**Network Setting**

DHCP  
 ▼

Static IP

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS

MAC ADDRESS

User can decide disable or enable DHCP mode, when disable DHCP mode, please remember assign all necessary information for SC6C0N1 Mini.

### 3.6.2. HLS PREVIEW SETTING

#### HLS Preview Setting

HLS Preview

OFF

Apply

### 3.6.3. DEVICE NAME SETTING

#### Device Name Setting

Device Name

Apply

Setting device name.

### 3.6.4. TIME SETTING

#### Time Setting

NTP

time.stdtime.gov.tw

Date

2018-02-26

Time

11:52:46

User can update system time in this block.

### 3.6.5. FIRMWARE UPDATE

#### Firmware Update

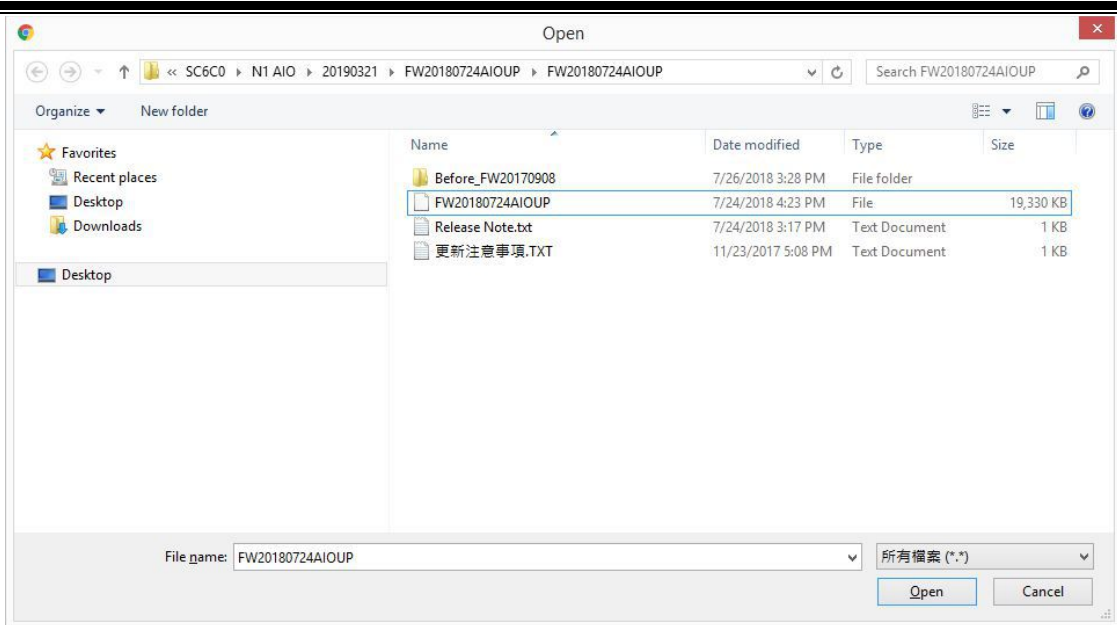
File Path

Browse

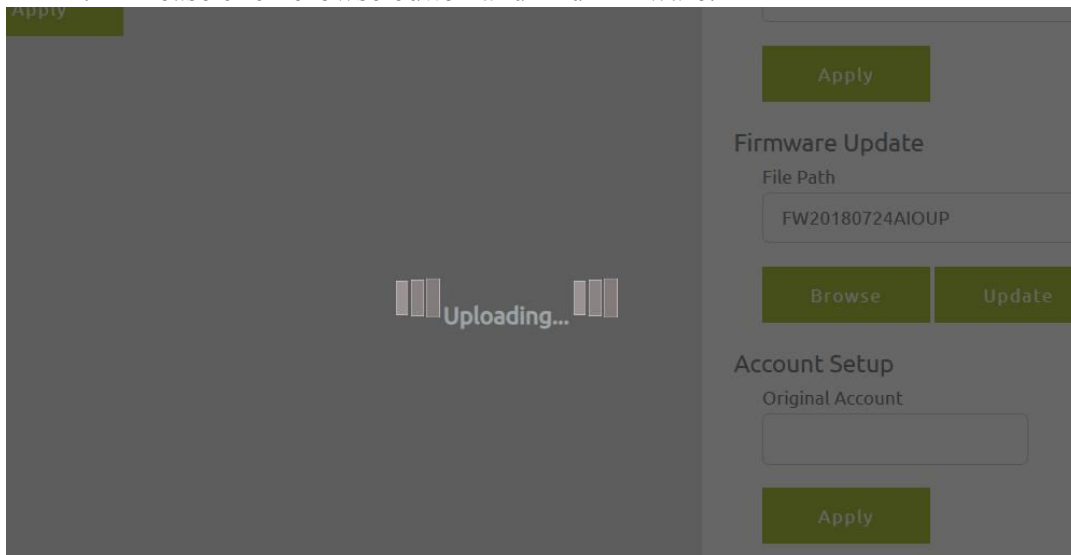
Update

User can update firmware and check firmware version in this block; **please don't turn off system when the firmware update is in the process**

Before start firmware upgrade procedure, please unzip the firmware package and make sure the directory of firmware file. (The file name will be FW201XXXXXXX )



1. Please click browse button and find firmware.



2. After select the firmware, the firmware will automatically upload to SC6C0.

## Firmware Update

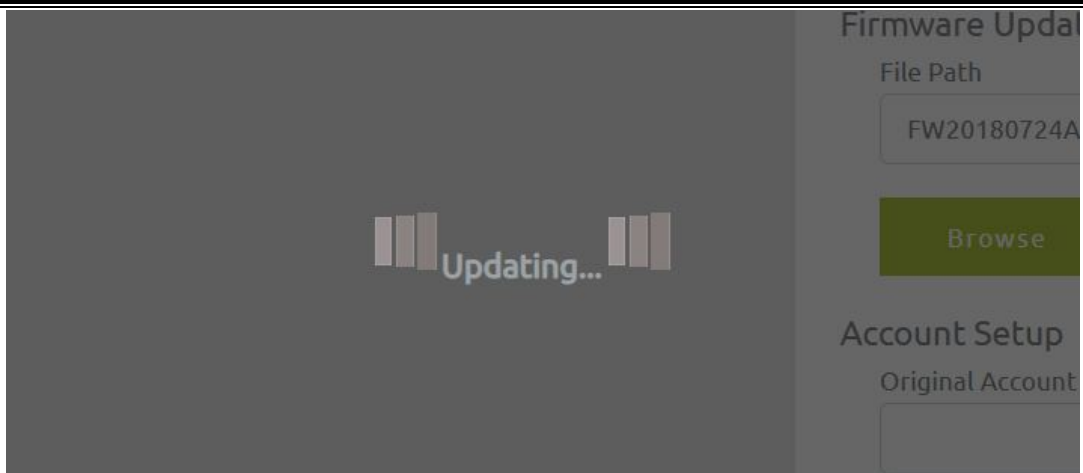
File Path

FW20180724AIOUP

Browse

Update

3. After the upload is complete, the UI will become normal and firmware name appears.



4. Click update and LED will start blinking, after the LED had stop blinking (please ignore the information from web UI), customers now can restart SC6C0.
5. Upgrade firmware had completed.

### 3.6.6. ACCOUNT SETUP

Account Setup

Original Account

Original Password

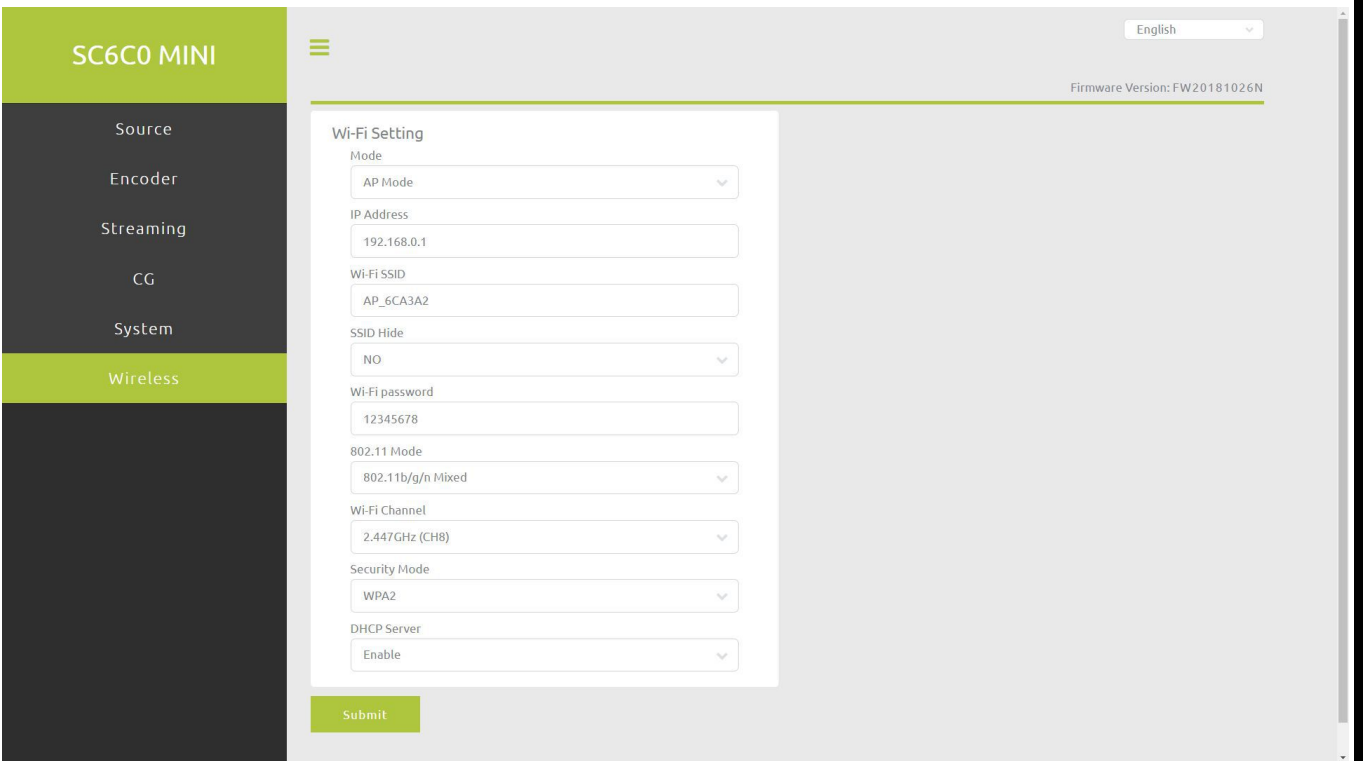
User can create account for usage

### 3.6.7. SYSTEM RELATED

User can restore SC6C0N1 Mini to default by press Restore to Default button, the whole system will return to factory default.

User can reboot SC6C0N1 Mini to default by press Reboot button, the whole system will reboot.

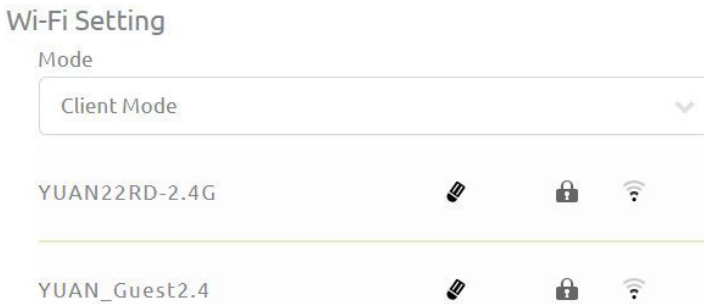
### 3.7. WIRELESS



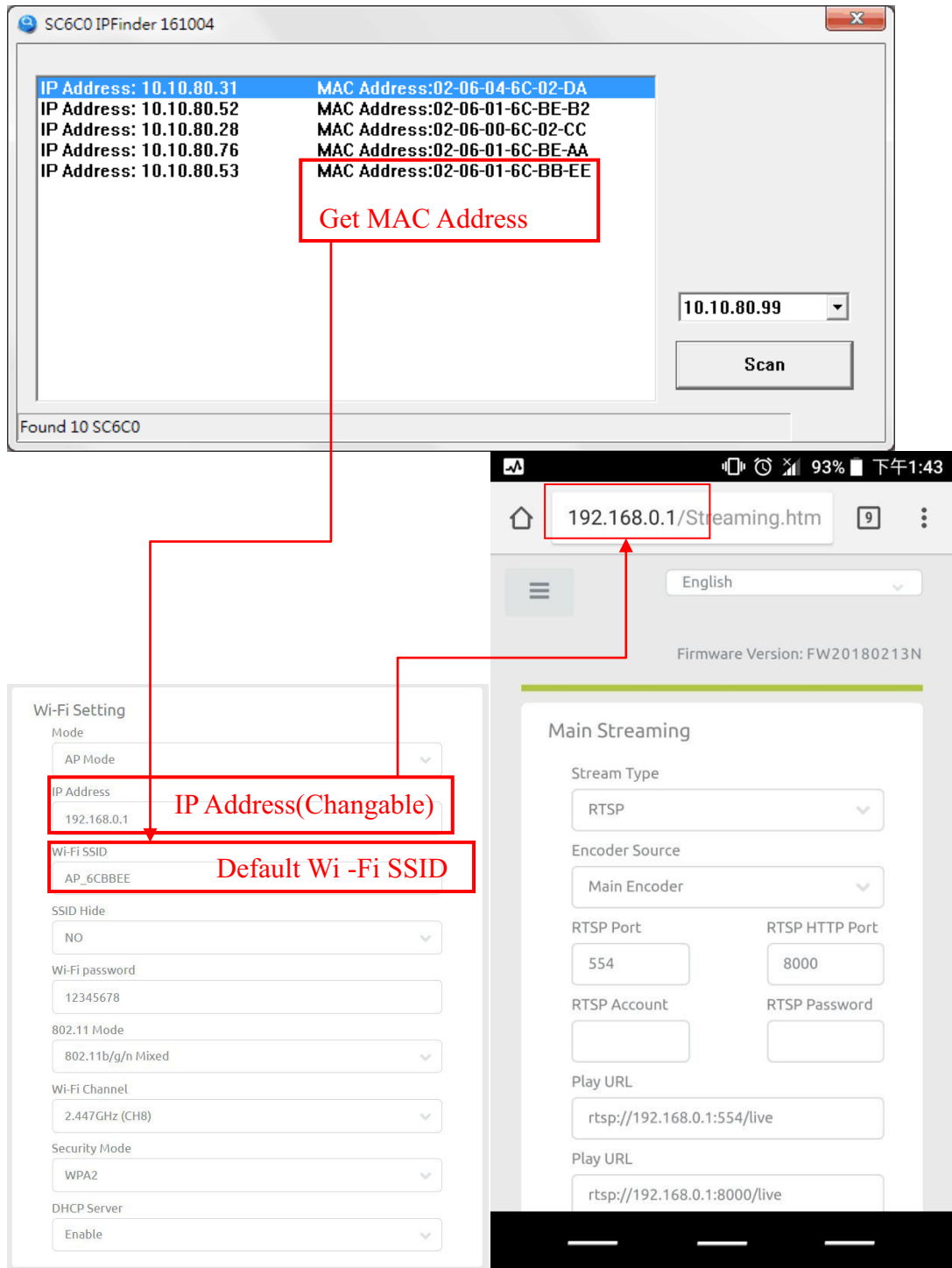
#### 3.7.1. WI-FI SETTING

User can set SC6C0N1 Mini as Client mode or AP mode inside Wi-Fi Settings block; here are the difference between them.

Client mode: When setting as Client mode, SC6C0N1 Mini can connect to other Wi-Fi AP, so user can use their Wi-Fi device ( Example: Cell phone, tablet PC or laptops ) to connect to the same Wi-Fi AP then controls SC6C0N1 Mini.



AP mode: When setting as AP mode, user can use Wi-Fi devices to connect to SC6C0N1 Mini and control directly, such as PDA, smartphones.  
user can turn on wi fi and connect to **SC6C0N1Mini Wi-Fi (SSID)** first (**Default password 12345678****Default SSID is AP\_6C\*\*\*\***, \*\*\*\* is the last 4 numbers of MAC Address User can also get the value under IP Finder. ), then fill **IP address** into browser, and finally user can connect SC6C0N1 Mini with Wi-Fi devices.



**Example** When using cellphone to connect to SC6C0N1 Mini, user will see SC6C0N1 Mini WebUI interface looks like above.

**4. VERSION****4.1. VERSION 1.0**

Initial version.

**4.2. VERSION 1.1**

Update to FW20180213N

**4.3. VERSION 1.2**

Fix typo

**4.4. VERSION 1.3**

Update to FW20180703N

**4.5. VERSION 1.4**

Update to FW20181026N

**4.6. VERSION 1.5**

Add FW upgrade instruction

**4.7. VERSION 1.6**

Update output resolution