

# MAGEWELL

## Ultra Encode SDI Technical Specifications

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### Input Features

- Max input & loop-through signal: 2048x1080 60fps
- Supported inputs include:
  - 2048x1080p/2048x1080i/1920x1080p/1920x1080i 23.98/24/25/29.97/30/47.95/48/50/59.94/60
  - 1280x720p 25/29.97/30/50/59.94/60
  - 720x576 25p/50i (PAL SD)
  - 720x480 29.97p/59.94i (NTSC SD)
- 8/10/12-bit color
- Input & loopthrough 16-Channel SDI embedded audio
- Input Audio from 3.5 mm LINE IN
- SD/HD/3G BNC input & loopthrough
- SD (ST 259)/HD (ST 292)/3Ga (ST 425)/3Gb (ST 425)/3Gb-DL(ST 425)/3Gb-DS(ST 425) standards

### Encoding Features

- Dual stream encoding: main stream and sub stream
- Max bitrates:
  - Main Stream - 16Mbps
  - Sub Stream - 2Mbps
- Supported resolutions:
  - HD: 1920x1080, 1600x1200, 1440x1080, 1440x900, 1280x1024, 1280x960, 1280x800, 1280x720, 1024x768
  - SD: 960x540, 800x600, 768x576, 720x576, 720x540, 640x480, 640x360, 480x360, 480x270
- Supported frame rates: 60/59.94/50/30/29.97/25/24/15/10/5fps
- H.264/H.265 (HEVC) supports system timecode or RP–188 timecode for SEI Message setting
- H.264/H.265 (HEVC) supports native CEA–608/608 over 708 captions
- Encoding 2-channel AAC audio at 48kHz, 16-bit
- Supported audio bitrates: 256/192/128/96/64/48/32/16 kbps
- Extracting audio from SDI signal and output through LINE OUT
- Encoding videos after de-interlacing
- H.265 (HEVC) SEI message supports carrying interlacing signal mark

### Streaming Features

- Natively support Facebook, Twitch and YouTube
- Supported streaming protocols: RTSP/RTMP/RTMPS/SRT Caller/SRT Listener/NDI|HX2/HLS/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 (max 8 clients simultaneously)
  - Up to 6 sessions of RTMP and RTMPS simultaneously
- Stream only 1 session of HLS, 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
- Specify streaming main stream or sub stream for each session

### Configuration Management

- Register with Magewell Cloud
- Remote control via WebUI and Magewell Cloud
- Provide comprehensive information regarding the system information of device and working status in real-time

- Video thumbnail preview
- Configure parameters of volume and color, input and output signals, stream profiles, no signal image, the Ethernet and Wi-Fi connection, as well as date and time
- Update firmware
- 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

- SD/HD/3G BNC 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 and Wi-Fi connection

## Power Supply and Consumption

- DC 5V/2A
- Max power consumption: ~7.6 W

## Form Factor

- 106.6mm x 106.2mm x 25mm

## Accessories

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

## Screw Mounting Hole

- 2 x M3 threaded hole
- A standard 1/4"-20 socket provided by T-bracket

## Working Environment

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