



# HDMI IPTV Encoder User's Guide



P/N: HDIPTV265

Thank you for purchasing from gofanco. Our products aim to meet all your connectivity needs wherever you go. For optimum performance and safety, please read the instructions carefully and keep this User's Guide for future reference. If you need more information about our products, please visit [www.gofanco.com](http://www.gofanco.com). For technical support, please email us at [support@gofanco.com](mailto:support@gofanco.com). For drivers and manuals download, please go to [www.gofanco.com/downloads](http://www.gofanco.com/downloads).

## **Important Safety Notices**

Please read safety instructions carefully before installation and operation.

- Please pay close attention to all warnings and hints for this device
- Do not expose this unit to rain, heavy moisture, or liquid
- Do not repair the device or open the enclosure without professional guidance to avoid electric shocks. Doing so may void your warranty
- Keep the product in a well-ventilated location to avoid damage from overheating
- Shut off power and make sure environment is safe before installation
- Do not plug the HDMI cables in/out when the device is in use to avoid cable damage. Make sure they are plugged into the correct ports
- Use the included DC12V power adapter only. Make sure the specification matches if using 3rd-party DC power adapter

## **Package Contents**

- HDMI IPTV Encoder
- Power adapter (12VDC / 1A)
- Phoenix plug for RS232 cable termination (x1)
- Mounting accessories
- User's guide

## **Introduction**

A 1080p IP encoder allows you to broadcast or live stream HDMI audio/video over TCP/IP (Internet/LAN).

## **Features**

- Video decoding: H.265 mainstream, H.264 basic, mainstream and advanced quality, MJPEG/JPEG basic quality
- Audio coding format: AAC, AAC+, AAC++
- Supports up to 1080p@60Hz 4:4:4 HDMI input resolution
- Supports up to 1080p@60Hz output/streaming
- Equipped with an HDMI loopout for a local display
- Supports analog audio extraction & analog audio embedded

## **Installation Requirements**

- HDMI source devices (computer, DVD player, XBOX, PS3, etc)
- HDMI display devices (SDTV/Monitor, HDTV/Monitor, projector, etc.)

# Product Layout



Figure 1: Layout

1. **Audio Embedding Port:** Connect your audio output device for audio embedding
2. **Analog Audio Out:** Connects to speakers or headphones
3. **HDMI In LED:** On when HDMI source device is detected
4. **HDMI In:** Connects to your HDMI source device
5. **HDMI Out LED:** On when HDMI display is detected
6. **HDMI Out:** Connects to your HDMI display
7. **Reset:** Press and hold down for 3 seconds to reset the encoder
8. **Power Jack:** Connects to the included power adapter
9. **RS232:** Control via RS232 (cable not included)
10. **RJ45 Port:** Connects to internet source for streaming

## Hardware Installation

1. Power off all devices including your HDMI sources and HDMI displays.
2. Connect your HDMI source device to the Encoder's HDMI In connector with an HDMI cable (HDMI cable not included).
3. Connect your HDMI display to the Encoder's HDMI Out connector with an HDMI cable (HDMI cable not included).
4. Connect the Encoder's RJ45 port to a router to go to the internet.
5. Connect the Encoder's RS232 port to your computer's RS232 port. This connection is needed only if you require RS232 connection via a computer system. See RS232 Passthrough on page 14 for more information.
6. Plug the included power adapter into the power jack then plug the power adapter into a reliable power source.
7. Power on all connected devices.
8. Go to TCP/IP Control on page 7 to configure and access the HDMI IPTV Encoder.

# Connection Diagram

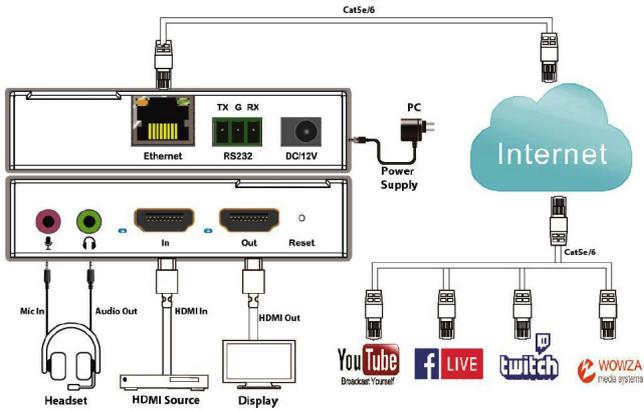


Figure 2: Connection Diagram

## TCP/IP Control

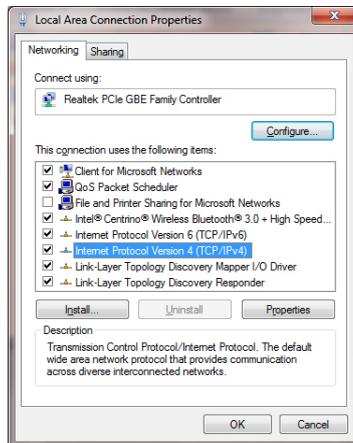
The HDMI IPTV Encoder can be controlled by web GUI via TCP/IP port. Connect your PC to the Encoder's RJ45 connector to configure it.

**Important note:** After the initial configuration, the encoder needs to be connected to the Internet. Disconnect the Encoder from the configuration PC, then connect it to an Internet modem/router via the RJ45 connector.

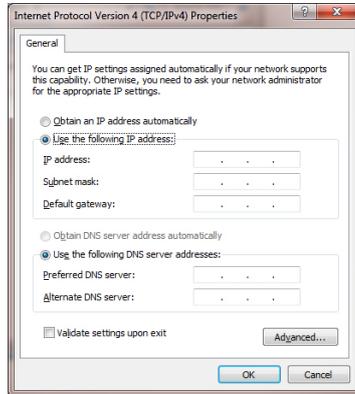
The Encoder's default IP settings are: IP address: 192.168.1.168; Subnet mask: 255.255.255.0

### Change the IP address of your PC

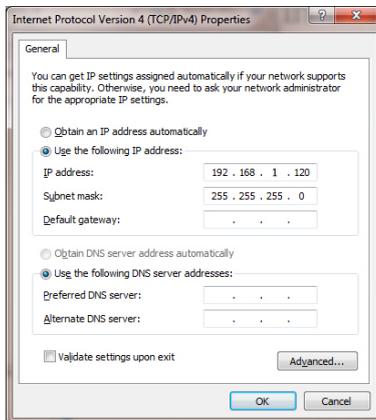
1. Configure your PC as follows:
  1. Click Start / Control Panel / Network and Sharing Center.
  2. Click Change Adapter Settings.
  3. Highlight the network adapter you want to use to connect to the device and click **Change settings of the connection**.
2. Highlight **Internet Protocol Version 4 (TCP/IP/4)**.



### 3. Click **Properties**.



### 4. Select **Use the following IP Address**, and then enter the IP address. **Note:** You can use any IP address in the range: 192.168.1.2 to 192.168.1.254 (excluding 192.168.1.168).



### 5. Click **OK** to save the changes.

### 6. Click **Close** to exit.

## Web GUI Control

1. Connect your PC to the HDMI IPTV Encoder's RJ45 port.
2. Open the GUI by typing in 192.168.1.168 into your browser and the login interface, as shown below, will open.

Username

Password

Login

Username: admin

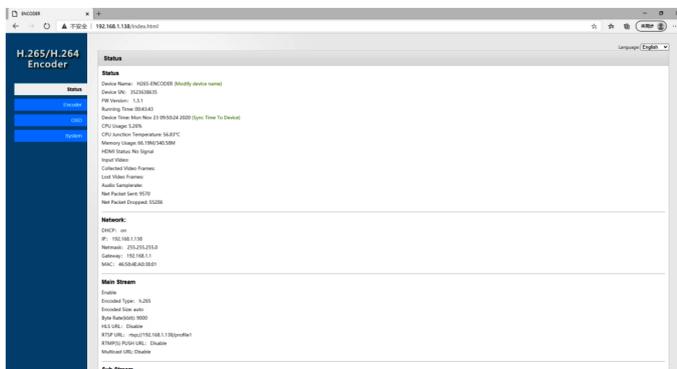
Password: admin

3. Type in the user name and password and click Login to enter the GUI.

## Language Setting

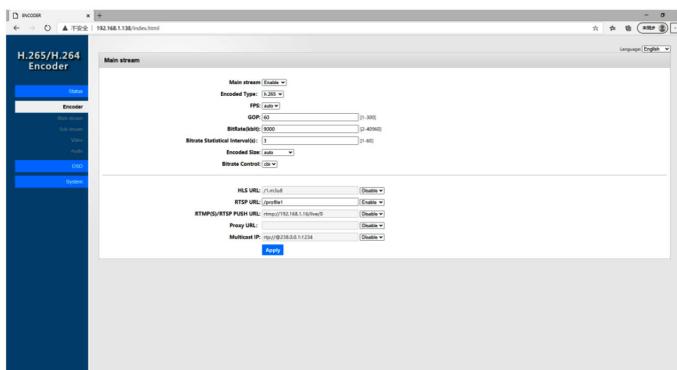


# Status



- Displays the encoder's current setup: Status, Network, Main Stream, Sub Stream, Audio Stream

# Encoder



## Main Stream

1. Channel address can support RTSP / HLS / RTMP (S) / UDP / RTP protocol
2. The maximum support 1920\*1080@60fps resolution decoding. Main stream default auto decoding
3. Bit rate (kbps) maximum support 2-40960, FPS maximum support 1-90, key frame interval maximum support 1-300, bit rate statistical interval (seconds)1-60, bitstream control: support CBR and VBR
4. Enable RTSP by default
  - ※ No need to restart the device after successful setting
  - ※ If all four frames are decoded at the same time, the source supports only 1080P encoded frame rate/key frame interval 25FPS video stream
  - ※HLS format video streams only support H.264 decoding
  - ※ RTMP needs to set the video encoding to H.264, and Youtube needs to set the audio format to AAC

## Sub Stream

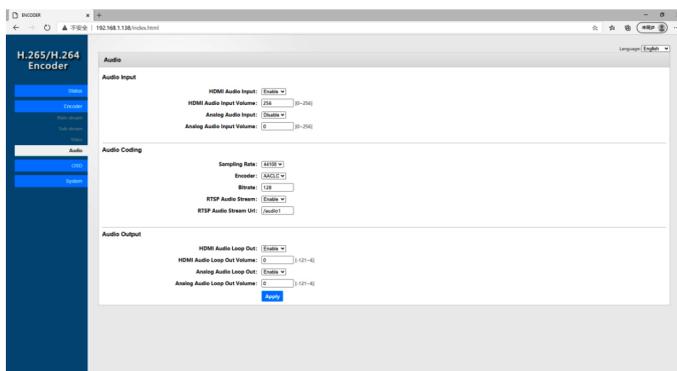
1. The sub stream setting is the same as the main stream
2. The maximum bit rate of sub stream (KBPS) is 2-8192, and the maximum FPS is 1-30
3. After setting the sub stream, you can choose to set the Stream level, including baseline Profile, Main Profile and High Profile

## Video Settings

1. Video Input Settings: Rotation, Mirroring, Flipping, etc.
2. Rotation include 90°, 180°, 270°
3. Video source signal clipping can be used to clip images within the resolution range. Note that it will not take effect until it is started, and it is disabled by default;

Note: The parameters for starting point-cut and cutting width in the upper left corner cannot exceed 1920. The parameters for starting point-cut and Height in the upper left corner cannot exceed 1080, and parameters can only be set to an even number.

## Audio Setting



## Audio Input

Configures HDMI Audio Input and Analog Audio Input settings. When HDMI Audio Input and Analog Audio Input are enabled simultaneously, the audio will stream to both outputs at the same time. Volume Range: 0~256

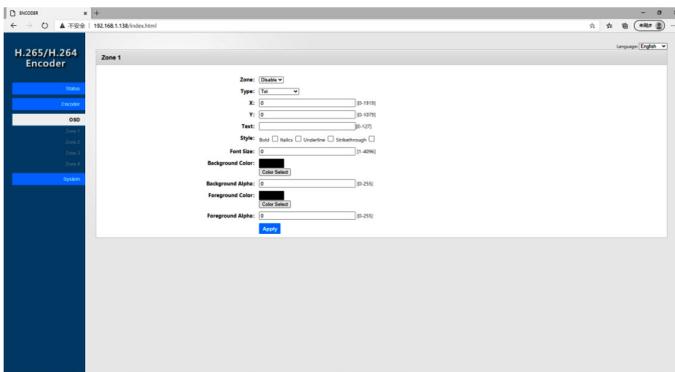
## Audio Coding

- Audio support: AAC, AAC+, and AAC++ (AC3/MP2/MP3)
- Sampling rate: 44.1/48kHz
- Bitrate: 128 (default)
- RTSP audio stream: Enable audio transfer, or modify audio streaming transfer address

## Audio Output

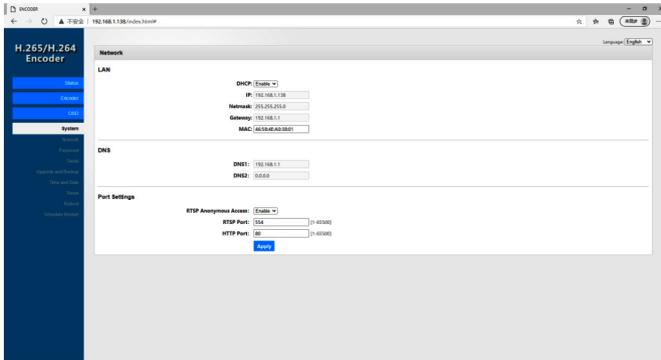
Sets the parameters for the HDMI audio loop-out and Analog audio loop-out

## OSD



**Note:** Make sure Foreground Alpha is set to 1 or more for easier reading

# System



## LAN

- DHCP: Enabled by default
- IP: Can only be modified when DHCP is disabled. The factory default IP address is 192.168.1.168
- Netmask: The factory default is 255.255.255.0
- Mac address: Is factory fixed; modification is supported, however the factory fixed address is restored whenever the encoder is reset

## Port Settings

- RSTP Anonymous Access: When enabled no account and password is needed then receiving video stream

## Password

Allows you to modify the default password

Default user: admin

Default password: admin

A screenshot of a web form titled 'Password'. It contains three input fields: 'Old password:', 'New password:', and 'Confirm new password:'. Below the fields is a blue 'Apply' button.

## RS232 Passthrough

RS232 port supports Encoder to Computer, or Encoder to Encoder serial communication.

**Note:** RS232 passthrough is meant to be used within the same network and isn't accessible over the Internet.

## RS232 Software

- Download: Download the control software from [www.gofanco.com/downloads](http://www.gofanco.com/downloads).
- Installation: Copy the control software files and paste them to the hard drive of your PC, then run Netassist.exe.
- Uninstallation: Delete all control software files from the PC

## Encoder to Computer

1. Connect the PC's RS232 serial port to the Encoder's RS232 port using an RS232 cable (cable not included).
2. Double click Netassist.exe to run the control software.
3. Set the Target Port number and target IP address. Enter the Encoder's web GUI to obtain the information, see Web GUI Control starting on page 9 for more information.
4. Select the BAUD rate, typically 115200bps, for RS232 passthrough between the computer and encoder.

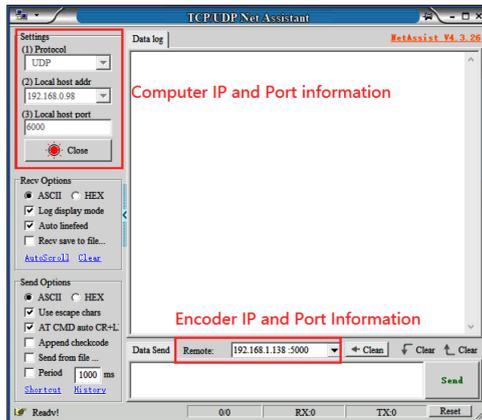
## Encoder to Encoder

To distinguish between source and target encoder, type in the IP address of the source encoder into the Source Port box, then type in the IP of the target encoder into the Target Port box.



The screenshot shows the 'Serial' configuration window. It includes the following fields and controls:

- Onoff:**
- Source Port:** 5000 (range: [1-65535])
- Target IP:** 192.168.1.169
- Target Port:** 5000 (range: [1-65535])
- Baud Rate:** 115200 (dropdown menu)
- Apply:** Button



## Live Streaming Configurations

1. Go to the live streaming page.
2. Find the Live Stream URL and copy it.
3. Open the web browser of your control PC, and type in 192.168.1.168, login to open the Encoder's Web GUI.
4. At the Encoder tab, find the RTMP Push URL box and replace what is in the box with the Live Stream URL copied from YouTube page in step 2.
5. Go back to your live stream page and copy the Stream Key.
6. Go back to the Encoder's RTMP Push URL box.
7. Paste the Stream Key after the URL separated by a forward slash "/".
8. Select Enable, then click Apply, and click OK to restart the Encoder.
9. The Encoder should be streaming live on your streaming software.

## Streaming with software such as VLC Player

**Note:** Streaming with software is meant to be used within the same network and isn't accessible over the Internet.

1. Open the web browser of your control PC, type in 192.168.1.168, login to open the Encoder's GUI.
2. At the Encoder's Status tab, scroll down to the Main Stream information, copy the RTSP URL address.
3. Open your software.
4. Paste the RTSP URL copied in step 2, into the media player software's network URL box.
5. Execute any commands to complete the setup.
6. The Encoder video signal should be playing on the software.

## Input Resolution

Fresh Rate	I/P	Resolution	Support
50Hz ( 8BIT )	I	576i	√
	P	576P	√
	P	720P	√
	P	1080P	√
	I	1080i	√
60Hz /59.94Hz ( 8BIT )	I	480i	√
	P	480P	√
	P	720P	√
	P	1080P	√
30/29.97Hz	P	720P	√
( 8BIT )	P	1080P	√
24Hz ( 8BIT )	P	720P	√
	P	1080P	√
25Hz ( 8BIT )	P	720P	√
	P	1080P	√

## Output Resolution

Resolution	Support
800×600	√
1024×768	√
1280×768	√
1280×1024	√
1600×1200	√
1680×1050	√
1920×1080	√
1280×720	√
1360×768	√

# Specifications

Operating Temperature	0 to +40 °C ( +23 to 149°F )
Operating Humidity	5 to 95%RH(No Condensation)
Max resolution	1080P60HZ-YUV444-8bit
HDCP Compliant	HDCP1.4
Audio Format Supported	Input: LPCM2.0 Sample rate 44.1KHz and 48KHz Audio Encode: AAC, AAC+, AAC++ Audio bit rate: AAC: 48~320 AAC+: 32~128 AAC++: 16~64
RS-232 serial port	3PIN terminal block connectors
Ethernet port (IP control)	RJ45, female
Default IP	192.168.1.168
Dimensions (WxHxD)	124*90*21mm
Net Weight	300g
Power consumption	DC12V1A 4W(Max)

## Disclaimer

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