

# AvediaStream Encoders

avstr-e3730-hdcp-32



## AvediaStream e3730 HDCP 32 Encoder

HDMI encoder which delivers HDCPv2.2 protected premium or sensitive IP video streams to up to 32 end points. It encodes HD or SD H.264 streams from an HDMI video input over your existing network, including sources such as satellite set top boxes, digital cameras, digital signage systems, PCs and Blu-Ray/DVD Players.



### Interfaces

- Video Input
  - HDMI interface with HDCP (see Content Protection below)
  - DVI signalling support
- Audio Input
  - HDMI (Embedded PCM)
- 802.3 10/100/1000BaseT Ethernet (RJ-45 chassis socket, dual Ethernet features for redundancy purposes require c1210 chassis)
- Serial RS232 Port for local administration (RJ-45 chassis socket)
- IR Out (3.5mm jack socket)

### Streaming

- Single program MPEG-2 transport stream (ISO/IEC 13818-1)
- UDP/RTP
- IP unicast
- IP multicast
- IGMP Join Group for enhanced switch compatibility
- Up to 200Mbps total stream output

### Channel Management

- Channel announcement via SAP/SDP
- Up to 10 simultaneous stream destinations
- Multicast/unicast address selection (automatic/ manual)
- Configurable name, number and group membership

### Content Protection

- HDCPv2.2 content protection (encryption to protect output stream, enforced on HDCP protected input, optional otherwise)
- Up to 32 end points supported
- HDCP-protected content playback not supported on AvediaPlayer r92xx Receivers

### Management

- Fully integrated with all Exterity management tools:
  - Admin level management using AvediaServer Director and AvediaCare applications
  - HTTP/HTTPS device web interface; recommended browser: Chrome®
- SNMP
- SSDP device discovery
- RESTful API
- Serial RS232 Admin Port
- Event logging via Syslog (local and remote)
- Firmware upgrade via TFTP
- Configuration backup/restore via TFTP

### 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

- 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 – 20Mbps
- Frame rate: 23.98Hz/24Hz/50Hz/59.94Hz/60Hz
- Constant or variable bit rate

### Audio Encoding

- MPEG-1 Layer II (ISO/IEC 11172-3)
- AAC
- Encoding bit rate 48kbps – 512kbps
- Audio sampling rate 48kHz

### Enhanced Features

- Test pattern generation
- Automatic streaming of fixed color/ test pattern on loss of video
- Watermarking (overlay customizable text or logo onto video)

## Scaler

- Dedicated hardware scaler
  - User-configurable up/down scaling
  - User-configurable frame rate adjustment

## System

- CPU: Power Architecture e500 1Ghz
- RAM: 512 MB
- Flash: 528MB (for firmware and configuration)
- OS: Linux 3.12

## Network

- Linux IPv4 stack
- DHCP or Static IP addressing
- Two IEEE 802.3u 10/100/1000Mbps MDIX Ethernet interfaces

## Protocols

IP (RFC 791), UDP (RFC 768), TCP (RFC 793), ARP (RFC 826), DNS (RFC 1035), DHCP (RFC 2131), ICMP (RFC 792), IGMP (RFC 3376), TFTP (RFC 1350), HTTP (RFC 2616), Syslog (RFC 3164), NTP (RFC 1305), SAP (RFC 2974), SDP (RFC 4566), RTP (RFC 3550), SNMP (v1, v2c -RFC 1901), IPv6 (RFC 8200), DHCPv6 (RFC 8415), SLAAC (RFC 4862), MLD (v2) (RFC 3810), NDP (RFC 4861)

## Regulatory

- **CE**
  - EN55032:2012 + corrigenda Aug 2012 & Dec 2012
  - EN55024:2010 + A1:2015
  - EN 61000-3-2:2014
  - EN 61000-3-3:2013
  - IEC 60950-1:2005 (Ed. 2.0) + Am 1:2009 +Am 2:2013
  - EN60950-1 2006 + A11:2009, A1:2010, A12:2011, A2:2013
- **UL**
  - UL60950-1/CSA C22.2 No. 60950-1, 2nd Edition. Rev. Oct 14, 2014
- **FCC**
  - 47CFR:2011 Part 15, Sub Part B, ANSI C63-4:2009
- **ACMA**
  - EN 55022:2010 +AC2011, AS/NZS 60950.1.2011 +A1

## Physical Format

- Modular hot swap blade for Exterity chassis
- AvediaStream c1101 (1 inputs)
- AvediaStream c1103 (up to 3 inputs)
- AvediaStream c1210 (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: 13W typical, 19W maximum

## MTBF

- Calculated to MIL-HDBK-217F, notice 2: 68989 hours (7.9 years)