# H.265 HEVC/H.264 AVC/MPGE4


# FHD Video/Audio Live Encoder



# Manual

**1.Interface**



| | |
|---|---|
| **Power: DC 9-12V 1A** | **ANT: HG WIFI** |
| **HDMI IN: HDMI Video Input Port** | **Power: Power Light(Red)** |
| **Reset:Recovery to Default setting** | **LAN: Lan Status Light(Green)** |
| **LAN: 1000M Ethernet Port** | **Video: Video Signal Light(Blue)** |
| **WIFI:it is AP when it is blink,it is connected it is always bright.** | |

**Instructions：**

A. Power ----9-12 V/DC 1A;

B. Reset----- it is used to reset the equipment; after the equipment is started, press the button for 10 seconds, the equipment IP is recovery to the default IP, 192.168.1.168.

C. Video input --- it is used to input high-definition HDMI

D. LAN ---- 100M or 1000M Ethernet connection.

**2.Specification**

Input

| Video | 1.4 HDMI HDCP |
|---|---|
| HDMI resolution ratio | 1920x1200_60P,1920×1080_50/60P,1920×1080_50/60i, 1280×720_50/60p 720x576i/p 720x480i/p. |
| Encoding | H.265 HEVC or H.264 AVC Profile 4.2 |
| Bitrate | 16kbit/s～32Mbit/s |

| Bitrate control | CBR/VBR |
| --- | --- |
| GOP | Adjustable |

Audio:

| Encoding | AAC AAC+ AAC++ MP3 MP2 AC3 G.711A/U |
| --- | --- |
| Re-Sampling rate | 44100/48000 |
| Bitrate | 48K，64K，96K，128K，160K，192K，256K |
| Sampling precision | 24 bit |
| Bitrate | 64Kb/s~384Kb/s |

System:

| Network | 100M/1000M Base-T Ethernet /WIFI 2.4G |
| --- | --- |
| Stream | UTP,HTTP,FLV,HLS,RTSP,RTMP RTP UDP(Multicast,Unicast) and ONVIF |
| Configuration interface | WEB operation interface or CGI Command |
| Updating | Software update |

General

| Size | 89*103*29mm |
| --- | --- |
| Net Weight | 0.3KG |
| Temperature range | -20~55℃(workable) |
| Power supply | 9-12V/1A or 5V/2A |
| Power consumption | 5W |

## 3. System Setting ：
## 3.1 Reset
there is a RST hole on the front panel which is used to conduct initialization reset for

the high-definition encoder. When the equipment is powered on, press the button and hold for 12 Seconds, when the power light is off, release the button, and all the parameters will be initialized. The initialized IP is 192.168.1.168.

## 3.2 Computer IP Address Setting

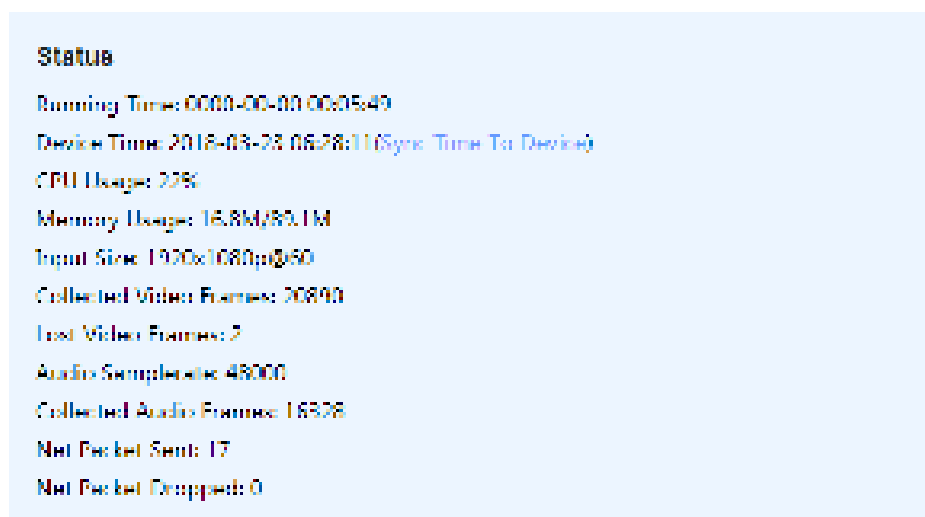Computer IP can be set as 192.168.1.*. Note: anyone from 1－254, except for 168

## 3.3 Open IE Explorer

Fill *http://192.168.1.168* to address bar, Default user name: *admin* Pass: *admin*
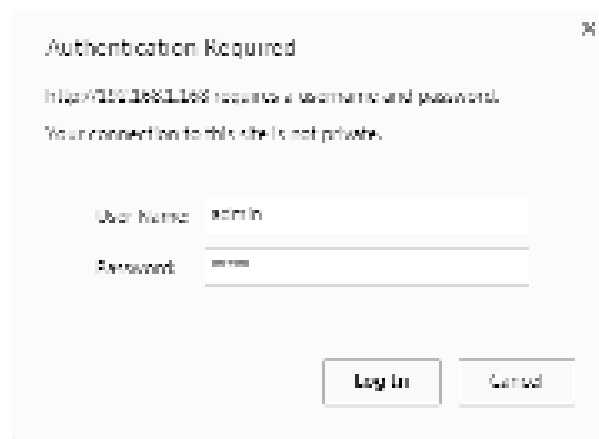


## 3.4 Status Display

**3.4.1 status**: when there is video input, it will display resolution of the input, and if there is not status info,input is not correct, please check your video source or video cable.



**3.4.2 main stream** : it shows main Stream Encoding Type,Resolution,Bitrate and access address

**Main Stream**

Encoding Type: H.264

Encoded Size: 1920x1080@30

Bitrate(kbit): 2800

TS URL: http://192.168.1.168/0.ts

HLS URL: http://192.168.1.168/0.m3u8

FLV URL: http://192.168.1.168/0.flv

RTSP URL:rtsp://192.168.1.168/0

RTMP URL: Disable

RTMP PUSH URL(Not Connected): rtmp://192.168.1.50/live/0

Multicast URL: udp://@238.0.0.1:1234

Preview----->Click

**3.4.3 Sub stream**: it shows Sub-Stream Encode Type ,Resolution Bitrate and access address

**Substream1**

Encoding Type: H.264

Encoded Size: 1280x720@30

Bitrate(kbit): 1800

TS URL: http://192.168.1.168/1.ts

HLS URL: http://192.168.1.168/1.m3u8

FLV URL: http://192.168.1.168/1.flv

RTSP URL: rtsp://192.168.1.168/1

RTMP URL: rtmp://192.168.1.168/live/1

RTMP PUSH URL: Disable

Multicast URL: Disable

Preview----->Click

**3.3.4 Preview:**

a.Click *Preview* ,it will play stream in browser

**Main Stream**

Encoding Type: H.264

Encoded Size: 1920x1080@30

Bitrate(kbit): 2800

TS URL: http://192.168.1.168/0.ts

HLS URL: http://192.168.1.168/0.m3u8

FLV URL: http://192.168.1.168/0.flv

RTSP URL:rtsp://192.168.1.168/0

RTMP URL: Disable

RTMP PUSH URL (Not Connected): rtmp://192.168.1.50/live/0

Multicast URL: udp://@238.0.0.1:1234

Preview----->Click

b.open VLC software to play stream
  default http stream address:*http://192.168.1.168/0.ts*
  default rtsp stream address:*rtsp://192.168.1.168/0*



## 4. Network Setting
### 4.1 Ethernet Port

**Network**

**LAN**

DHCP: Disable ▼
IP: 192.168.1.168
Netmask: 255.255.255.0
Gateway: 192.168.1.1
MAC: 00:12:14:01:3A:4D

**DNS**

DNS1: 0.0.0.0
DNS2: 8.8.4.4

**NTP**

NTP Enable: Disable ▼
NTP Server: tmc.windows.com
Time Zone: UTC+8 ▼

**Port**

HTTP Port: 8080          [1-65500]
RTSP Port: 8554          [1-65500]

[Apply]

Instructions: in terms of IP address of the equipment, the factory default is 192.168.1.168. If you forget the IP address after modification, you can reset the equipment by pressing the rest button for 12 seconds when the equipment is powered on, and restore the factory default ip.

**4.2 WIFI/AP SETTING**

**4.2.1 AP Mode**

AP（Access Point）mode is default wireless status.

Default AP name is AP_Encoder_XXXX,you can sercah hotspot on smartphone or laptop.Default pass is 12345678.

Wifi band supports 2.4G/5.8G

Wifi channel: if wireless transmit is jam,you can try to swtich channel



You also can check ap information on status page.

**4.2.2 WIFI Mode**



Select WIFI mode,you can click Refresh to scan hotspot after reboot

Fill correct hotspot name and pass and wifi ip.Click Apply botton,reboot

You will check the connection information on status page.

**WIFI Status**

WIFI: COMPLETED

WIFI SSID: HUAWEI 040M0N_5G

WIFI IP: 192.168.0.168

WIFI MAC: 7C:A7:B0:35:5C:1C

WIFI Level: 71%

WIFI Freq: 5.745 GHz

WIFI Max Bit Rate: 270 Mb/s
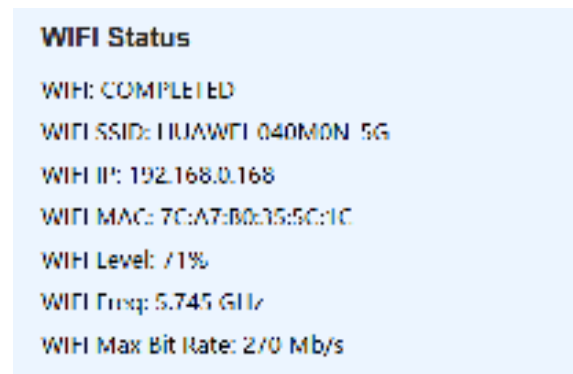
If the wifi level is under 60%,please check environment,it is better to visual range away from router.

## 5. Main Stream Encoding Setting

### 5.1Encoding Setting of Main Stream

**Main stream**

| | |
|---|---|
| Encoding Type: | H.264 ▼ |
| FPS: | 30 [5-60] |
| GOP: | 30 [5-300] |
| Bitrate(kbit): | 2000 [32-32000] |
| Encoded Size: | same as the input ▼ |
| H.264 Level: | baseline profile ▼ |
| Bitrate Control: | cbr ▼ |

| | | |
|---|---|---|
| TS URL: | 0.ts | Enable ▼ |
| HLS URL: | 0.m3u8 | Disable ▼ |
| FLV URL: | 0.flv | Enable ▼ |
| RTSP URL: | 0 | Enable ▼ |
| RTMP URL: | 0 | Disable ▼ |
| RTMP/RTSP PUSH URL: | rtmp://192.168.1.50/live/0 | Disable ▼ |
| Multicast IP: | 230.0.0.1 | Disable ▼ |
| Multicast Port: | 1234 | [1-65535] |

**Apply**

5.1.1 Encoding Type: H.264 or H.265 or Mjpeg

5.1.2 Encode level: baseline profile / main profile / high profile

5.1.3 Encoding frame rate: 5-60 frames （it can output 60p When Input is 60p)

5.1.4 Bitrate control: VBR(quality priority) and CBR(bandwidth Priority)

5.1.5 GOP: 30

5.1.6 Encoding size: 1920x1080, 1680x1050,1280x720, 1024x576,850x480,720x576, 720x540,720x480,720x404,704x576,640x480,640x360,608x488,

544x480,480x480,480x384,480x360,480x320,480x272,480x720,400x320
,400x224,352x480,352x228,320x256,320x240,320x180,240x180,176x
144
5.1.7 Video bit rate: 16-32000K


## 5.2 Main Stream Protocal Setting

UTP protocol(Private) ,Default address ***http://192.168.1.168/0.utp***
HTTP protocol,Default address ***http://192.168.1.168/0.ts***
HLS protocol,Default address ***http://192.168.1.168/0.m3u8***
FLV protocol,Default address ***http://192.168.1.168/0.flv***
RTSP protocol,Default address ***rtsp://192.168.1.168/0***
RTMP pull stream address:
 Default address ***rtmp://192.168.1.168/live/0***
 default port :1935
RTMP push stream address:
 ***rtmp://ip:port/xxx/xxx***
 or
 ***rtmp://user:pass@ip:port/xxx/xxx***
 RTMP default port: 1935
Multicast protocol,Default address ***UDP://@238.0.0.1:1234***
Unicast protocol,Default address: ***UDP://@192.168.1.50:1234*** (Note:192.168.1.50
is received device)


## 5.3 OSD Setting

5.3.1 Zone 1-4,you can enable max to 4 image or txt

Text, support English/number Character

Image, support 24bit BMP file ,less than 500KB,transparency color is R:241 G:241 B:241

5.3.2 X coordinate: the left and right positions displayed by 0-1920 text.

Y coordinate: the up and down positions displayed by 0-1080 text.

5.3.3 font: the size of 8-72 text display in the display screen.

5.3.4 Alpha: 0-128 , transparency
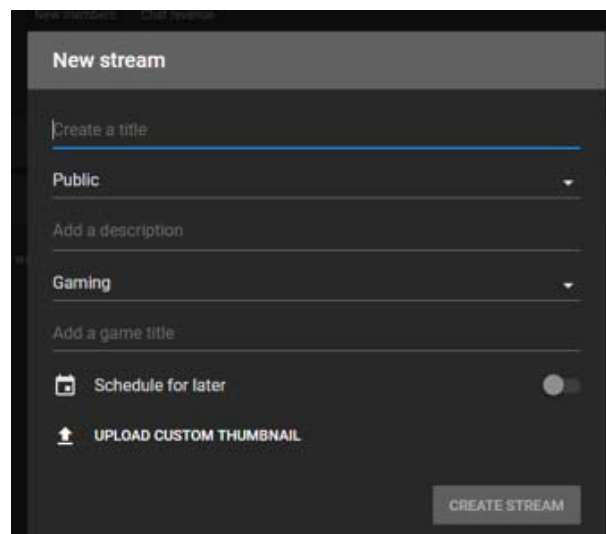
5.3.5 Logo: select logo files

## 5.4 Sub Stream Encoding Setting

**Note: the setting method is as same as that of main stream**

## 6. Instructions for Youtube Streaming

1.Open live streaming page on Youtube

2.Create a live stream channel



3.Copy rtmp address from Youtube
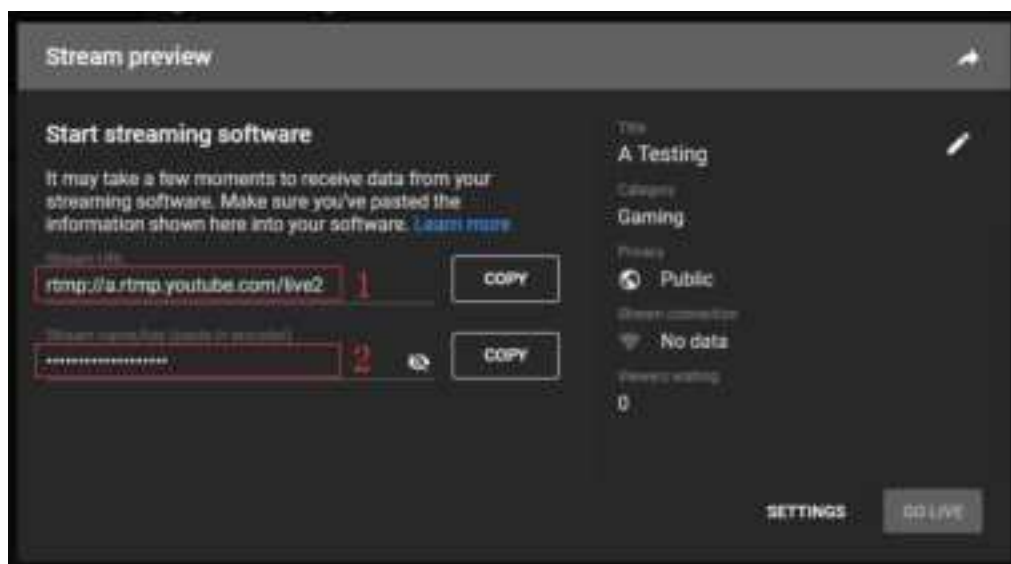


The whole address(part 1+part 2) is
***rtmp://a.rtmp.youtube.com/live2/87gg-dtd0-7atc-8zwu***
4.Paste whole rtmp address into encoder

| TS URL: | XI.ts | Enable ▼ |
| HLS URL: | XI.m3u8 | Disable ▼ |
| FLV URL: | XI.flv | Enable ▼ |
| RTSP URL: | XI | Enable ▼ |
| RTMP URL: | XI | Disable ▼ |
| RTMP/RTSP PUSH URL: | rtmp://a.rtmp.youtube.com/live2/87gg-d8f6-7ek | Enable ▼ |
| Multicast IP: | 239.0.0.1 | Disable ▼ |
| Multicast Port: | 1234 | [1-65535] |

**Apply**

Paste whole rtmp address

Enable it

Click Apply botton

## 7. Instructions for Facebook Streaming

1.Open live streaming page on Youtube
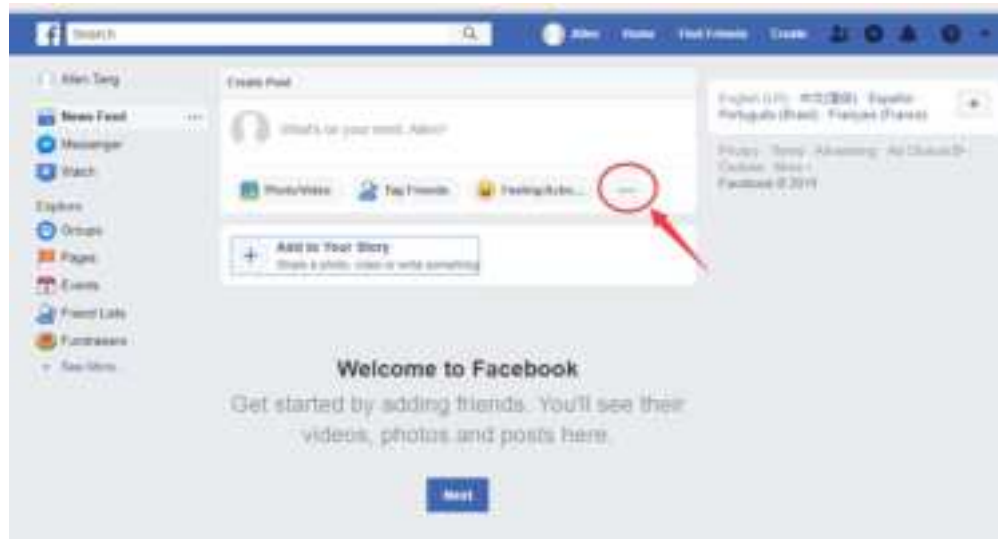
2. Copy rtmp address from Facebook
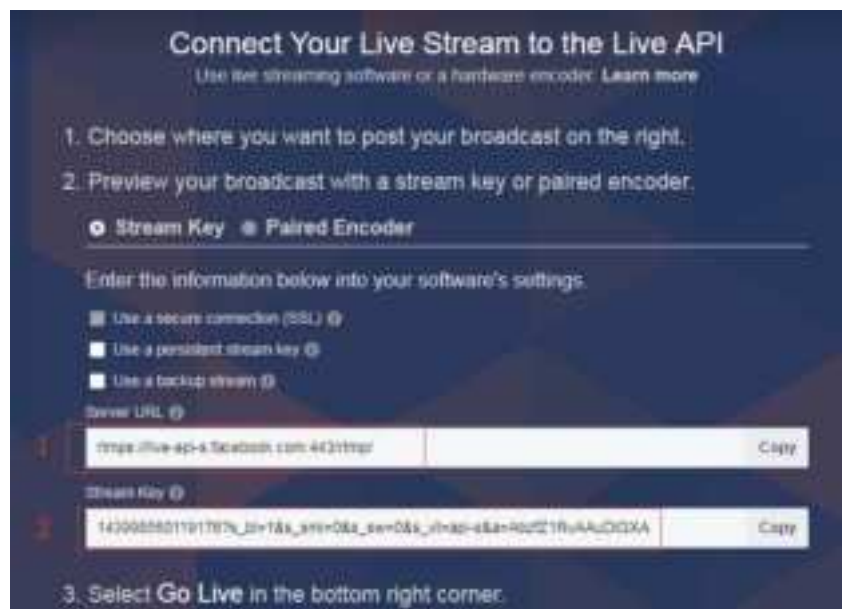


The whole address(part 1+part 2) is
***rtmps://live-api-s.facebook.com:443/rtmp/143998560119176?s_bi=1&…….DIGXA***

Paste whole rtmp address

Enable it

Click Apply botton

## 8. Audio Encoding Settings



Audio Bit rate: 48K, 64K, 96K, 128K, 160K, 192K and 256K

Audio type: AAC,AAC+,MP3, MP2,AC3,G711A,G711U

Audio resample: 44100,48000

## 9. System Settings

9.1 User name and password change

9.2 Software upgrade



9.3 System settings：Device reset and initialization default settings

This device complies with part 15 of the FCC Rules. Operation is subject
to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device
must accept any interference received, including interference that may cause
undesired operation.
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to
which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.
Any Changes or modifications not expressly approved by the party responsible
for compliance could void the user's authority to operate the equipment.
Note: This equipment has been tested and found to comply with the limits for a
Class B digital device, pursuant to part 15 of the FCC Rules. These limits are
designed to provide reasonable protection against harmful interference in a
residential installation. This equipment generates uses and can radiate radio
frequency energy and, if not installed and used in accordance with the instructions,
may cause harmful interference to radio communications. However, there is no
guarantee that interference will not occur in a particular installation. If this equipment
does cause harmful interference to radio or television reception, which can be
determined by turning the equipment off and on, the user is encouraged to try to
correct the interference by one or more of the following measures:
This equipment complies with FCC radiation exposure limits set forth for an
uncontrolled environment.
This equipment should be installed and operated with minimum distance 20cm
etween the radiator & your body.