

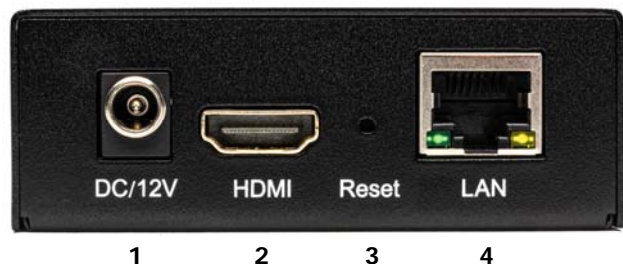
OMX-10HMIP0003 H.264 1080P AV Over IP Full HD HDMI Encoder

INSTALLATION & SPECIFICATIONS



Features

- H.264 Encoding
- 3 LED Indicators for Power, LAN and HDMI
- Web Interface Management
- Image Parameter Settings
- Custom Resolution Settings
- Multi-Streaming Output
- OSD Settings
- Supports VLC, RTMP, & NVR Protocols
- Black Powder-Coated Steel Enclosure
- FCC Certified

OMX-10HMIP0003 Full HD HDMI ENCODER

5 6 7

- 1 Power Input
- 2 HDMI Input
- 3 Reset to Default Setting—press for 10 seconds until all 3 indicators go out
- 4 LAN Output: Default IP 192.168.1.168
- 5 LED Power Indicator
- 6 LED LAN Output Indicator
- 7 LED HDMI Input Indicator

SPECIFICATIONS	
Protocol	H.264 Encoder
Supported Protocols	UDP, HTTP, RTSP, RTMP, ONVIF, VLC, NVR
Transmission Distance	328 Feet over Cat5e/6
CBR/VBR Rate	16Kbps-16Mbps
Video Resolutions	up to 720p, 1080p@60HZ HD`
Audio Format	MPEG1 Audio Layer 2
Dimensions	4 1/8 x 3 1/8 x 1 1/8 Inches
Weight	9.6 oz

Includes

- 1-12VDC/1A Power Supply
- 1 Setup CD,
- 2 Brackets
- 4 Screws

**Configuration Example**

CONFIGURATION—Refer to instructions on the included CD

- Setting the IP Address of the PC— go to Control Panel, Network Connections, Local Area Connections Status, Properties, Internet Protocol (TCP/IP).
 - IP Address enter 192.168.1. XX (0-255)
 - Subnet Mask enter 255.255.255.0
 - Press OK to Save
- Login to Web GUI—In the browser, enter 192.168.1.168 and enter default user name and password—admin.

SETTING PARAMETERS

To set parameters, click on the menu item, set the parameters, and click 'Apply' at the bottom of the screen. Due to software upgrades, screens below may differ in appearance from below.

Main Stream

H264 Encoder

Main stream

FPS: 30 [5-60]

GOP: 30 [5-300]

Bitrate(kbit): 1800 [32-32000]

Encoded size: same as the input

H.264 Level: high profile

Bitrate control: vbr

TS URL: /0.ts Enable

HLS URL: /0.m3u8 Enable

FLV URL: /0.flv Enable

RTSP URL: /0 Enable

Multicast IP: 238.0.0.1 Enable

Multicast port: 1234 [1-65535]

RTMP PUBLISH URL: rtmp://192.168.1.50/live/0 Disable

rtmp://ip:port/xxx or rtmp://user:pass@ip:port/xxx

Apply

Audio

H264 Encoder

Audio

Samplerate: 44100

Encoder: AAC

Bitrate:

Apply

ONVIF Audio

G711A Over RTSP: Disable

Apply

Advanced

H264 Encoder

Advanced

TS Muxer: Compatible with VLC

TS once pack: [3-128]

TS Password Enable: Disable

Apply

CSC

CSC: Disable

Contrast: [0-255], Default: 64

Apply

SETTING PARAMETERS—CONTINUED

To set parameters, click on the menu item, set the parameters, and click 'Apply' at the bottom of the screen.

OSD

The screenshot shows the 'H264 Encoder' interface with the 'OSD' menu item selected. The 'Main stream' tab is active, displaying configuration fields for two OSD streams. Each stream has fields for Alpha (100), Text1, Font size (36), X (10), Y (10), Text2, Font size (36), X (10), Y (62), and LOGO. There are 'Disable' buttons for Text1, Text2, and LOGO. An 'Apply' button is at the bottom right.

Upload Logo

The screenshot shows the 'H264 Encoder' interface with the 'LOGO upload' menu item selected. It displays two upload sections for 'logo1.bmp' and 'logo2.bmp'. Each section has a file selection button, an 'Upload' button, and a note: 'file size should < 500kbyte, 0xP1F1F1 is transparent color. The file name is logo1.bmp'.

Network

The screenshot shows the 'H264 Encoder' interface with the 'Network' menu item selected. The 'Network' tab is active, displaying configuration fields for 'internet access' (DHCP, IP, Netmask, Gateway, MAC), 'DNS' (DNS1, DNS2), and 'Port' (HTTP Port, RTSP Port). An 'Apply' button is at the bottom right.

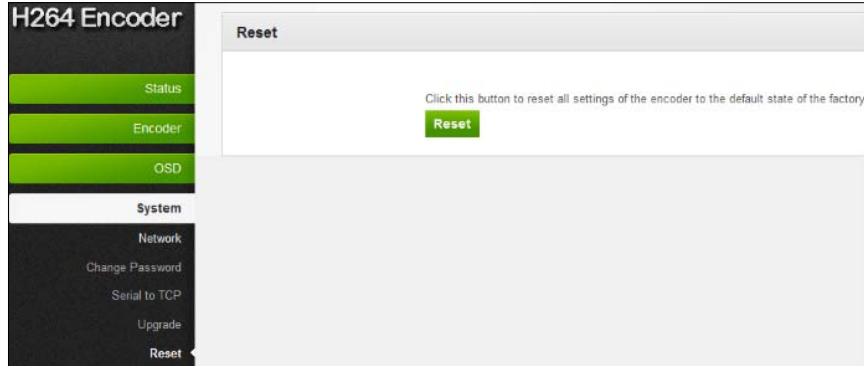
Change Password

The screenshot shows the 'H264 Encoder' interface with the 'Change password' menu item selected. The 'Change password' tab is active, displaying fields for 'Old password', 'New password', and 'Confirm new password'. An 'Apply' button is at the bottom right.

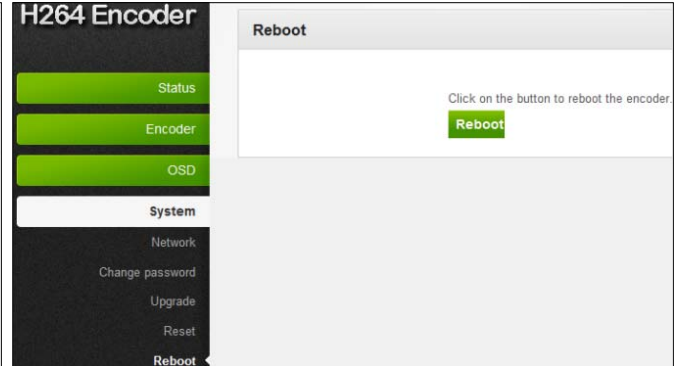
SETTING PARAMETERS—CONTINUED

To set parameters, click on the menu item, set the parameters, and click 'Apply' at the bottom of the screen.

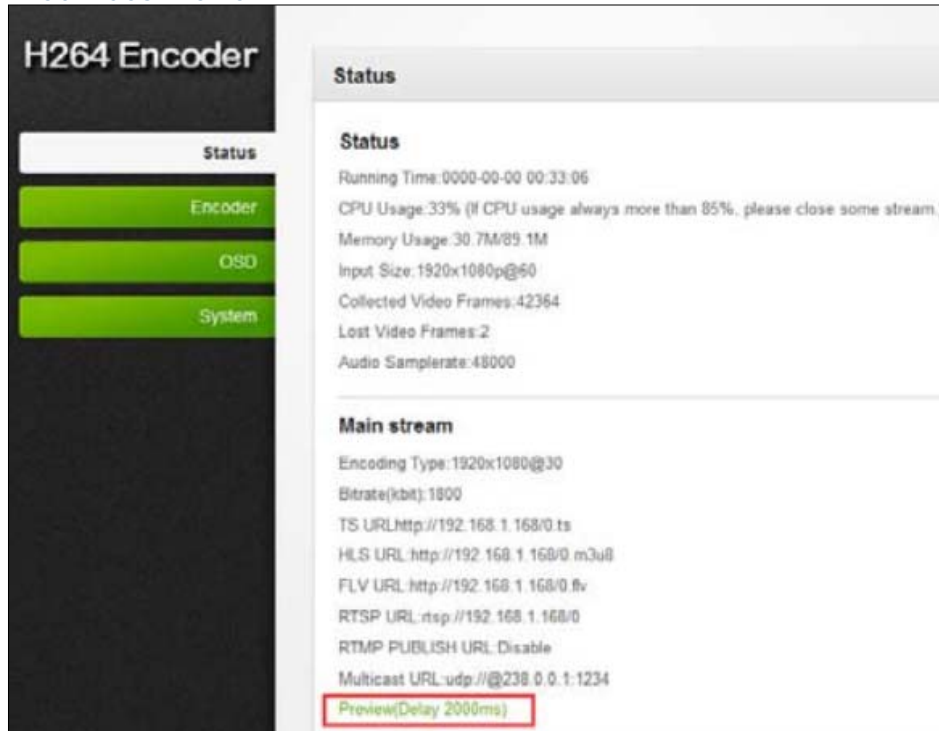
Reset



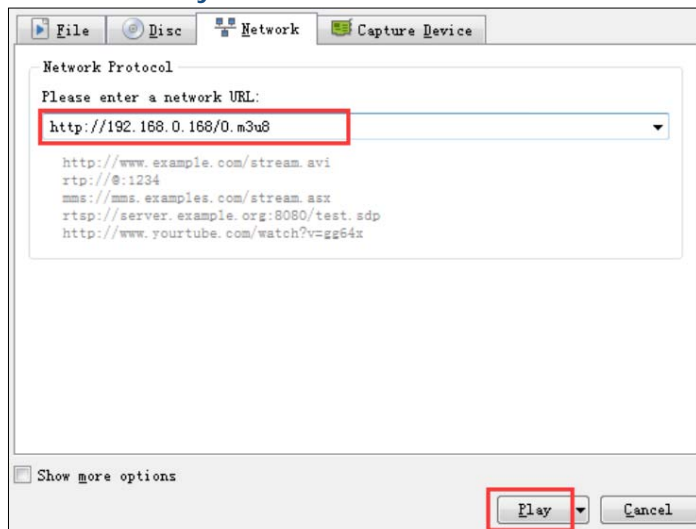
Reboot



Web Video Preview



VLC Media Player



1. Connect the HDMI source to the encoder
2. Download <http://www.videolan.org>
3. Open VLC Media Player
4. Click 'Media'
5. Click 'Open Network Stream'
6. Enter Stream URL from Main Stream page
7. Click 'Play' at bottom of screen

SETTING PARAMETERS—CONTINUED

To set parameters, click on the menu item, set the parameters, and click 'Apply' at the bottom of the screen.

Multicast

H264 Encoder

- Status
- Encoder
- Main stream
 - Substream1
 - Substream2
 - Substream3
 - Audio
 - Advanced
- OSD
- System

Main stream

FPS: 30 [5-60]

GOP: 30 [5-300]

Bitrate(kbit): 1800 [32-32000]

Encoded size: same as the input

H.264 Level: high profile

Bitrate control: vbr

TS URL: /0.ts Enable

HLS URL: /0.m3u8 Enable

FLV URL: /0.flv Enable

RTSP URL: /0 Enable

Multicast IP: 238.0.0.1 Enable

Multicast port: 1234 [1-65535]

RTMP PUBLISH URL: rtmp://192.168.1.50/live/0 Enable

rtmp://ip/xxx/xxx or rtmp://user:pass@ip/xxx/xxx

Apply

1. Enable the Multicast IP
2. Repower the encoder
3. Go to the Status Page and copy the Multicast URL under Main Stream to the VLC player

Status

Status

Running Time:0000-00-00 00:43:07

CPU Usage:32% (If CPU usage always more than 90%, please restart the device)

Memory Usage:30.6M/89.1M

Input Size:1920x1080p@60

Collected Video Frames:78369

Lost Video Frames:2

Audio Samplerate:48000

Main stream

Encoding Type:1920x1080@30

Bitrate(kbit):1800

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 PUBLISH URL:Disable

Multicast URL:udp://@238.0.0.1:1234

Local Surveillance Systems / Network Video Recorder (NVR) Connection

H264 Encoder

- Status
- Encoder
- Main stream
 - Substream1
 - Substream2
 - Substream3
 - Audio
 - Advanced
- OSD
- System

Main stream

FPS: 30 [5-60]

GOP: 30 [5-300]

Bitrate(kbit): 1800 [32-32000]

Encoded size: same as the input

H.264 Level: high profile

Bitrate control: vbr

TS URL: /0.ts Enable

HLS URL: /0.m3u8 Enable

FLV URL: /0.flv Enable

RTSP URL: /0 Enable

Multicast IP: 238.0.0.1 Enable

Multicast port: 1234 [1-65535]

RTMP PUBLISH URL: rtmp://192.168.1.50/live/0 Disable

rtmp://ip/xxx/xxx or rtmp://user:pass@ip/xxx/xxx

Apply

1. For ONVIF standards, enable the RTSP function
2. Enable audio if required

Audio

Samplerate: 44100

Encoder: AAC

Bitrate:

Apply

ONVIF Audio

G711A Over RTSP: Disable

Apply

3. After completing the settings, check the video. If video is not working, download this standard testing tool to test the ONVIF function:

SETTING PARAMETERS—CONTINUED

To set parameters, click on the menu item, set the parameters, and click 'Apply' at the bottom of the screen.

Remote Multi-User RTMP Connection

The screenshot shows the 'LIVE STREAMING' interface. On the left is a sidebar with options: Stream now (BETA), Events, COMMUNITY, CHANNEL, ANALYTICS, CREATE, and Help and feedback. The main area shows a video player with 'OFFLINE' text. Below the player are tabs: BASIC INFO, STREAM OPTIONS, and CARDS. The 'BASIC INFO' tab is active, showing fields for 'Live' status, 'Add description', 'Schedule next stream' checkbox, 'Category' (Gaming), 'Game title (recommended)', 'Privacy' (Public), and 'Advanced settings'. The 'ENCODER SETUP' tab is also visible, showing 'Server URL' (rtmp://a.rtmp.youtube.com/live2) and 'Stream name/key' (masked with asterisks) with a 'Reveal' button.

1. This device supports NGINX, RED5 Media Server, Adobe Media Server5
2. If using RTMP, set the encoder for H.264, set the RTMP address and enable
3. Restart the encoder

The screenshot shows the 'Main stream' settings panel. It includes fields for FPS (30), GOP (30), Bitrate (1800), Encoded size (same as the input), H.264 Level (high profile), and Bitrate control (vbr). Below these are sections for various streaming protocols: TS URL, HLS URL, FLV URL, RTSP URL, Multicast IP, and Multicast port. Each has a corresponding 'Enable' or 'Disable' dropdown. At the bottom, there is an 'RTMP PUBLISH URL' field with a dropdown set to 'Disable', showing a preview of the URL: rtmp://ip:port/xxx or rtmp://user:pass@ip:port/xxx. An 'Apply' button is at the bottom right.

TROUBLESHOOTING

If the video is not working:

1. Check the collected data on the encoder, if it shows 0, then the connection has failed. Check the hardware connection.
2. If the RTMP connection status shows that it is not connected, check the Network setting.

The screenshot shows the 'Status' page. It has a 'Status' section with the following information: Running Time: 0000-00-00 00:14:22, CPU Usage: 32% (If CPU usage always more than 85%, please check), Memory Usage: 30.2M/89.1M, Input Size: 1920x1080p@60, Collected Video Frames: 51588, Lost Video Frames: 2, and Audio Samplerate: 48000. Below this is a 'Main stream' section showing: Encoding Type: 1920x1080@30, Bitrate(kbit): 1800, TS URL: http://192.168.0.168/0.ts, HLS URL: http://192.168.0.168/0.m3u8, FLV URL: http://192.168.0.168/0.flv, RTSP URL: rtsp://192.168.0.168/0, and RTMP PUBLISH URL (Not Connected): rtmp://192.168.1.50/live/0.



SAFETY PRECAUTIONS

- To prevent fire or shock hazard, do not expose this equipment to dust or high humidity. Do not use in an unprotected outdoor installation or in areas classified as overly damp or wet.
- The installation temperature should be kept between 32°F to 140°F (0°C to 60°C). Avoid direct sunlight exposure or extreme changes of temperature over a short period of time.
- Do not place the unit on an unstable base and avoid heavy impact.
- Proper ventilation is required for permanent installation. Do not block or cover enclosure openings as they protect the unit from overheating.
- Prior to cleaning, turn the power off and unplug the unit from all connections. Use a damp cloth. Do not use liquid or aerosol cleaners.
- Do not overload outlets and extension cords as this may result in a risk of fire or electric shock.
- Enclosure entry is dangerous. Never push objects of any kind, including liquids, through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
- Do not open or service this unit yourself as opening or removing covers may expose you to dangerous voltage and other hazards.
- There are no user-serviceable parts inside the unit. If the unit requires service contact your authorized dealer, or authorized repair service company.

Federal Communications Commission (FCC) Compliance Notices

Class A Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Caution

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.