

nT19AX02 | SC6C01 M4G

HDMI/SDI/ STREAMING AND RECORD WITH BATTERY BACKUP AND 4G

HDMI[®]
HIGH-DEFINITION MULTIMEDIA INTERFACE



Operation Manual

Index

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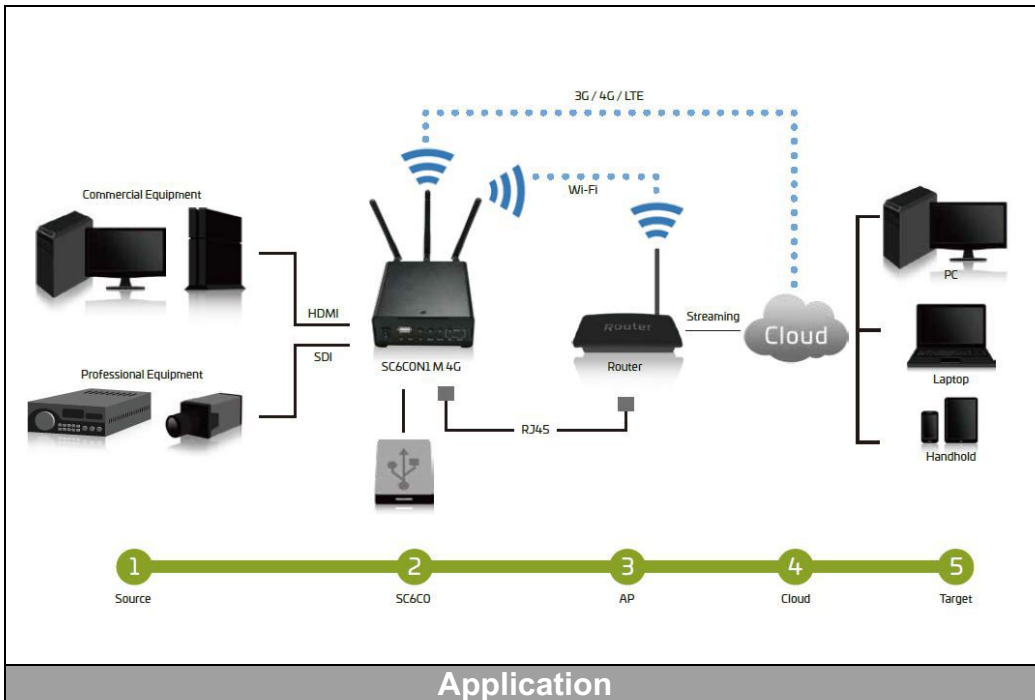
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1. PACKAGE CONTENT

Product Name	Quanties
SC6C0N1 M 4G	1

2. PRODUCT INTRODUCTION

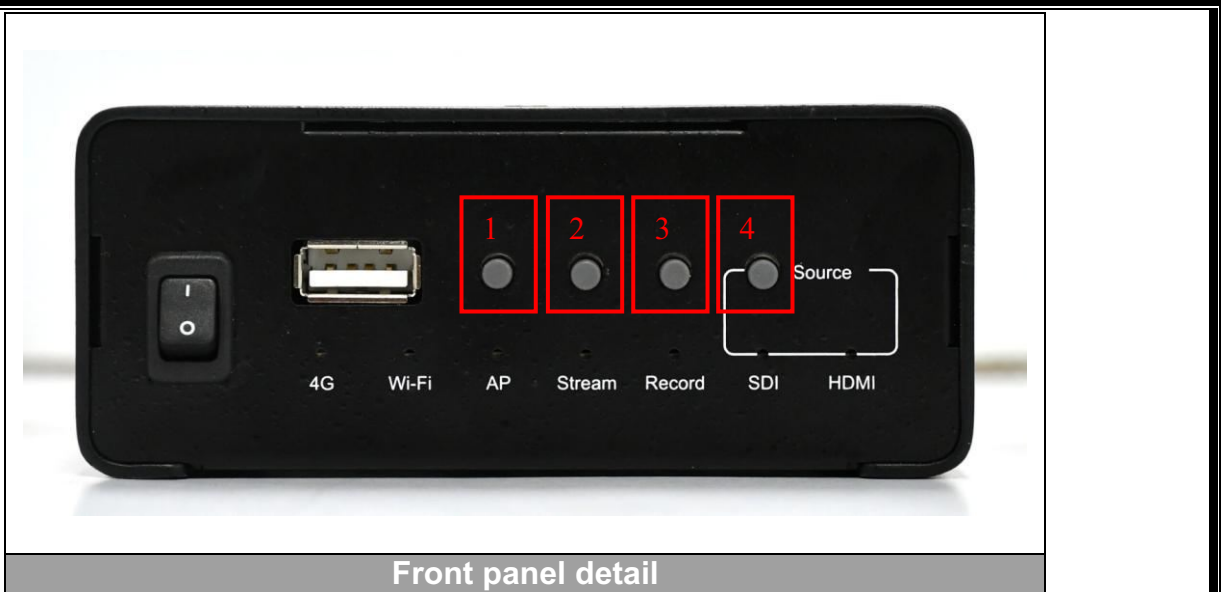
2.1. PRODUCT BRIEF



SC6C0N1 M 4G 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 the left side, there is a mini-sim card slot for 3G/4G/LTE usage, and in the right side is a cradle head hole for user to fixed SC6C0N1 M 4G on camera.



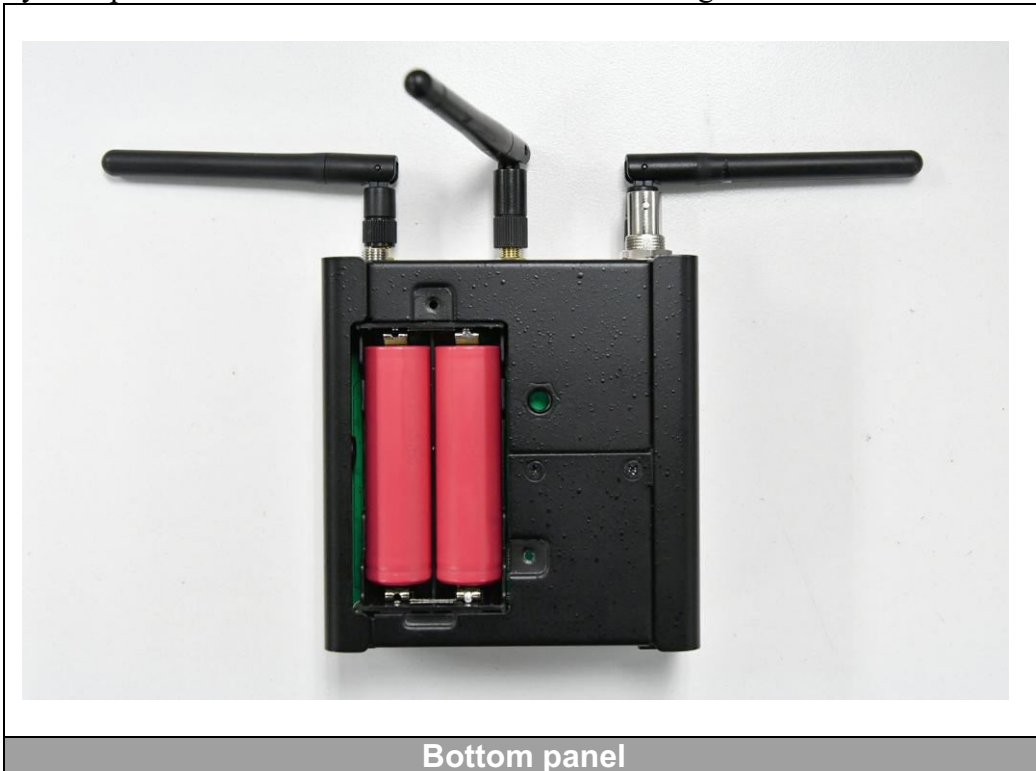
Besides control button, in front panel, SC6C0N1 M 4G provides power switch, USB 2.0. USB 2.0 interface is for user to capture input AV signal. 4 control buttons are using to on/off **AP**, **Stream**, **record** and **select input interface**

In back panel, SC6C0N1 M 4G provides Wi-Fi / 4G / RJ45 for internet connectivity and SDI / HDMI / 3.5mm audio jack for AV signal input. User can also check battery life and re-charge battery in back panel.

The form below is the LED sign and button control method.

1.4G/Wi-Fi/AP Button Switching Loop	
1	AP Mode (AP LED Light up)
2	Client Mode (Wi-Fi LED Light up)
3	AP Mode+4G (AP / 4G LED Light up)
2.Stream Button	
Press to stream, LED meanings are listed as below Green LED: Streaming enable. LED off: Streaming disable. ※ The streaming method will switch between last streaming setting and stop streaming.	
3.Record Button	
Press to record, LED meanings are listed as below Green LED: Recording. Green+Red LED: Closing file. LED off: Not recording. ※ Before recording, please remember to check the willing file name inside WebUI.	
4.Source Button	
Press to select signal, LED meanings are listed as below Green LED: Interface selected and signal locked. Green+Red LED: Interface selected but signal unlock. LED off: Interface not selected	

Stand alone power switch can let user turn off SC6C0N1 M 4G to save battery life. Two 18650 batteries can provide about 3~4 hours of 1080P60 streaming.



In the bottom, there is the battery cover and other cradle head for user to fixed SC6C0N1 M 4G in the other way.

2.2. SPECIFICATION

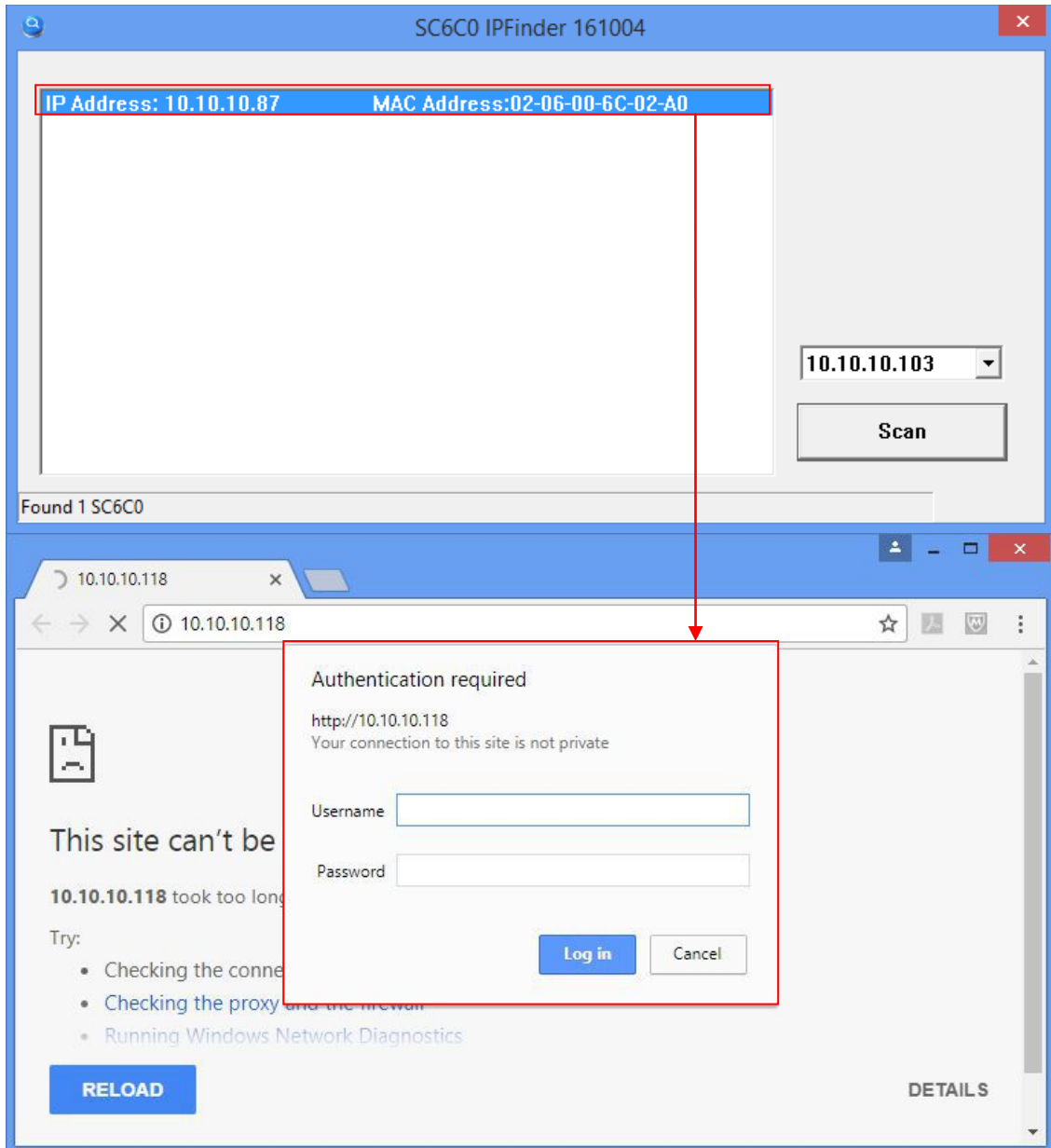
Model	SC6C0N1 M 4G
Max. FPS	60/50fps @ 1920x1080p
Recording Mode	Hardware Compression, Real-Time Mode
4G Support	LTE LTE FDD: Max 150Mbps (DL)/Max 50Mbps (UL) LTE TDD: Max 130Mbps (DL)/Max 35Mbps (UL)
Input Interfaces	Video 1 x HDMI 1 x SDI Audio 1 x 3.5mm stereo analog audio SDI/HDMI embedded audio
Video Feature	H.264/AVC , Baseline / Main / High Profile Configurable bit rate up to 10Mbps Supported Resolutions Input: 1920x1080 (P60/P50/P30/P25/P24/i60/i50) 1280x720 (P60/P50), 1280x1024 (P60),1280x960 (P60) 1024x768 (P60),800x600 (P60), 720x480 (P60/i60) 640x480 (P60), 720x576 (P50/i50) Output: Resize Range from 160x128 to 1920x1080(P60) *Output Include Down Scaling.
Audio Feature	AAC-LC Configurable bit rate range from 32Kbps to 384Kbps Sample rate : 48KHz, 16bit
Network Feature	1x RJ45 for 10/100Mbps Ethernet DHCP client Wifi: 802.11b/g/n Support 150Mbps PHY rate
Support Streaming protocol	TS over TCP/UDP/HTTP (unicast & multicast) RTSP over HTTP/TCP/UDP (RTSP Elementary Stream) RTMP(Publish) HLS
Misc. Features	1x USB 2.0 Host for USB storage Web UI for system configuration Firmware upgradable LED indicator

	Status With Power Recycle 1 x sim card slot(For 3G/4G/LTE usage)
Record Format	MP4
System Requirement	
Power Supply	DC 12V (With DC Adapter) 2 x 18650 Battery slot (3.7V / 2600mAh)
Device Size	102(W)*42(H)*106(D)mm

3. WEB UI

3.1. IP FINDER

In the beginning, user can execute IP Finder to find SC6C0N1 M 4G, please make sure host (PC) and target (SC6C0N1 M 4G) are in the same netmask.



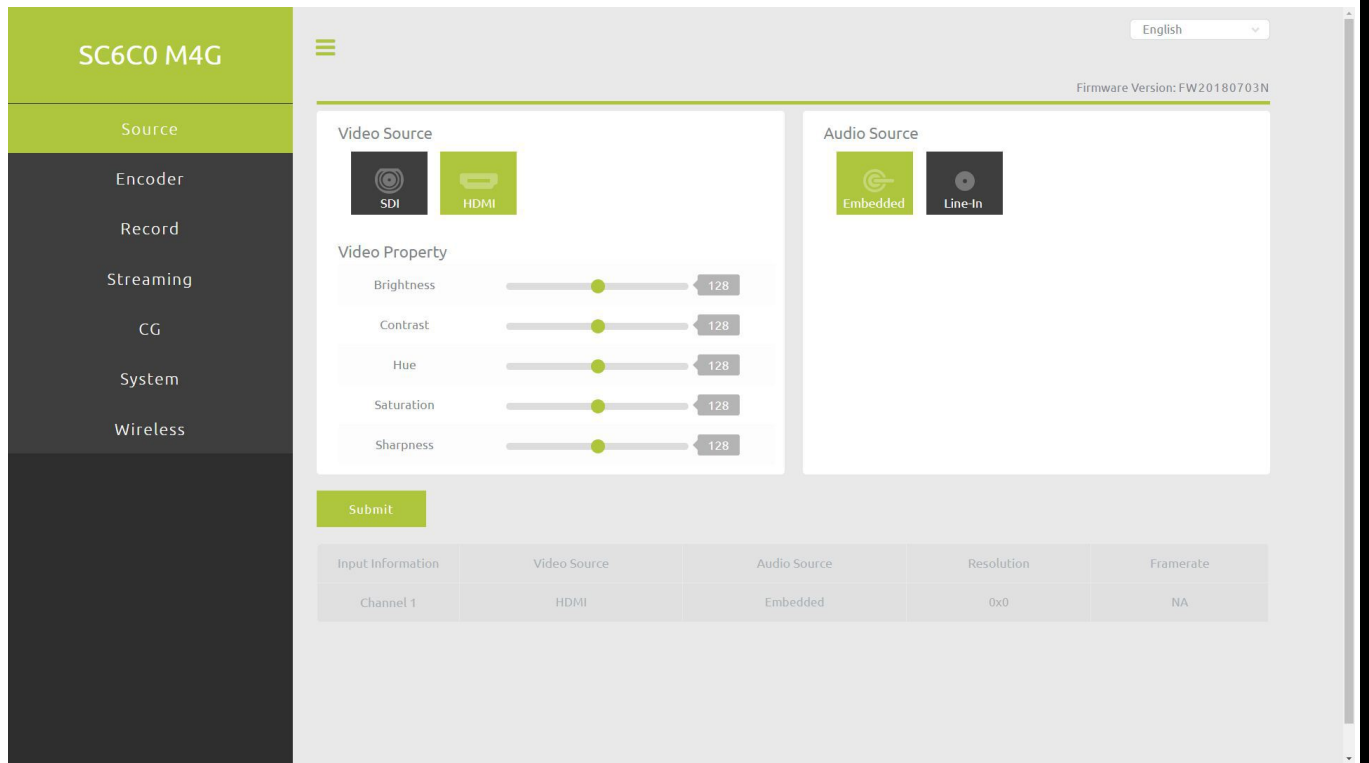
After double click the MAC address (The MAC address is provided in the bottom of SC6C0N1 M 4G), the user will open the web browser automatically, please provide default user name and password to login the SC6C0N1 M4G.

Default user name: **admin**

Default password: **000000**

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

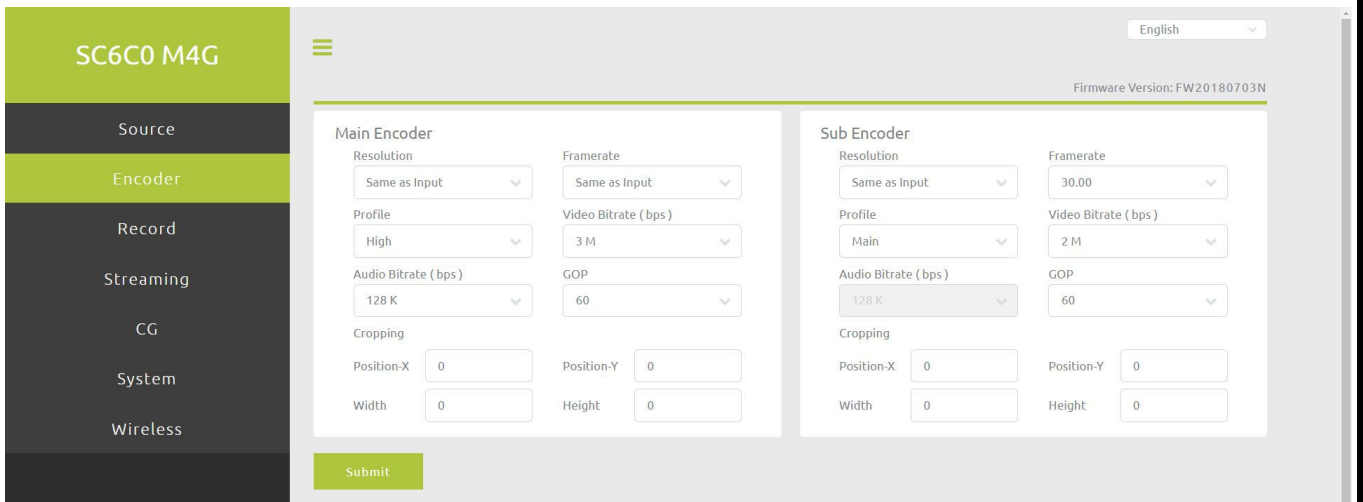
3.2. SOURCE



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 Main High
Video Bitrate (bps)	16M~256K
Audio Bitrate (bps)	384K~32K
GOP	180~1
Position (X, Y, Width, Height)	Depending on screen size

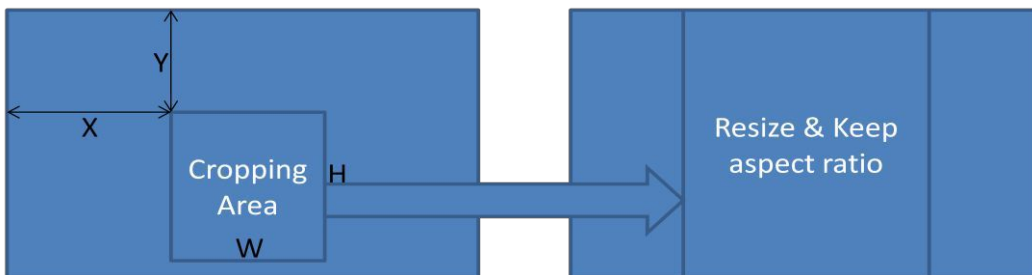
H.264 Encode User can adjust here for H.264 profile selection, it supports high, main and baseline.

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

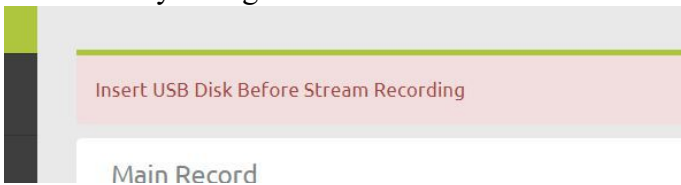
Y&H Range: 128~1080



✘ Please remind, if user had use only main stream, the SC6C0N1 M 4G 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. RECORD

Record page contains storage media that user used, user can check left storage capacity and format newly storage media here.



✘ When the Format USB Disk is not attached, the button will disable; When the USB disk is attached but not formatted, the Format USB Disk button will enable but without information; Only if the USB disk is attached and corrected formatted, the USB disk information and usbstorage information will displayed.

3.4.1. STORAGE CONTENT

Storage Content block contains mounted USB flash disk information, when necessary, the USB flash can be formatted here (Format to FAT32).

Storage Content

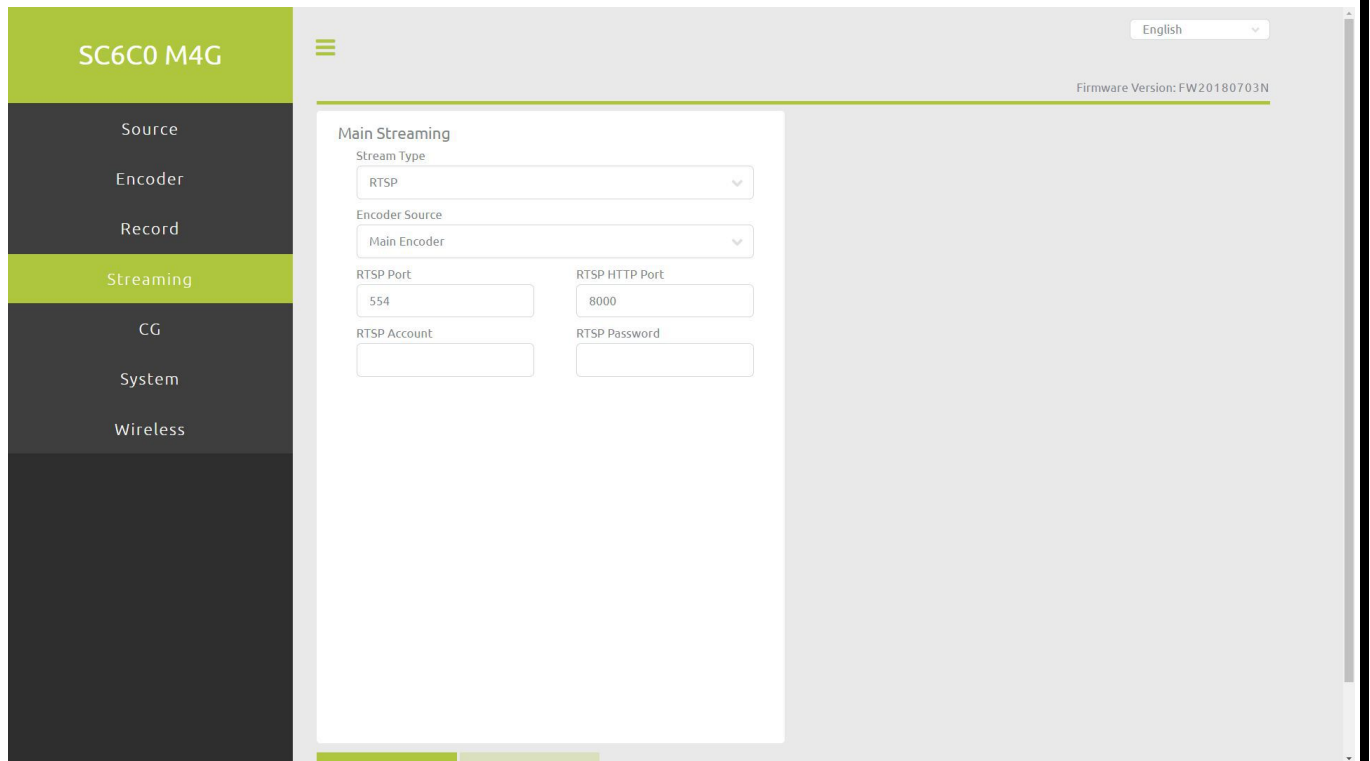
Index of /usbstorage/

Name	Last Modified	Size	Type
Parent Directory/	-	-	Directory
System Volume Information/	2018-Jan-20 03:45:24	-	Directory
ddd_0001.mp4	2018-Jan-30 14:15:08	1.0G	application/octet-stream
ddd_0002.mp4	2018-Jan-30 15:03:42	1.0G	application/octet-stream
ddd_0003.mp4	2018-Jan-30 15:07:58	88.5M	application/octet-stream
update_log	2018-Jan-30 19:46:54	3.1K	application/octet-stream

lighttpd/1.4.34

The index block will display the connected storage here.

3.5. STREAMING

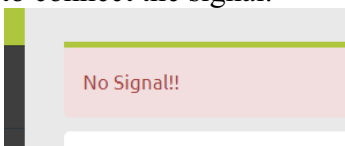


For streaming, here are **RTSP / RTMP/ TS/ HLS / SRT / YouTube / Facebook** streaming methods available.

- RTSP
- RTMP
- TS
- HLS
- SRT
- YouTube
- Facebook

Streaming server function can be only activating when the AV signal is already input to SC6C0N1 M 4G.

When the signal is not connect, SC6C0N1 M 4G will generate an error message to remind user to connect the signal.



3.5.1. EXAMPLE: RTSP

Main Streaming

Stream Type

Encoder Source

RTSP Port: RTSP HTTP Port:

RTSP Account: RTSP Password:

Play URL

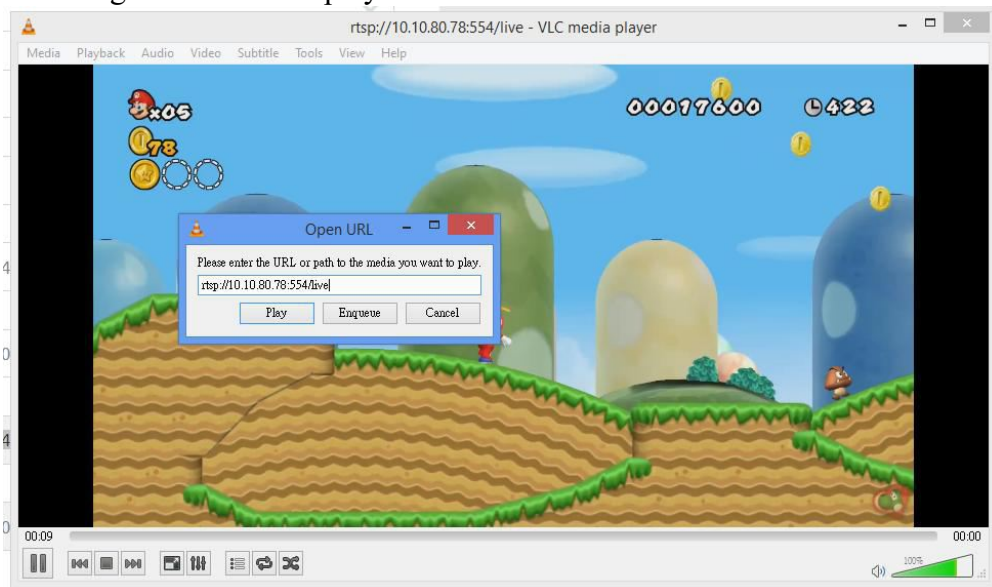
Play URL

Play URL

Play URL

After selecting Stream Type to RTSP, the SC6C0N1 M 4G 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



3.5.2. EXAMPLE: RTMP

RTMP can use for streaming live video to facebook, youtube, and etc.

Please enter youtube live and copy server URL to SC6C0N1 M 4G for SC6C0N1 M 4G 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

Main Streaming

Stream Type
RTMP

Encoder Source
Main Encoder

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

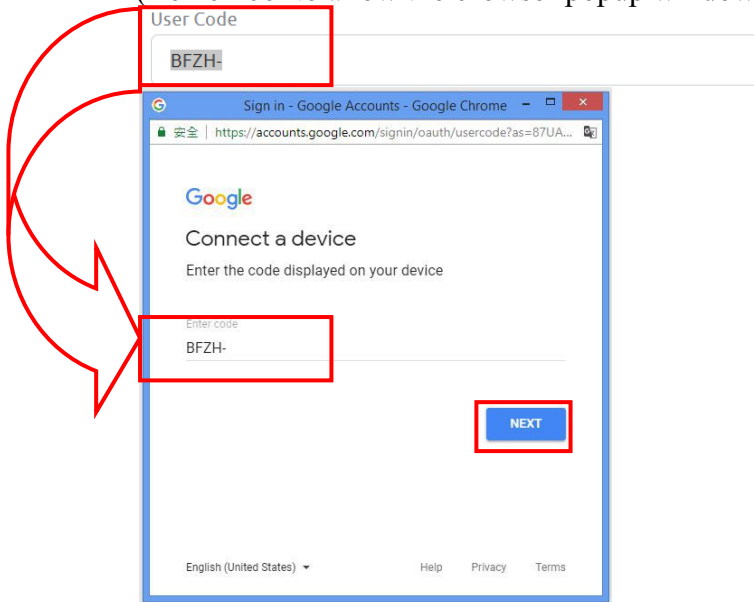
StreamName 1
0pnh-bfc6-

Account 1
Password 1

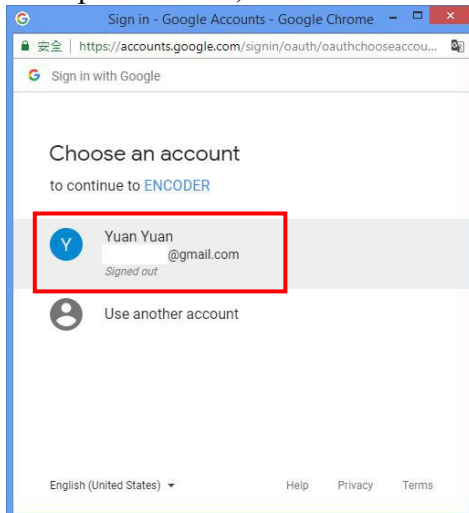
3.5.3. EXAMPLE: YOUTUBE

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

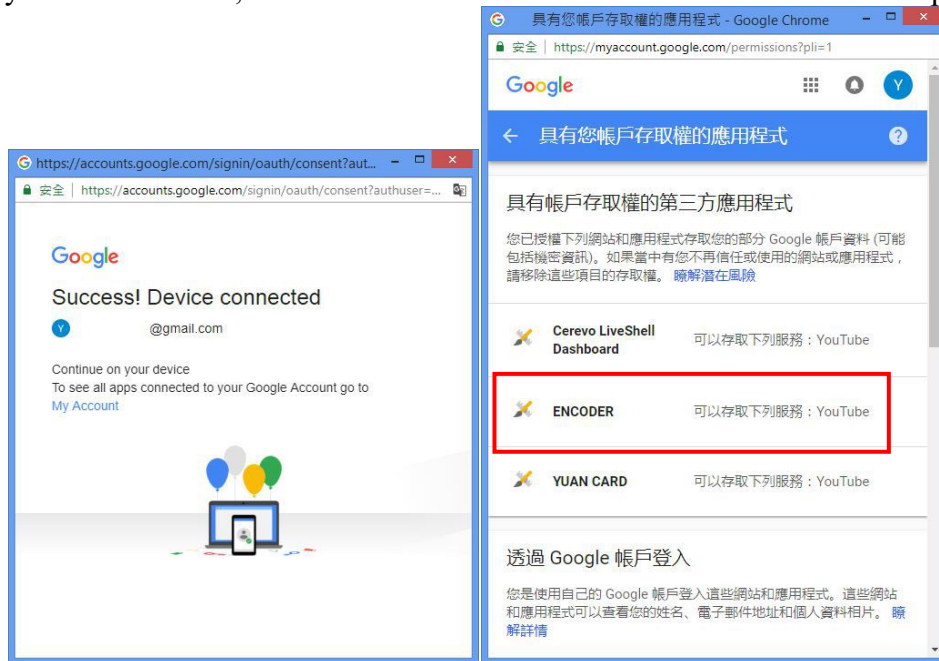
After select **Streaming Type YouTube** and press start streaming, SC6C0 will automatically generate USER CODE for user to connect with YouTube/Facebook account. (Remember to allow the browser popup window for connecting youtube/facebook)



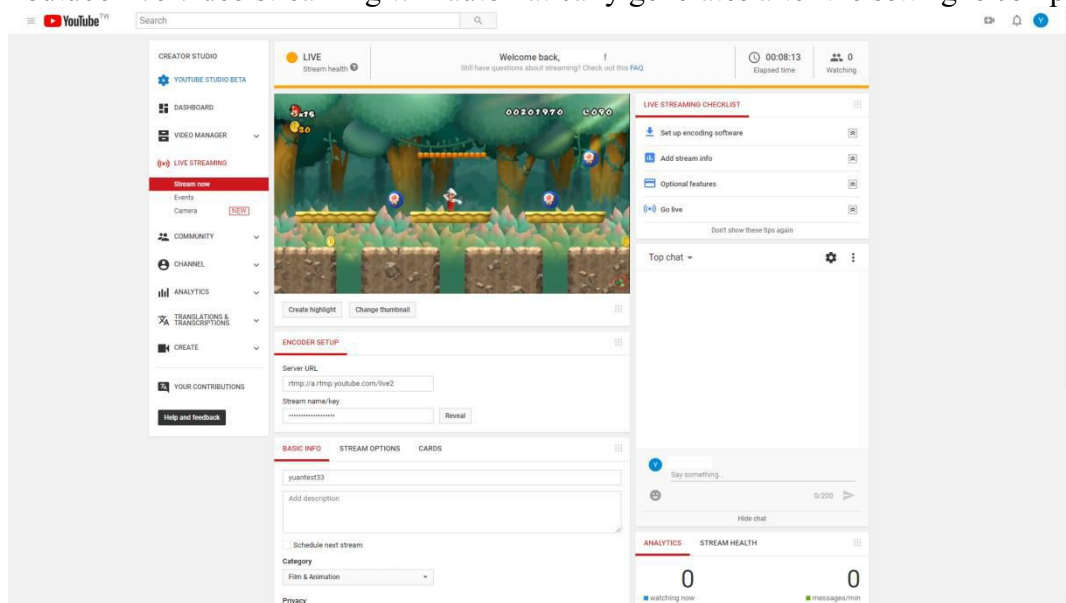
After press NEXT, the connectable user account will appear for user to select.



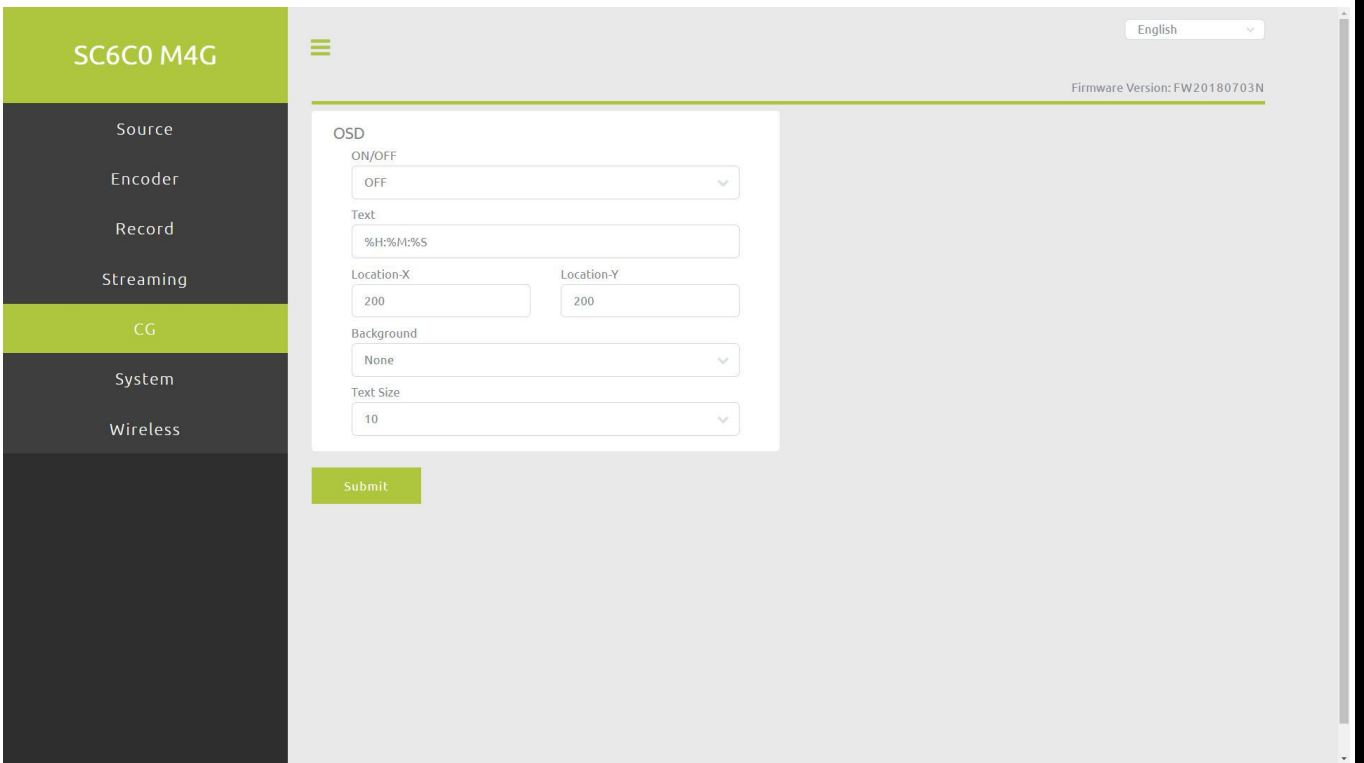
After the account is connected, the video will automatically live streaming to youtube/facebook; User can also check the connected SC6C0 inside the popup window.



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

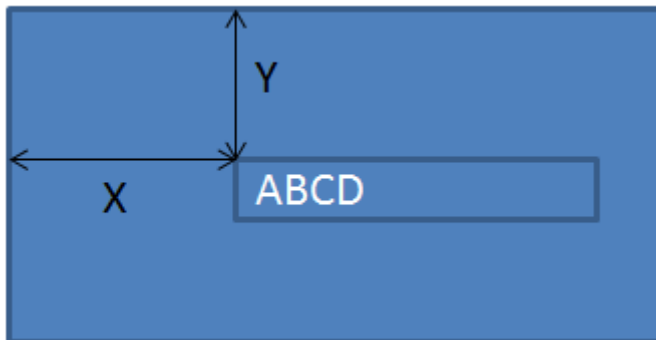


3.6. CG



Here provides user to add OSD to video and streaming.

Location X/Y: Defines the position of the OSD, the schematic diagram is listed as below.



Background: On/Off the background.

Text Size: The OSD text size.

3.7. SYSTEM

3.7.1. NETWORK SETTING

User can decide disable or enable DHCP mode, when disable DHCP mode, please remember assign all necessary information for SC6C0N1 M 4G.

3.7.2. TIME SETTING

Time Setting

NTP

Date

Time

User can update system time in this block.

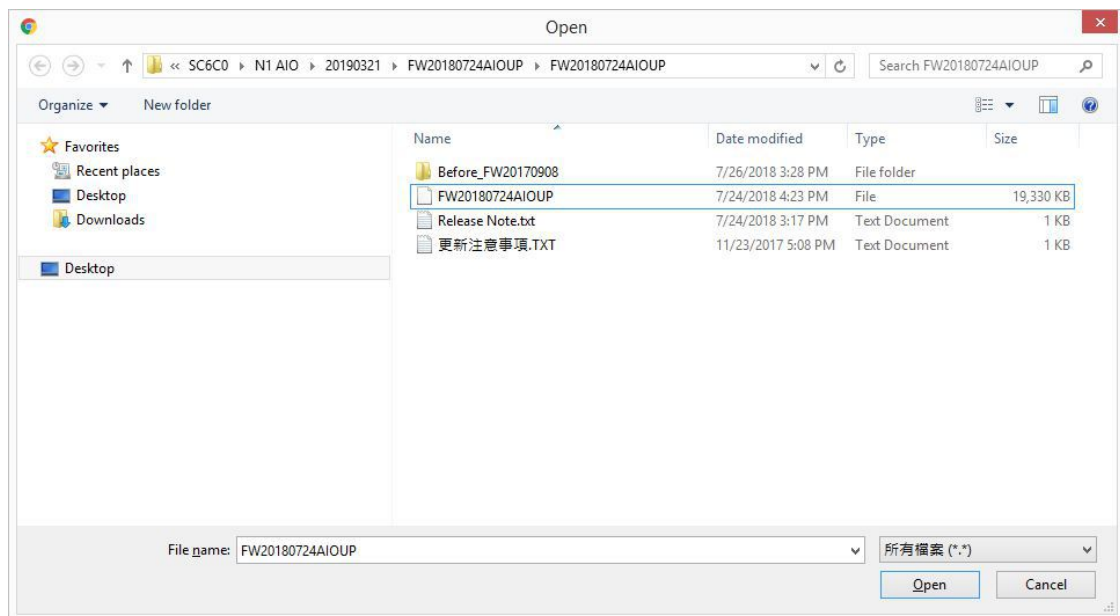
3.7.3. FIRMWARE UPDATE

Firmware Update

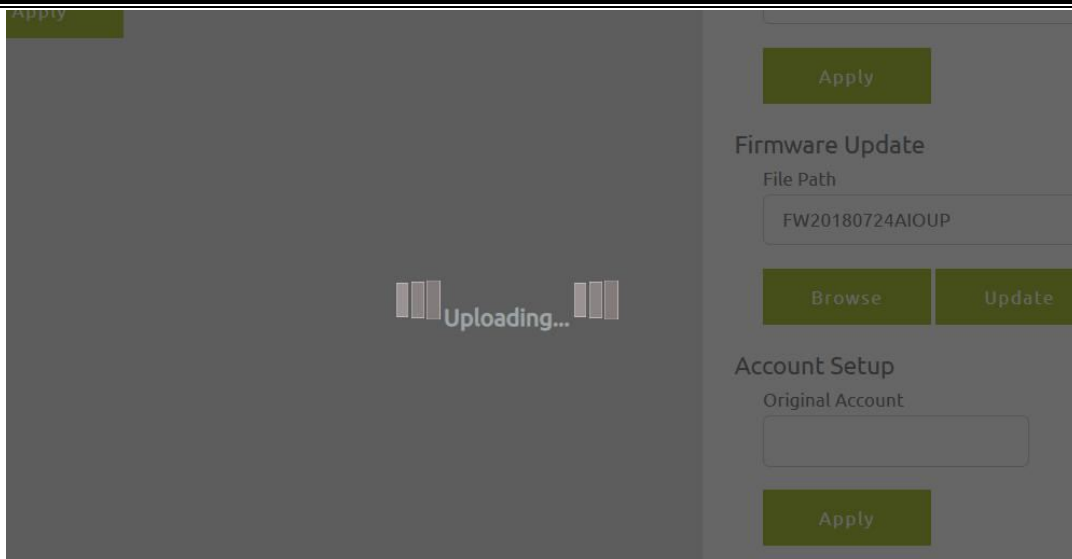
File Path

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.



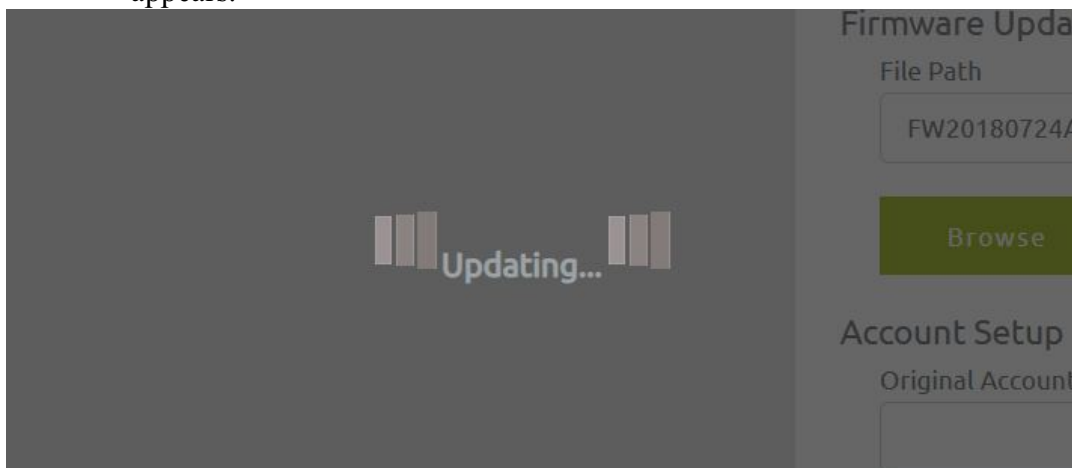
2. After select the firmware, the firmware will automatically upload to SC6C0.

Firmware Update

File Path

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.

3.7.4. ACCOUNT SETUP

Account Setup

Original Account

Original Password

Submit

User can create account for usage

3.7.5. SYSTEM RELATED

Restore to Default

User can restore SC6C0N1 M 4G to default by press Restore to Default button, the whole system will return to factory default.

System Reboot

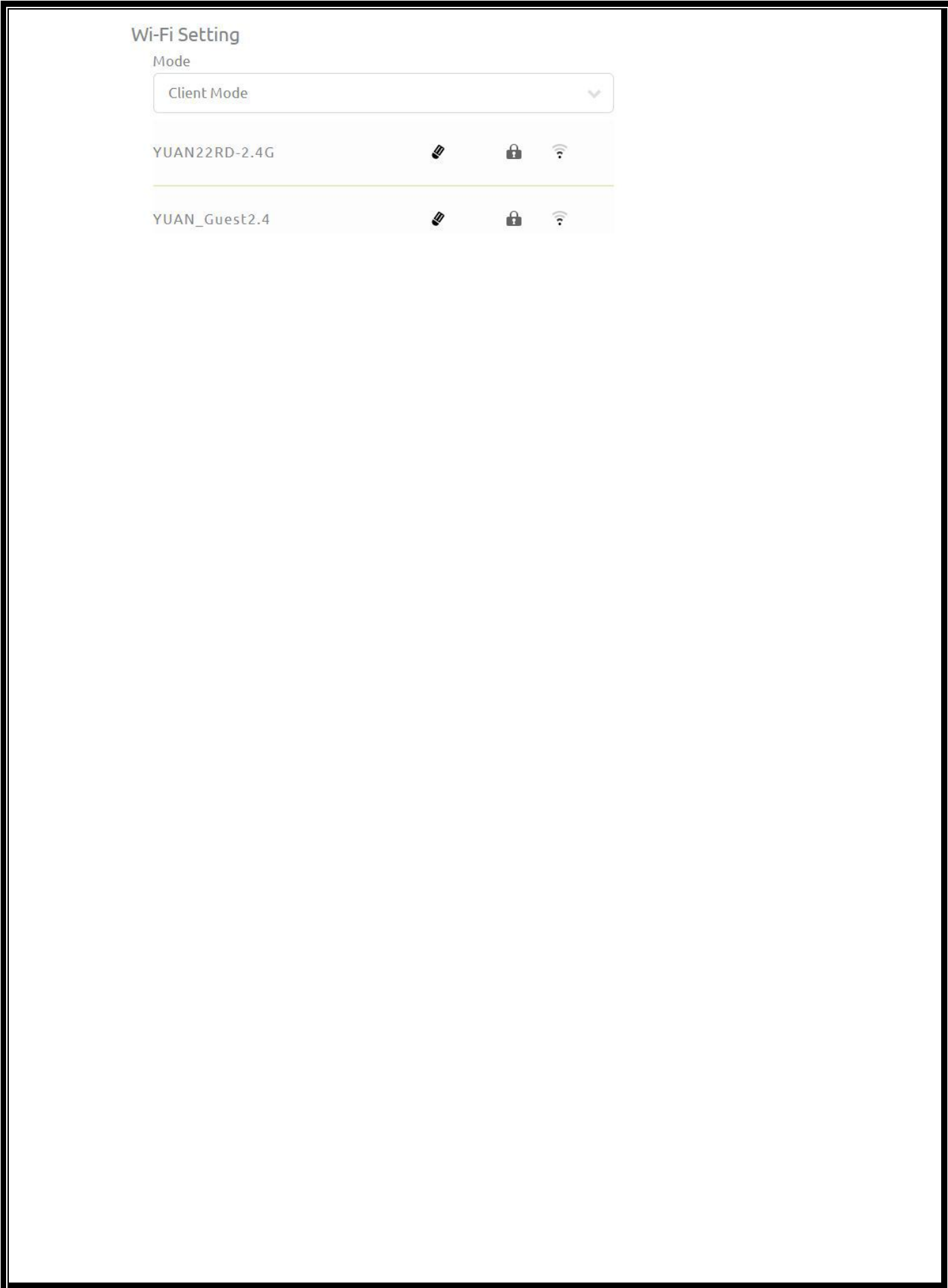
User can reboot SC6C0N1 M 4G to default by press Reboot button, the whole system will reboot.

3.8. WIRELESS

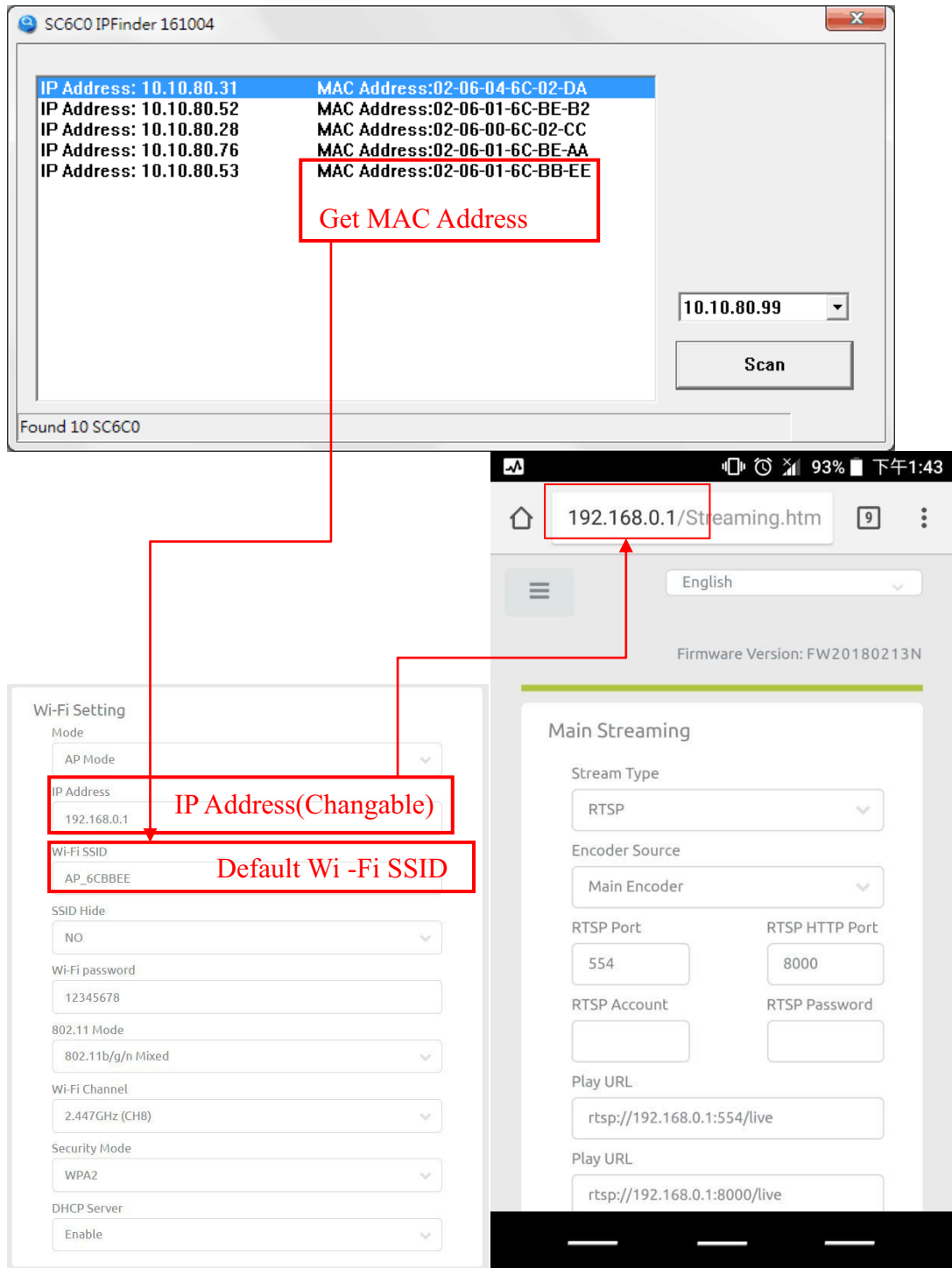
3.8.1. WI-FI SETTING

User can set SC6C0N1 M 4G 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 M 4G 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 M 4G.



AP mode: When setting as AP mode, user can use Wi-Fi devices to connect to SC6C0N1 M 4G and control directly, such as PDA, smartphones.
 user can turn on wi fi and connect to **SC6C0N1M 4G Wi-Fi (SSID)** first (**Default password: 1234567****Default SSID is AP_6C******, **** is the last 4 numbers of **MAC Address**), then fill **IP address** into browser, and finally user can connect SC6C0N1 M 4G with Wi-Fi devices.



Example When using cellphone to connect to SC6C0N1 M 4G, user will see SC6C0N1 M 4G WebUI interface looks like above.

3.8.2. 4G/LTE

4G/LTE

ON/OFF

Service Type

ISP

Signal Quality

SIM Status

APN NAME

APN USER

Pin Code

User can Enable/disable SC6C0 N1 M 4G's 4G/LTE function in 4G/LTE Settings block, when enable 4G/LTE feature, please remember insert miniSIM card before using 4G/LTE feature.

4G/LTE Settings	
APN Name	Please enter APN name, this value generally comes from internet provider. Example: INTERNET
APN USER	Please enter APN Username (Bsaically, this value is unnecessary.)



※ MiniSIM card slot is in left side of SC6C0 N1 M 4G.

4. VERSION**4.1. VERSION 1.0**

Initial version

4.2. VERSION 1.1

Update to FW20180213N

4.3. VERSION 1.3

Fix typo

4.4. VERSION 1.4

Update to FW20180703N

4.5. VERSION 1.5

Fix typo

4.6. VERSION 1.6

Add FW upgrade instruction

4.7. VERSION 1.7

Update output resolution