AvediaStream e3535

The AvediaStream e3535 encoder streams pre-recorded and live TV (news, sports, entertainment, educational) HD and SD channels over your existing network. It encodes and distributes content from sources with an HDMI® output* such as Blu-Ray/DVD Players, set top boxes, digital cameras, digital signage systems and PCs to an IP network. It can upscale to 1080p or downscale to SQCIF.

Additional benefits include:

- Hot swap module allows quick and non intrusive upgrade to existing installations
- Accepts wide range of video input resolutions and scales to standard TV resolutions
- 1080p, 1080i, 720p, HD, SD or Sub-SD Encoding
- MPEG-2 AAC or MPEG-1 layer 2 audio encoding
- Video input options: HD AV, RGBHV or YPbPr
- Audio input options: HD AV, Unbalanced Stereo or S/PDIF
- H.264 video encoding from devices such as Blu-ray Disc players, digital signage systems and PCs
- IR out for remote control of source device
- Frame rate and audio sample rate conversion

		e2310	e2320	e3522	e2635	e3635	e3535	e2655	e3655	e3555
Encoding	HD 1080p						✓			✓
	HD 1080i			✓		✓	✓		✓	✓
	SD	✓	✓	✓	✓	✓	✓	✓	✓	✓
	H.264	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MPEG-2	✓	✓		✓	✓		✓	✓	
Video Inputs	Composite	✓	✓	✓						
	S-Video	✓	✓							
	SD Component	✓	✓	✓	✓	✓	✓			
	HD Component			✓	✓	✓	✓			
	RGBS		✓							
	RGBHV				✓	✓	✓			
	HD AV				✓	✓	✓			
	SD SDI							✓	✓	✓
	HD SDI							✓	✓	✓
	3G SDI							✓	✓	✓
Audio Inputs	Line Level Stereo Audio	✓	✓	✓	✓	✓	✓			
	Balanced Audio			✓						
	Embedded Audio				✓	✓	✓	✓	✓	✓
	PCM Digital Audio			✓	✓	✓	✓	✓	✓	✓
	IR Out			✓			✓			

Table 1. Encoder Comparison Table

AIRWAVE www.airwave.tv exterity®

Encoder Technical Specifications

e3535 Blade

Chassis
C1
C3
C10

Resolution
SD
ED
HD
PC

Version
1.2
2012_11_29

Technical Specifications

Interfaces

Video Input:
- HD AV (HDMI style connector, HDCP encrypted content is not supported),
- RGBHV (15-pin D-type)
- YPbPr (Component) using adaptor

Audio Input:
- HD AV (Embedded)
- Unbalanced Line Level stereo (RCA). 2V p-p 75Ω
- S/PDIF Digital Audio (RCA). 0.5V p-p 75Ω

IR out (3.5mm jack socket)
802.3 10/100BaseT Ethernet (RJ-45 chassis socket)
Serial RS232 Port for local administration (RJ-45 chassis socket)

Streaming

Up to 80Mbps output per blade
Single program MPEG-2 transport streams (ISO/IEC 13818-1)
RTP
UDP
Multi IP unicast (up to 10 simultaneous locations)
IGMP
Channel announcement using SAP/SDP
Video or audio only options

Administration Interface

Configurable Video Input Selection
Configurable aspect ratio override
Multicast/unicast address selection (automatic or manual)
Configure name, number and group membership

Management

Fully integrated with all Exterity management tools
Network administration via HTTP web interface, SNMP & Telnet
Serial RS232 Admin Port
Telnet Control Interface (TCI)
Event logging via Syslog (RFC 3164) local and remote
Firmware upgrade via TFTP
Configuration backup/restore via TFTP

Video Input

PC, HD, ED, SD auto-switching
Resolutions supported:
- 1080p 23.98Hz/24Hz/50Hz/59.94Hz/60Hz, 1080i 50Hz/59.94Hz/60Hz, 720p 50Hz/59.94Hz/60Hz, 525p 60Hz and 625p 50Hz, 480/525i 60Hz and 576i/625i 50Hz (HD AV/YPbPr), WXGA (1280×768) 60Hz, UXGA (1600×1200) 60Hz, SXGA (1280×1024) 60Hz, XGA (1024×768) 60Hz/75Hz, SVGA (800×600) 60Hz/75Hz/85Hz, VGA (640×480) 60Hz/75Hz/85Hz

HD 16:9 aspect ratio
SD 4:3/16:9 aspect ratio

MPEG-4 Encoding

HD: H.264 High Profile Level 4.0
SD: H.264 Main Profile Level 3.0
Sub-SD 100kbps - 10Mbps
525i/625i 500kbps - 15Mbps
525p/625p 1Mbps - 15Mbps
720p 2Mbps - 20Mbps
1080i/1080p24 3Mbps - 24Mbps
1080p50/60 4Mbps - 30Mbps
Constant or variable bitrate
SQCIF, QCIF, CIF, DCIF, QVGA, HVGA, VGA, WVGA, FWVGA, D1, ED, 720p, 1080i, 1080p video resolutions
frame rate conversion

Audio Encoding

Stereo:
- MPEG-1, Layer 2 or MPEG-2 AAC (LC profile)
- Encoding bit rate 48kbps – 384kbps
- Audio sampling rate 32kHz, 44.1kHz or 48kHz
- Audio sample rate conversion

Additional Features

Watermarking (encode customisable text into stream)
Test pattern generation
Automatic streaming of fixed colour/test pattern on loss of video

IR Output

LIRC based control of AV source device

System

CPU: MIPS 4Kc 492MHz
RAM: 64MB
Flash: 16MB (for firmware and configuration)
OS: Linux 2.6

Network

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

Protocol

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),Telnet (RFC 318) Syslog (RFC 3164), NTP (RFC 1305), SAP (RFC 2974), SDP (RFC 4566), RTP (RFC 3550), SNMP (v1, v2c -RFC 1901)

Regulatory

CE:
EN55022: 2006, EN61000: 2006, EN55024:2003
IEC 60950-1: 2005 Second Edition /EN 60950-1: 2006
+ A11:2009

UL/CSA:
47CFR: 2008, ANSI C63-4: 2003
CSA 60950-1-03, 1st Ed. UL 60950-1, 1st Ed.

Power

DC 24V: 12W Typical, 14W Maximum

Physical Format

Modular hot swap blade for Exterity chassis
AvediaStream c1101 providing 1 input
AvediaStream c1103 providing up to 3 inputs
AvediaStream c1110 providing up to 10 inputs

Dimensions

L: 275mm x W: 130mm x H: 40mm

Weight

0.5kg

Environment

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

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