The AvediaStream e2320 encoder streams video (e.g., news, sports, entertainment, educational) channels over your existing network. It encodes and distributes content from a wide range of sources such as DVD Players, set-top boxes and digital cameras to an IP network. The e2320 is a dual encoder so can stream simultaneously from two independent video sources.

**Technical Specification**

**Interfaces**

- **Video Input:**
  - Dual inputs providing Composite, Component, S-Video and RGBS
  - RCA 1V p-p 75Ω
- **Audio Input:**
  - Dual Unbalanced Line Level stereo (3.5mm jack socket)
  - 2V p-p 75Ω

**Streaming**

- Single program MPEG-2 transport streams (ISO/IEC 13818-1)
- RTP
- UDP
- IP unicast
- IP multicast
- IGMP Join Group for enhanced switch compatibility
- Up to 80Mbps total stream output
Management
- Fully integrated with Exterity management tools
- Network administration via SSH, Telnet and SNMP
- Serial RS232 Admin Port
- Terminal Control Interface (TCI)
- HTTP web interface (supported browsers: Firefox, Internet Explorer and Chrome, check with support@exterity.com for version information)
- Event logging via Syslog (local and remote)
- Firmware upgrade via TFTP
- Configuration backup/restore via TFTP

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

Video Input
- PAL, SECAM, NTSC auto-switching
- Resolutions supported: 525i (480i) 59.94Hz & 625i (576i) 50Hz
- 4:3 / 16:9 aspect ratio
- Wide Screen signaling for automatic aspect ratio switching

Video Encoding
MPEG-4 part 10 H.264 (ISO/IEC 14496-10)
- High Profile @ Level 3 (profile user configurable)
- Configurable GOP structure
MPEG-2 (ISO/IEC 13818-2)
- Main Profile @ Main Level
- Configurable GOP structure
Closed Captions
Output Video Resolution:
- 525i input: SQCIF (128x96p), QVGA (320x240p), SIF (352x240p), 525i (720x480i)
- 625i input: SQCIF (128x96p), QVGA (320x240p), CIF/SIF (352x288p), 625i (720x576i)
- Bit rate: 128kbps – 15Mbps
- Frame rate: 25Hz – 60Hz
- Constant or variable bit rate

Audio Encoding
- MPEG-1 Layer II (ISO/IEC 11172-3)
- Stereo encoding bit rate 64kbps – 384kbps
- Mono encoding bit rate 48kbps
- Audio sampling rate 48kHz

System
- CPU: ARC 500MHz
- RAM: 256MB
- Flash: 128MB (for firmware and configuration)
- OS: Linux 2.6

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

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

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

Regulatory
CE:
- EN55022:2010, EN55024:2010
- EN61000-3-3: 2008

FCC/UL/CSA:
- ANSI C63-4:2003
Physical Format
Modular hot swap blade for Exterity chassis
• AvediaStream c1101 providing 1 input
• AvediaStream c1103 providing up to 3 inputs
• AvediaStream c1210 providing 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)

Power
DC 24V: 10W Typical, 12W Maximum

MTBF
Calculated to MIL-HDBK-217F, notice 2: 107677 hours (12.3 years)

AvediaStream Encoders

<table>
<thead>
<tr>
<th>Source</th>
<th>e2220</th>
<th>e3635-std</th>
<th>e3635-pro</th>
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<td>1</td>
<td>1</td>
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</tr>
</tbody>
</table>

| Video Input            |       |           |           |       |       |       |
| Composite              | ✓     |           |           |       |       |       |
| S-Video                | ✓     |           |           |       |       |       |
| SD Component           | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| HD Component           | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| RGBS                   | ✓     |           |           |       |       |       |
| RGBHV                  | ✓     | ✓         | ✓         |       |       |       |
| HD AV                  | ✓     | ✓         | ✓         |       |       |       |
| SDI (SDI, HD, 3G)      |       |           |           | ✓     | ✓     | ✓     |
| Audio Input            |       |           |           |       |       |       |
| Line Level Stereo Audio| ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| Embedded Audio         |       | ✓         | ✓         | ✓     | ✓     | ✓     |
| PCM Digital Audio      |       | ✓         | ✓         | ✓     | ✓     | ✓     |

| Encoding               |       |           |           |       |       |       |
| HD 1080p               |       |           |           |       |       |       |
| HD 1080i/720p          |       |           |           |       |       |       |
| SD                     | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| H.264                  | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| MPEG-2                 | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| HDCPv2 Content Protection |     |           |           |       |       |       |
| Video Scalor           | ✓     |           |           |       |       |       |
| MPEG-1 Layer II Audio  | ✓     | ✓         | ✓         | ✓     | ✓     | ✓     |
| Stereo AAC Audio       |       |           |           |       |       |       |

| Streaming              |       |           |           |       |       |       |
| UDP/RTP multicast      | Unlimited | Unlimited | Unlimited | Unlimited | Unlimited | Unlimited |
| UDP/RTP unicast        | 10  | 1         | 10        | 10    | 10    | 10    |
| HLS                    | 10  |           | 10        |       |       |       |
| RTSP                   | ✓    |           | ✓         |       |       |       |

AvediaStream Encoder blades must be installed in an AvediaStream Chassis.