

AvediaStream e3655

The AvediaStream e3655 encoder delivers HD or SD, MPEG-2 or H.264, streams from the SDI outputs of broadcast video equipment over your existing IP network. Accepts video inputs up to 1080p and encodes at resolutions from 240p to 1080i.

Additional benefits include:

- MPEG-2 or H.264 video encoding
- 1080i, 720p, ED, SD or Sub-SD encoding
- MPEG-2 AAC or MPEG-1 Layer II audio encoding
- Video input options up to 3G SDI
- Audio input options: Embedded audio or S/PDIF
- Frame rate and audio sample rate conversion
- SDI pass-through output for chaining devices
- Embedded system for high reliability and low power consumption
- Hot swap module allows quick and non-intrusive upgrade to existing installations



e3655
Blade

Technical Specifications

Interfaces

Video Input:

3G SDI - SMPTE 424M,
HD SDI - SMPTE 292M or
SDI - SMPTE 259M
(BNC) 1.75V p-p 75Ω

Audio Input:

3G SDI, HD SDI or SDI (Embedded, single audio pair from eight available)

S/PDIF Digital Audio (RCA). 0.5V p-p 75Ω

802.3 10/100BaseT Ethernet (RJ45 chassis socket)

Serial RS232 Port for local administration (RJ45 chassis socket)

Streaming

Single program MPEG-2 transport streams (ISO/IEC 13818-1)

RTP

UDP

IP unicast

IP multicast

IGMP Join Group for enhanced switch compatibility

Channel Management

Channel announcement via SAP/SDP

Multicast/unicast address selection (automatic or manual)

Configurable name, number and group membership

Management

Fully integrated with Exterity management tools

Network administration via SSH, Telnet and SNMP

HTTP web interface (Supported browsers Firefox, Internet Explorer and Chrome)

Serial RS232 Admin Port

Telnet Control Interface (TCI)

Event logging via Syslog (local and remote)

Firmware upgrade via TFTP

Configuration backup/restore via TFTP

Chassis

C1

C3

C10

Resolution

SD

HD



Video Input

HD and SD auto-switching

Resolutions supported:

3G SDI: 1080p 50Hz/59.94Hz/60Hz,

HD SDI: 1080p 23.98Hz/24Hz,

1080i 50Hz/59.94Hz/60Hz,

720p 50Hz/59.94Hz/60Hz,

SDI: 525i 60Hz and 625i 50Hz

HD 16:9 aspect ratio

SD 4:3/16:9 aspect ratio

Video Encoding

MPEG-4 part 10 H.264 (ISO/IEC 14496-10)

High Profile @ Level 4

MPEG-2 (ISO/IEC 13818-2)

Main Profile @ Main Level

Video resolution: 240p, 525i, 625i, 525p, 625p, 720p, 1080i

Bit rate: 128kbps – 20Mbps

Frame rate: 12Hz – 60Hz

Constant or variable bit rate

Audio Encoding

MPEG-1 Layer II (ISO/IEC 11172-3)

AAC

Encoding bit rate 48kbps – 384kbps

Audio sampling rate 48kHz

Additional Features

Watermarking (encode customisable text and logo onto video)

Test pattern generation

Automatic streaming of fixed colour/test pattern on loss of video

System

CPU: ARC 500MHz

RAM: 512MB

Flash: 128MB (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 60950-1-07, 2nd Ed. UL 60950-1, 2nd 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)

More information on Encoders

	e2110	e2220	e3522	e2635	e3635	e3535	e2250	e2655	e3655	e3555
Encoding	Full HD**					✓				✓
	HD Ready*		✓		✓	✓				✓
	SD	✓	✓	✓	✓	✓	✓	✓	✓	✓
	H.264			✓	✓	✓		✓	✓	✓
	MPEG-2	✓	✓		✓	✓	✓	✓	✓	
	Software Scaler	✓	✓	✓			✓			
	Hardware Scaler				✓	✓		✓	✓	✓
	MPEG-1 Layer II	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Stereo AAC				✓	✓		✓	✓	✓
	Composite	✓	✓	✓						
Video Inputs	S-Video	✓								
	SD Component	✓	✓	✓	✓	✓				
	HD Component			✓	✓	✓				
	RGBS	✓								
	RGBHV				✓	✓				
	HD AV				✓	✓				
	SD SDI						✓	✓	✓	✓
	HD SDI							✓	✓	✓
Audio Inputs	3G SDI							✓	✓	✓
	Line Level Stereo Audio	✓	✓	✓	✓	✓				
	Balanced Audio		✓	✓						
	Embedded Audio				✓	✓	✓	✓	✓	✓
	PCM Digital Audio		✓	✓	✓	✓	✓	✓	✓	✓
	IR Out	✓	✓	✓		✓				

Table 1. Encoder Comparison Table

* Supports up to 1080i 50/60 resolutions ** Supports up to 1080p 50/60 resolutions

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