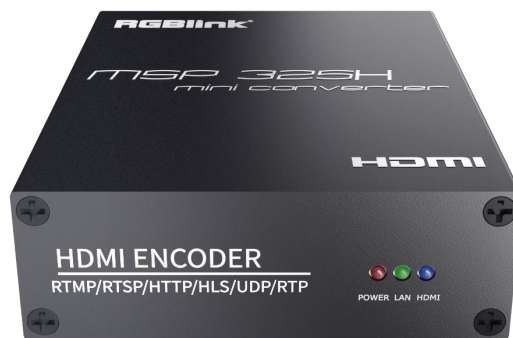
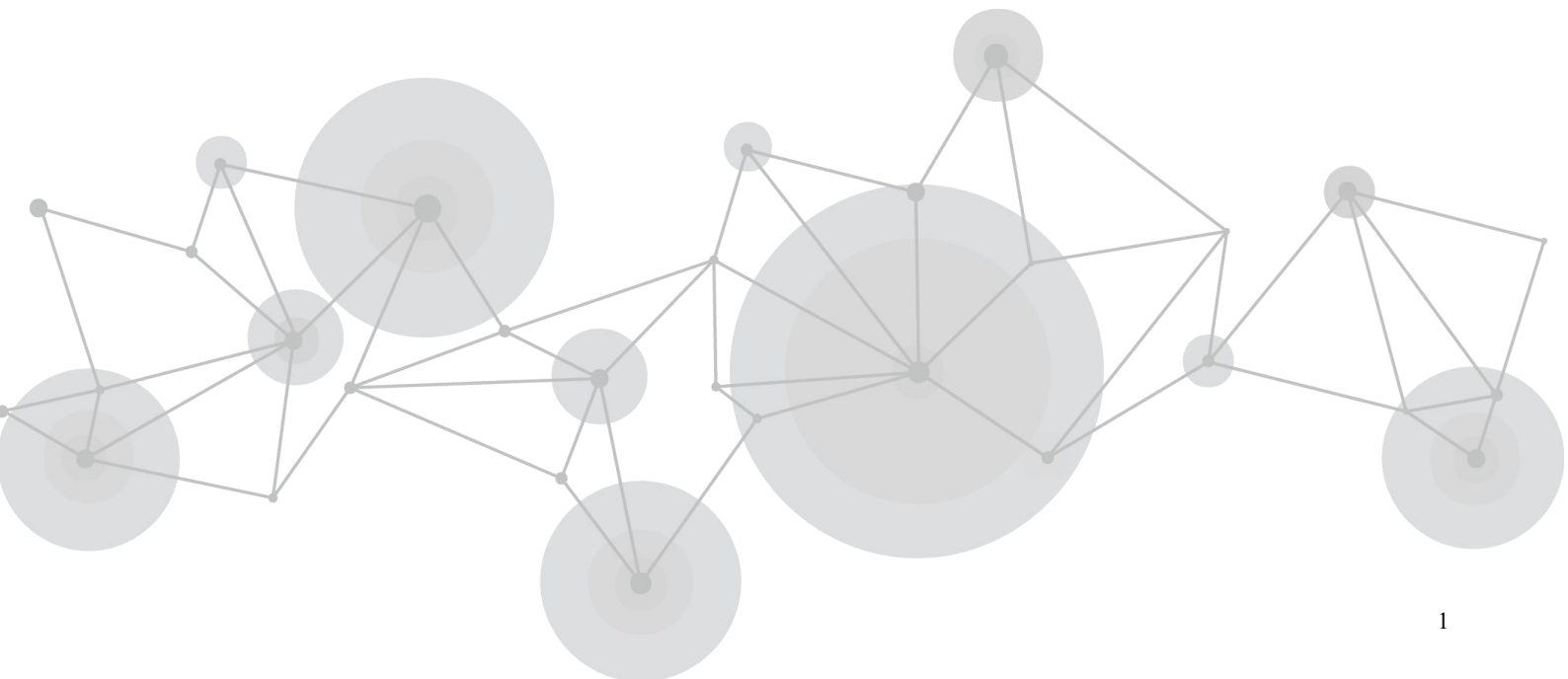


MSP 325H



Quick Start



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USER YOUR PRODUCT

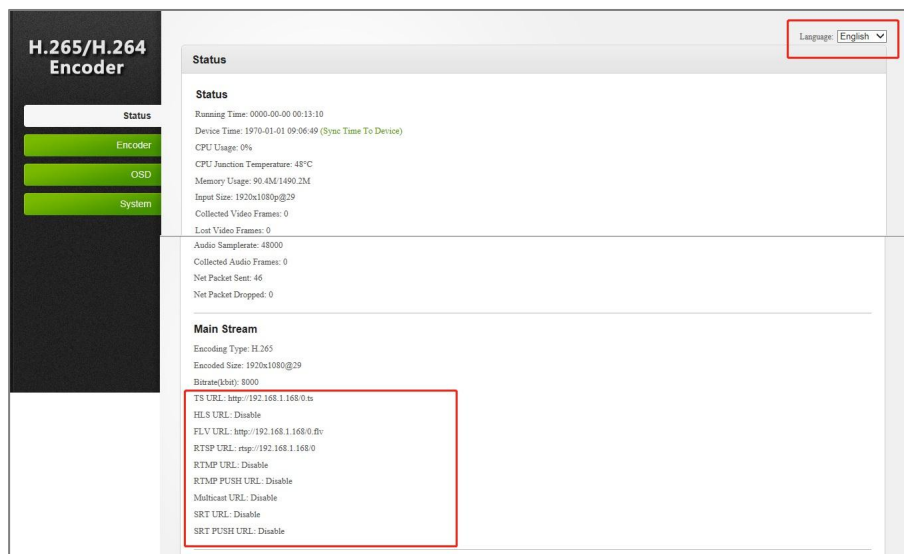
1. Environment Configuration

1.1 Log in Web UI

Type in 192.168.1.168 to the search bar of your internet browser and open up the online admin interface. There will pop up and a window asking for user name (admin) and password (admin).

1.2 Check Status

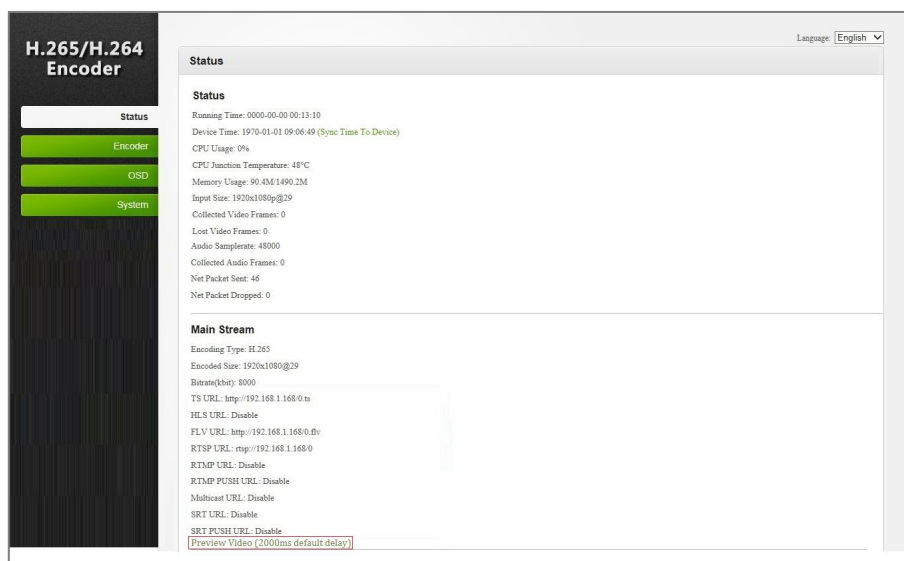
Change the language of WEB UI to English if needed. Check the main stream address as in the red frame.



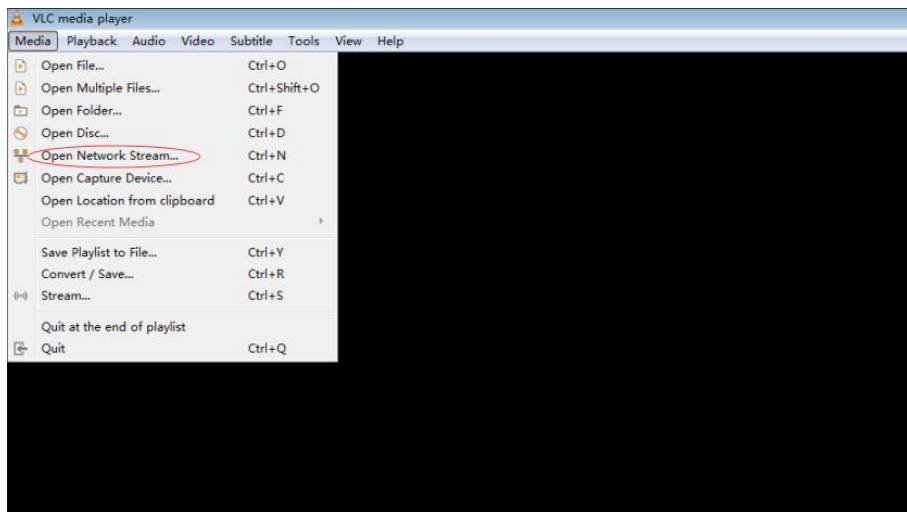
1.3 Preview Video

Input signal can be previewed either on WEB UI or on VLC Player

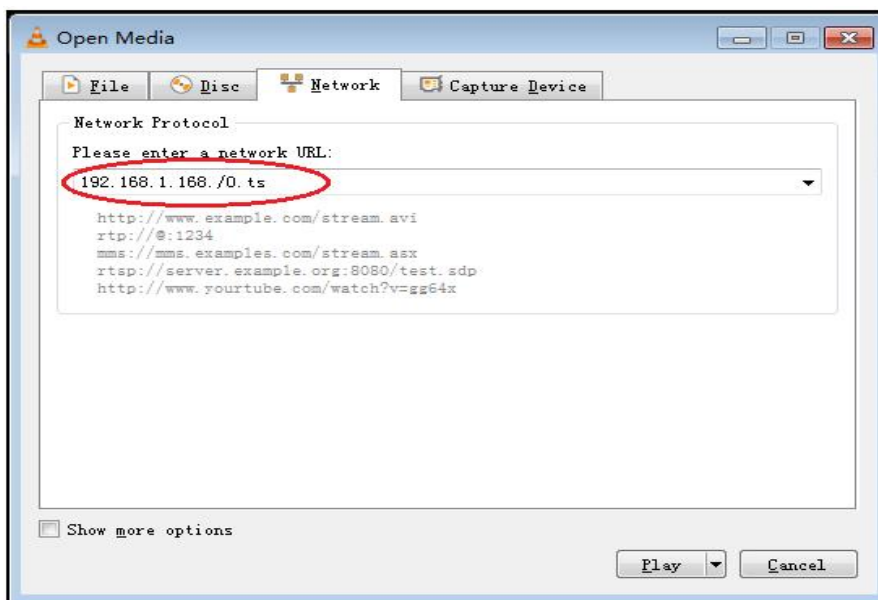
Check 【Status】 - 【Main Stream】 - 【Preview Video】



Or play video on VLC Media Player. When there are valid input signal captured, open up VLC Player(download: <http://www.videolan.org/>),choose **【media】** →Open Network Stream.



Type in the TS URLfrom Main Stream



2. Encoder Setting

2.1 Main Stream

Click **【Encoder】** → **【Main Stream】** →Type in each parameter's value→click Apply

Explanation of Some Parameters:

FPS:Frame Per Second, numbers of picture output each second

GOP:gap of key frame, how many pictures between each two key frame

Bitrate:numbers of bits processed in each second.

Here is an usual bitrate setting table.

Item	Calculation Formula	192×144	320×240	480×360	640×480	1280×720	1920×1080
EX Low	$W \times H \times 3/4$	30kb/s	60kb/s	120kb/s	250kb/s	500kb/s	1mbps
Low	$W \times H \times 3/2$	60kb/s	120kb/s	250kb/s	500kb/s	1mbps	2mbps
Medium	$W \times H \times 3$	120kb/s	250kb/s	500kb/s	1mbps	2mbps	4mbps
High	$W \times H \times 3 \times 2$	250kb/s	500kb/s	1mbps	2mbps	4mbps	8mbps
EX High	$W \times H \times 3 \times 4$	500kb/s	1mbps	2mbps	4mbps	8mbps	16mbps

Bitrate Control

CBR stands for constant **bitrate**. During **CBR** encoding, the **bitrate** or the number of **bits per** second is kept the same throughout the encoding process.

VBR stands for variable **bit rate** VBR changes the bitrate according to the image content

2.2 Audio Setting

Click **【Encoder】** → **【Audio】** → Type in each parameter's value → click Apply

H.265/H.264 Encoder

Status

Encoder

Main stream

Substream1

Substream2

Substream3

Audio

Advanced

OSD

System

Audio

Audio Input: HDMI

Sampling Rate: 44100

Encoder: AAC

Audio Channel: L+R

Bitrate: 128000 [48000~320000]

Digital Volume Gain: 0 [-50~50]

G711A Over PTE: Enable

ONVIF Audio

G711A Over RTSP: Disable

G711: G711A

Apply

2.3 Advanced

Click 【Encoder】 → 【Advanced】 → Type in each parameter's value → click Apply

H.265/H.264 Encoder

Status

Encoder

Main stream

Substream1

Substream2

Substream3

Video

Audio

Advanced

OSD

System

Advanced

Video Only: Disable

Audio Only: Disable

Record File Splitter Time 30 [5-300] (min):

Hls Splitter Time(s): 10 [3-20]

Hls Number: 5 [3-20]

Deinterlaced: Bottom Only

TS Muxer: Compatible with FFmpeg

Net Drop Threshold: 5000 [50-50000]

TS Once Pack: 7 [3-128]

ts_transport_stream_id: 101 [1-65535]

ts_pmt_start_pid: 480 [16-7936]

ts_start_pid: 481 [32-3840]

ts_tables_version: 6 [0-31]

ts_service_name: Live

ts_service_provider: Encoder

TS Empty Packet: No Insert

TS/RTSP Password Enable: Disable

Vmix Compatible: Disable

TS Over RTSP: ES

Multicast Type: UDP

Slice Split Enable: Disable

Slice Size: 1024 [128-65535]

MIN_QP: 5 [1-35]

MAX_QP: 38 (MIN_QP-50)

UDP TTL: 64 [1-254]

Apply

3. OSD

3.1 OSD Streaming Setting

Click **【OSD】** → **【Main Stream】** → Type in each parameter's value → click Apply

The screenshot shows the 'H.265/H.264 Encoder' web interface. On the left sidebar, the 'OSD' menu is selected, and 'Main stream' is highlighted. The main content area is titled 'Main stream' and contains the following settings:

- Alpha:** 100 [0-128]
- Zone 1:**
 - Zone:** Enable
 - Type:** txt
 - X:** 10 [0-1920]
 - Y:** 10 [0-1080]
 - Text:** [empty field]
 - Font Size:** 36 [8-72]
 - Background Color:** white
 - Color:** [black swatch] select color
- Zone 2:**
 - Zone:** Disable
- Zone 3:**
 - Zone:** Disable
- Zone 4:**
 - Zone:** Disable

An 'Apply' button is located at the bottom right of the settings area.

3.2 LOGO Upload

Click **【LOGO Upload】** → select desired LOGO pic from local → click Upload

The screenshot shows the 'H.265/H.264 Encoder' web interface with the 'LOGO Upload' menu selected in the sidebar. The main content area is titled 'LOGO Upload' and contains the following elements:

- LOGO:** [empty field] 浏览...
- Instructions:** Please upload PNG or 24-bit BMP(0xF1F1F1 is transparent) pictures less than 500 kByte, the file name is logo1.bmp/logo2.bmp/logo3.bmp/logo4.bmp, or logo1.png/logo2.png/logo3.png/logo4.png
- Upload** button

4. System

4.1 Network

Click **【System】** → **【Network】** → Type in parameters → click Apply

The screenshot shows the 'Network' configuration page. On the left is a sidebar with a menu: Status, Encoder, OSD, System (highlighted), Network (highlighted), Password, Serial to TCP, Upgrade, Reset, Reboot, and Schedule Restart. The main content area is divided into sections: LAN, DNS, NTP, and Port. The LAN section has fields for DHCP (a dropdown menu set to 'Disable'), IP (192.168.1.168), Netmask (255.255.255.0), Gateway (192.168.1.1), and MAC (00:13:14:01:A5:71). The DNS section has fields for DNS1 (8.8.8.8) and DNS2 (192.168.1.1). The NTP section has fields for NTP Enable (a dropdown menu set to 'Disable'), NTP Server (time.windows.com), and Time Zone (UTC+8). The Port section has fields for HTTP Port (8086) and RTSP Port (8554), both with a range indicator [1-65500]. An 'Apply' button is at the bottom right of the form.

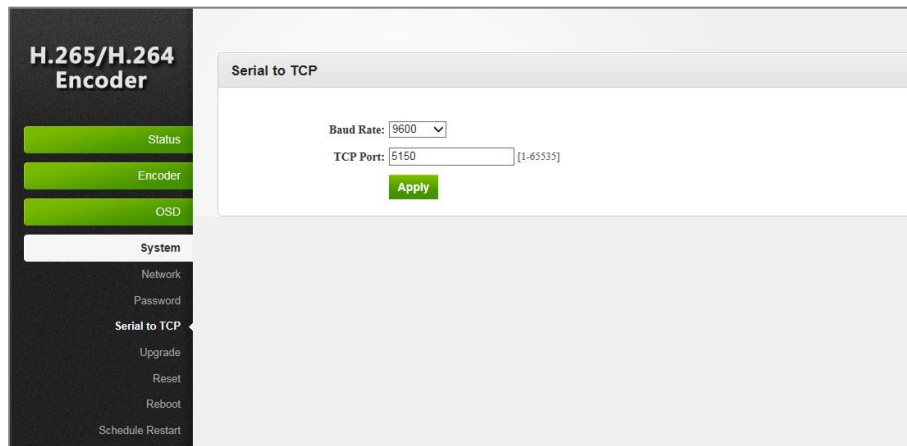
4.2 Password

Click **【System】** → **【Password】** → type in password → click Apply

The screenshot shows the 'Password' configuration page. The sidebar is identical to the previous screenshot, with 'System' and 'Password' highlighted. The main content area has a title 'Password' and three input fields: 'Old password:', 'New password:', and 'Confirm new password:'. An 'Apply' button is located below the input fields.

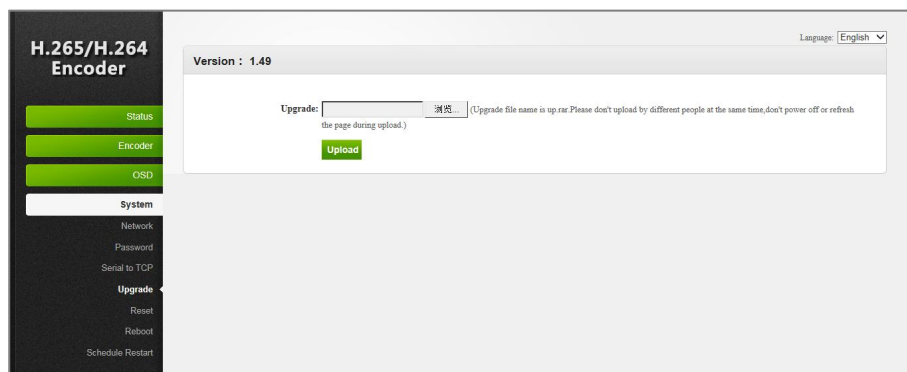
4.3 Serial to TCP

Click **【System】** → **【Serial to TCP】** → choose Baud Rate and TCP Port → click Apply



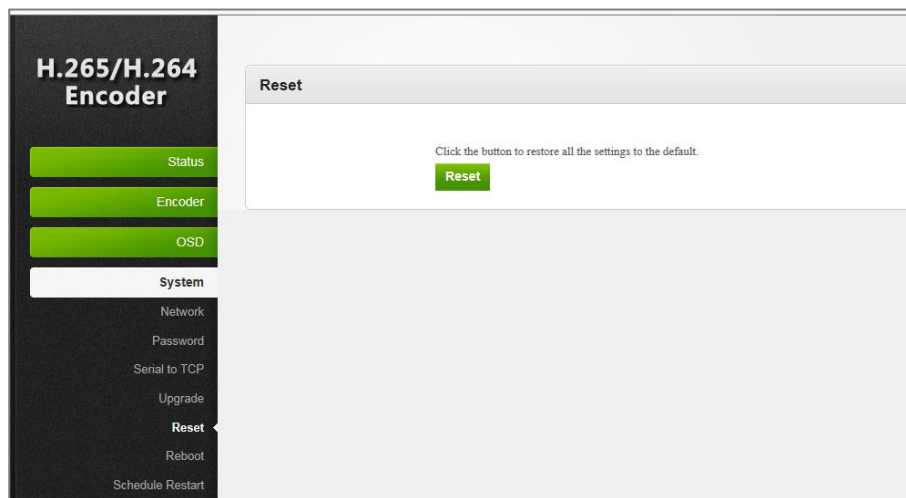
4.4 Upgrade

Click **【System】** → **【Upgrade】** → choose upgrade file.up.rar → click Upload



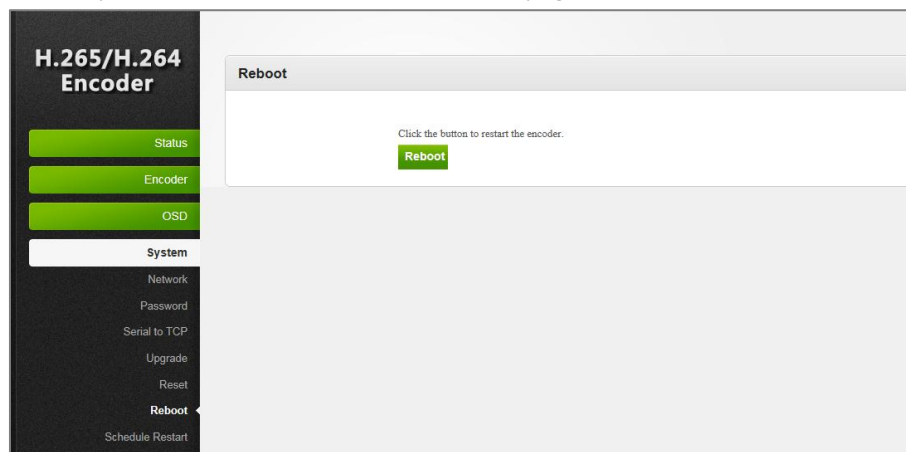
4.5 Reset

Click **【System】** → **【Reset】** → click Reset



4.6 Reboot

When reboot is required, Click Reboot. (Refresh the webpage 1 minute after reboot)



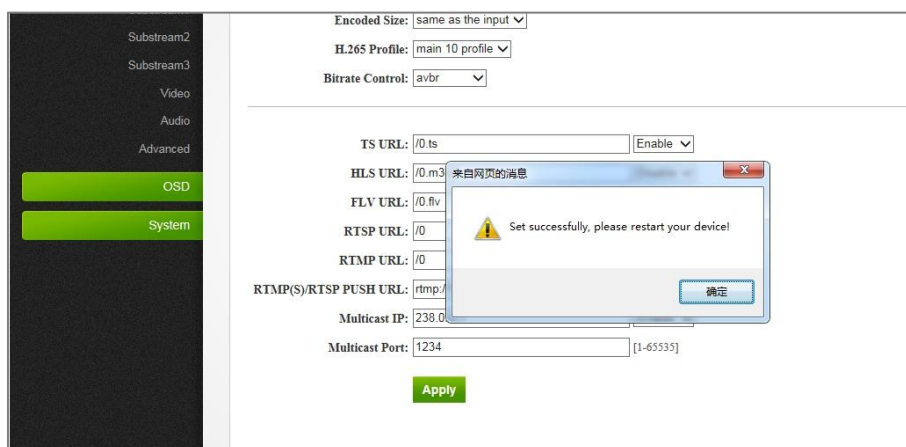
5. Application

5.1 Multicast

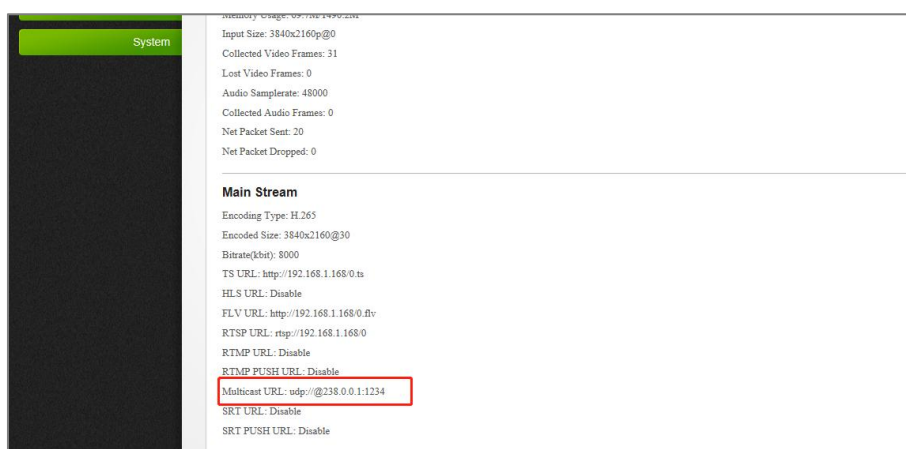
Multicast is designed for multiple local users to watch the video source from one Endcoder.

Enable Multicast in Encoder → Main Stream → Enable Multicast

After Enable Multicast, a warning window pop up. Reboot the Encoder is required.

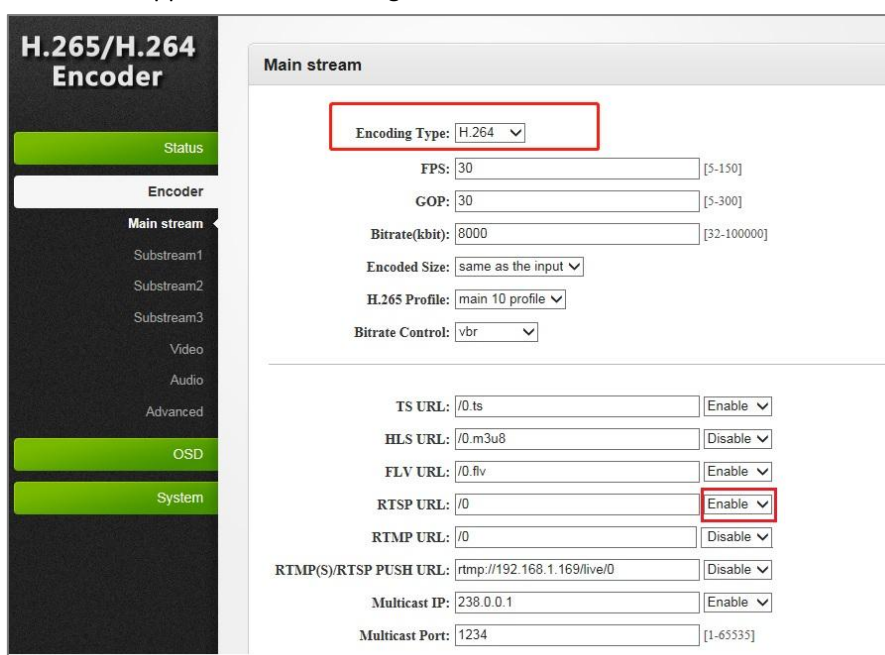


After rebooting the device, a multicast URL is shown in the Status. Copy the multicast URL and paste on VLC Player of each each user.

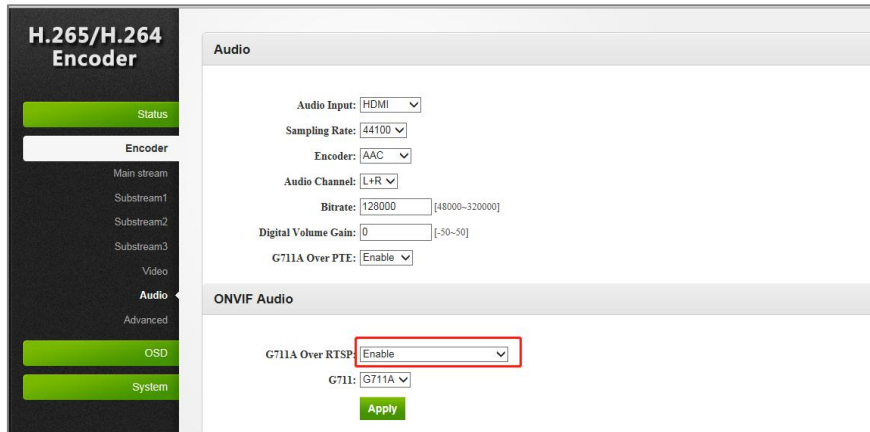


5.2 Play Source on NVR

1. Make sure your NVR can support H.264 decoding. Due to ONVIF communication, RTSP shall be enabled.



2. If the audio from the Encoder need to be recognizable on NVR, the AUDIO setting shall be done. After AUDIO Setting, reboot the Encoder is required.



Note: If NVR cannot play the video after the above setting, download a ONVIF testing tool from <http://url.cn/2ESQRcn> to the test the ONVIF feature on Encoder.

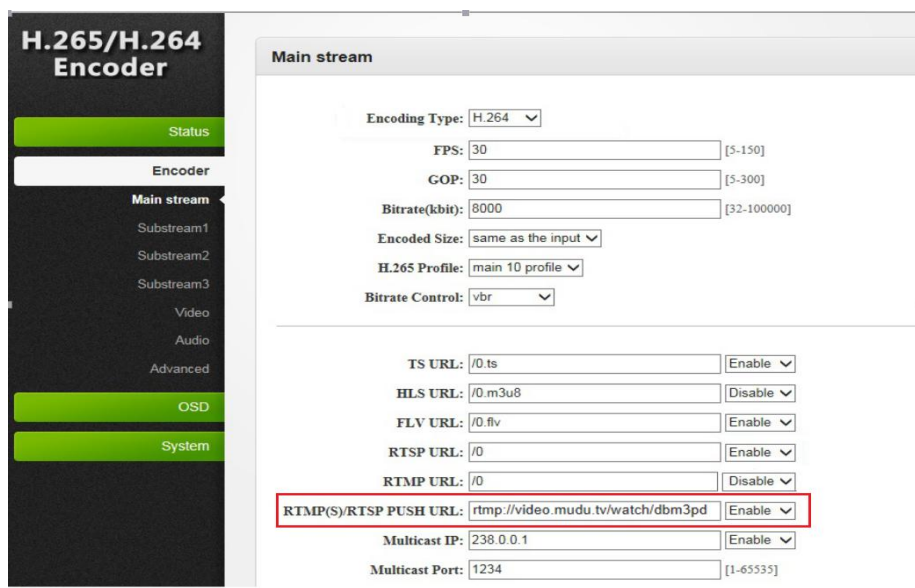
If the ONVIF feature is normal, please check the NVR settings.

5.3 Remote RTMP Connection

If a large number of users from all over the country need to watch the video source of the same encoder at the same time, we suggest the RTMP transfer mode. At present, we perfectly support RTMP server platforms including free platforms: NGINX, RED5 MEDIA SERVER, paid platform: ADOBE MEDIA SERVER5 and some platforms such as <http://mudu.tv/>. Other methods of setting the RTMP publication are as follows:

Since the current RTMP protocol only supports H.264 function, you need to set the encoder type to H.264, set the RTMP publishing address in the live broadcast platform and enable it as shown in the picture below. After setting, please restart the encoder.

Note: Some live streaming platforms provides a live code and the RTMP address. Then we need to combine the two pages of text and fill in to the encoder: RTMP address plus slashes, and live code Such as RTMP address is: RTMP: / / video mudu. TV/live broadcast code for: abcdef combination: rtmp://video.mudu.tv/live/abcdef



6. Trouble Shooting

6.1 Cannot login in the WEB UI

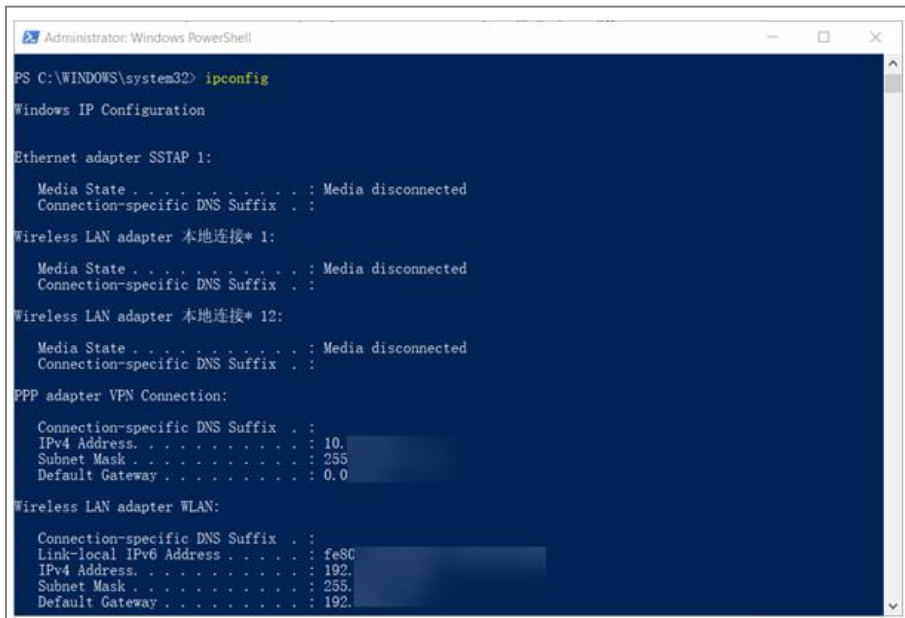
If you cannot open up the WEB UI, check the LAN port and see if it is lit up, if the LAN connection is fine, but you still cannot open up the page, check your IP address and see if your computer is in the network of 192.168.1.XX, if not here is the method for you to manually check and change your IP address.

Check your IP address

Step 1. Press Windows + X  keys together and open Windows

PowerShell  (or Command Prompt).

Step 2. Type ipconfig and hit Enter, then the information will be displayed in the window.



```
Administrator: Windows PowerShell
PS C:\WINDOWS\system32> ipconfig

Windows IP Configuration

Ethernet adapter SSTAP 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter 本地连接* 1:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter 本地连接* 12:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

PPP adapter VPN Connection:

    Connection-specific DNS Suffix  . :
    IPv4 Address. . . . . : 10.
    Subnet Mask . . . . . : 255
    Default Gateway . . . . . : 0.0

Wireless LAN adapter WLAN:

    Connection-specific DNS Suffix  . :
    Link-local IPv6 Address . . . . . : fe80
    IPv4 Address. . . . . : 192.
    Subnet Mask . . . . . : 255
    Default Gateway . . . . . : 192.
```

Manually Change IP Address

- Step 1. Click Start menu, then type **Control Panel** and click the option on the result.
- Step 2. Open **Network and Internet > Network and Sharing Center**.
- Step 3. On the left pane of the new window, click **Change adapter settings**.
- Step 4. You will be displayed with **Network Connections** of the PC.
Important note: Right click on “Ethernet” or “Local Area Connection” if you want to change IP of any physical connection. And right click on “WLAN” in case you wish to change IP of any wireless connections.
- Step 5. Choose **Properties** after right clicking on the network name.
- Step 6. Select the **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**.
- Step 7. **Obtain an IP Address automatically** should be selected by default, but please choose the **Use the Following IP Address**.

- Step 8. Now put your desired IP Address according to your wish its correct format. Change **Subnet mask** and **default gateway** if you want to.

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:

Alternate DNS server:

☐ Validate settings upon exit

Advanced...

OK Cancel

6.2 Cannot Play Video on VLC

If VLC Player does not play video after TS URL is typed in, check the Status of Encoder and see if there are video frames collected.

System

Memory Usage: 09.71M/1490.21M

Input Size: 3840x2160p@0

Collected Video Frames: 31

Lost Video Frames: 0

Audio Samplerate: 48000

Collected Audio Frames: 0

Net Packet Sent: 20

Net Packet Dropped: 0

Main Stream

Encoding Type: H.265

Encoded Size: 3840x2160@30

Bitrate(kbit): 8000

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

HLS URL: Disable

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

RTSP URL: rtsp://192.168.1.168/0

RTMP URL: Disable

RTMP PUSH URL: Disable

Multicast URL: udp://@238.0.0.1:1234

SRT URL: Disable

SRT PUSH URL: Disable

If the signal collected is 0, please check the connection between input device and Encoder and check the HDMI indicator is lit up make sure they are correctly connected, and make sure the input source is supported on Encoder.

Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by full 1 years parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

Headquarter: Room 601A, No. 37-3 Banshang community, Building 3, Xinke Plaza, Torch Hi-Tech Industrial Development Zone, Xiamen, China

- **Tel:** +86-592-5771197
- **Fax:** +86-592-5788216
- **Customer Hotline:** 4008-592-315
- **Web:** <http://www.rgblink.com>
- **E-mail:** support@rgblink.com