

# e3830 Encoder

## HDMI Encoder



HDMI encoder that delivers HD or SD H.264 streams from an HDMI video input over your existing network, including sources such as digital cameras, digital signage systems and PCs.

### Interfaces

- Video Input
  - Single HDMI interface
  - DVI signalling support
- Audio Input
  - HDMI (Embedded PCM)
- 802.3 10/100/1000BaseT Ethernet (RJ-45 chassis socket)
- Serial RS232 Port for local admin (RJ-45 chassis socket)

### Streaming

- Single program MPEG-2 transport stream (ISO/IEC 13818-1)
- UDP
- RTP
- SRT (licensable feature)
- IP unicast
- IP multicast
- IGMP Join Group for enhanced switch compatibility
- NewTek® NDI® (licensable feature)

### Channel Management

- Channel announcement via SAP/SDP
- Multicast/unicast address selection (automatic/manual)
- Configurable name, number and group membership

### Management

- Configurable using management tools:
  - Admin level management using Avedia Server Site Manger application
  - HTTPS device web interface; recommended browser: Chrome®
- SSDP & mDNS device discovery
- RESTful API
- Serial RS232 Admin Port
- Event logging via Syslog (local and remote)

### Features & Benefits

- Stream HD or SD H.264 streams from an HDMI video input over your existing network
- Minimise glass-to-glass latency with full multicast delivery when streaming live video
- Deliver high-quality streams into NDI production environments
- Highly reliable modular blade-into-chassis design allows 'hot swapping' to minimise downtime

### Video Input

- Automatic detection of resolution and frame rate
- Resolutions supported:
  - 1080p 23.98Hz/24Hz/50Hz/59.94Hz/60Hz
  - 1080i 50Hz/59.94Hz/60Hz
  - 720p 50Hz/59.94Hz/60Hz
  - 480p/525p 59.94Hz & 576p/625p 50Hz
  - 480i/525i 59.94Hz & 576i/625i 50Hz
- HD 16:9 aspect ratio
- SD 16:9 aspect ratio

### Video Encoding

- H.264
  - MPEG-4 part 10 H.264 (ISO/IEC 14496-10)
  - High Profile @ Level 4
  - Video resolution: 525i, 525p, 625i, 625p, 720p, 1080i, 1080p
  - Bit rate: 1Mbps - 30Mbps
  - Frame rate: 23.98Hz/24Hz/50Hz/59.94Hz/60Hz
  - Constant or variable bit rate
- NDI (Licence required)
  - Video resolution up to 1080p60
  - Bit rate up to 160Mbps
  - Frame rate: 23.98Hz/24Hz/50Hz/59.94Hz/60Hz
  - Variable bit rate

## Latency

- H.264: sub 400mS
- NDI: sub 100mS

## Audio Encoding

- AAC
- Encoding bit rate 48kbps – 512kbps
- Audio sampling rate 48kHz

## Network

- Linux IPv4 stack
- DHCP or Static IP addressing
- 1000BASE-T, 100BASE-TX and 10BASE-T (802.3ab, 802.3u and 802.3 respectively)

## Protocols

IP (RFC 791), UDP (RFC 768), TCP (RFC 793), ARP (RFC 826), DNS (RFC 1035), DHCP (RFC 2131), DNS-SD (RFC 6763), ICMP (RFC 792), IGMP (RFC 3376), mDNS (RFC 6762), NTP (RFC 1305), SAP (RFC 2974), SDP (RFC 4566), RTP (RFC 3550), SSDP, SRT, Syslog (RFC 3164)

## Regulatory

- CE:
  - IEC 62368-1:2014
  - EN62368-1:2014 + A11:2017
  - EN55032:2012 + corrigenda Aug 2012 & Dec 2012
  - EN55024:2010 + A1:2015
  - EN 61000-3-2:2014
  - EN 61000-3-3:2013
- UL/CSA:
  - UL62368-1/CSA C22.2 No. 62368-1, Rev. February 17, 2012
- FCC:
  - 47CFR:2011 Part 15, Sub Part B
  - ANSI C63-4:2014
- ACMA:
  - AS/NZS 62368:2018
  - AS/NZS CISPR 32: 2015

## Physical Format

- Modular hot swap blade
- c1101 Chassis (1 input)
- c1103 Chassis (up to 3 inputs)
- c1210 Chassis (up to 10 inputs)

## Environment

- Operating: 0 ...+40°C / +32 ... +104°F
- Storage: -20 ...+70°C / -4 ... +158°F
- Operating and storage Relative Humidity: 10-90% (non-condensing)

## Dimensions

- L: 275mm x W: 130mm x H: 40mm; weight 0.5kg

## Power

- DC 24V: 10W typical, 25W maximum

## MTBF

- Calculated to MIL-HDBK-217F, notice 2: 79421 hours (9.1 years)

## In the Box

- e3830 encoder blade, single HD HDMI in, up to 1080p out
- Product Safety Brochure (hard copy)

## Ordering Information (P/N)

- 18359 (avstr-e3830-std) - e3830 std encoder