

# MAGEWELL

## Ultra Encode HDMI Technical Specifications

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### Input Features

- Max HDMI input & loop-through signals:
  - 4096x2160 4:4:4/4:2:2 30fps
  - 4096x2160 4:2:0 60fps
- Supported HDMI inputs include:
  - 4096x2160p, 3840x2160p at 23.98/24/25/29.97/30/59.94/60fps
  - 2560x1080p: 23.98/24/25/29.97/30/50/59.94/60fps
  - 1920x1080p: 23.98/24/25/29.97/30/50/59.94/60/100/119.88/120fps
  - 1920x1080i: 25/29.97/30/50/59.94/60fps
  - 1280x720p: 23.98/24/25/29.97/30/50/59.94/60/144fps
  - 720x576p: 50/100/144fps
  - 720x576i: 25/50fps
  - 720x480p: 59.94/60/144fps
  - 720x480i: 29.97/30fps
- 8/10/12-bit color
- Input audio from the 3.5 mm LINE IN
- Support 2-Channel, 24-bit HDMI embedded audio, 192kHz sample rate
- HDMI Input and loop-through interfaces: HDMI 1.4a, DVI-D

### Encoding Features

- Support for encoding main stream and sub stream
- Max bitrate:
  - Main Stream - 16Mbps
  - Sub Stream - 2Mbps
- Support resolutions:
  - HD: 1920x1080, 1600x1200, 1440x1080, 1440x900, 1280x1024, 1280x960, 1280x800, 1280x720, 1024x768
  - SD: 960x540, 800x600, 768x576, 720x576, 720x540, 640x480, 640x360, 480x360, 480x270
- Support frame rates: 60/59.94/50/30/29.97/25/24/15/10/5fps
- H.264/H.265(HEVC) video encoders
- Output AAC at 48kHz, 16-bit
- Support audio bitrates: 32/48/64/96/128/192/256 kbps
- Extracting audio from input signal and output through LINE OUT

### Streaming Features

- Supported streaming protocols: RTSP/RTMP/RTMPS/SRT Caller/SRT Listener/NDI|HX2/HLS (push)/TS over UDP/TS over RTP
- Allow simultaneous sessions over the same streaming protocol. Streaming protocols are as follows.
  - Up to 6 sessions of TS over RTP and TS over UDP simultaneously
  - Up to 6 sessions of SRT Caller and SRT Listener simultaneously, containing one SRT Listener session at most
  - Up to 6 sessions of RTMP and RTMPS simultaneously
- Stream only 1 session of HLS (push), RTSP, or NDI|HX2
- Total bitrates for different network connection types:
  - 24Mbps for all streams is recommended for a wired network connection
  - 16Mbps for all streams is recommended for a wireless network connection
- Natively support Facebook, Twitch and YouTube
- Specify streaming main stream or sub stream for each session

### Web UI Management

- Provide comprehensive information regarding the system information of device and working status in real-time
- Thumbnail preview output signal
- Configure parameters of volume and color, color format and quantization of input and output signals, stream profiles, as well as the network connection
- Update firmware via Web UI
- Export configuration profiles of the device
- Support IE/Edge/Firefox/Chrome/Safari/Opera web browsers
- Provide HTTP APIs

## Network Interfaces

- Wired Ethernet network: 10/100/1000Mbps
- Wi-Fi 802.11 a/b/g/n/ac
- 3G/4G USB mobile broadband Modem (not included)

## Input/Output Interfaces

- HDMI 1.4a input and loop-through interfaces
- 3.5mm LINE IN
- 3.5mm LINE OUT

## LED Indicators

- LEDs indicating the status of power, input signal, streaming, Ethernet/Wi-Fi connection

## Power Supply and Consumption

- DC 5V/2A
- Max power consumption: ~9.5 W

## Form Factor

- 106.6mm x 106.2mm x 25mm

## Accessories

- AC adapter
- Wi-Fi antenna
- USB 2.0 Type B cable
- HDMI cable
- T-bracket

## Screw Mounting Hole

- 2 x M3 threaded hole

## Working Environment

- Operating temperature: 0 to 40 deg C
- Storage temperature: -20 to 70 deg C
- Relative humidity: 5% to 90% non-condensing