

# AvediaStream Transcoder



Datasheet (avstr-t3605)

## AvediaStream t3605 Transcoder

Create

Delivering high quality TV and video to an unlimited number of users has never been easier. The AvediaStream Transcoder receives, processes and streams HD and SD content at various bit rates, codecs and resolutions to TVs, PCs and other devices using your existing network.



- Video transcoding from head end devices on your IP network
- Interoperates with a wide range of third party applications and devices for digital signage and streaming media
- Extend streams outside conventional LANs using HLS and RTSP
- Fully integrated with all Exterity head end and client devices
- Embedded system delivers high reliability and low power consumption
- Hot swap module allows quick and non-disruptive upgrade to existing installations

## Transcoder Functionality

### Extend an IPTV System

- Send streams simply through routed networks by converting Multicast to/from Unicast.

### Play streams on a wide range of equipment

- Convert HD to SD and make HD channels available on SD decoders.

### Convert standards to match decoders

- Downscale bit rate, aspect ratio, resolution or half-frame rate to precisely match client device requirements eg MPEG-2 to/from H.264, MPEG-1 to/from AAC etc.

### Stream across low bandwidth links and to remote locations

- Convert to lower resolutions and bitrates (e.g. 720p 8 Mbps to 240p 1 Mbps).

The screenshot shows the 'Channel A Source' configuration page. It includes a 'Main Menu' on the left with options like General, Status, Network, Channel Learning, Authentication, Maintenance, and Logging. The main area has a 'Channel A Source' header and a 'Select the source of the stream to be transcoded' instruction. Below this is a 'Stream Source URI' field with the value 'udp://239.192.0.54:5000'. There is an 'Audio Stream Selection' dropdown set to 'Automatic' and an 'Apply' button. A table lists available channels with columns for Number, Name, and other details.

Number	Name	Stream Source URI	Type	Test
0	Ozodlik Radiosi 212	udp://239.192.70.100:5000	Radio	DMTest
0	Azadliq Radiosu 213	udp://239.192.71.100:5000	Radio	DMTest
0	Ahura TV 215	udp://239.192.72.100:5000	TV	DMTest
0	Kabul Stream 216	udp://239.192.73.100:5000	Radio	DMTest
0	Azattyk Radiosy 217	udp://239.192.74.100:5000	Radio	DMTest
0	Azattyk Radiosi 218	udp://239.192.75.100:5000	Radio	DMTest
0	RL North Caucasus 220	udp://239.192.76.100:5000	Radio	DMTest
0	Europa Libera 221	udp://239.192.77.100:5000	Radio	DMTest
0	RSE Balkans 222	udp://239.192.78.100:5000	Radio	DMTest
0	Radio Farda 223	udp://239.192.79.100:5000	TV	DMTest
0	Persian TV 225	udp://239.192.80.100:5000	TV	DMTest

## Technical Specification

### Interfaces

- Two 802.3 10/100BaseT Ethernet (RJ-45 chassis socket, note only single Ethernet functionality is available at this firmware release)
- Serial RS232 Port for local administration (RJ-45 chassis socket)

### Inbound Streams

- Single program MPEG-2 transport streams (ISO/IEC 13818-1)
- UDP, RTP
- IP unicast
- IP multicast via IGMP

### Outbound Streams

- Single program MPEG-2 transport streams (ISO/IEC 13818-1)
- UDP, RTP, RTSP and HLS
- IP unicast
- IP multicast
- IGMP Join Group for enhanced switch compatibility

### Inbound Channel Management

- Automatic channel discovery via SAP/SDP
- XML channel list
- User-specified channels

### Outbound 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). Check with support@exterity.com for version information

- Serial RS232 Admin Port
- Terminal Control Interface (TCI)
- Event logging via Syslog (local and remote)
- Firmware upgrade via TFTP
- Configuration backup/restore via TFTP

### Video Input Standards

- MPEG-4 part 10 H.264 (ISO/IEC 14496-10)
- MPEG-2 (ISO/IEC 13818-2)
- Resolutions: up to 1080i @ 50Hz, 59.94Hz or 60Hz

### Audio Input Standards

- MPEG-1 Layer II (ISO/IEC 11172-3)
- AC3/EAC3 (AC3 encoded audio pass through only, video can be transcoded)
- AAC/HE-AAC (AAC LATM audio pass through only, video can be transcoded)
- Downmix multi channel audio to stereo

### Video Output Standards

- 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
- 128kbps – 20Mbps
- Frame rate: 12.5Hz-60Hz
- Constant or variable bit rate

### Audio Output Standards

- MPEG-1 Layer II (ISO/IEC 11172-3)
- AAC
- Encoding bit rate 48kbps – 384kbps
- Audio sampling rate 48kHz
- Audio pass-through

## 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

## 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), RTSP (RFC 2326), HLS

## Environment

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

## Physical Format

- Modular hot swap blade for Exterity chassis
- AvediaStream c1101 single blade per chassis
- AvediaStream c1103 up to 3 blades per chassis
- AvediaStream c1210 up to 10 blades per chassis

## Regulatory

### CE

- EN55022:2010
- EN55024:2010
- EN61000-3-2: 2006 +A1: 2009 + A2: 2009
- EN61000-3-3: 2008
- IEC 60950-1:2005 (Second Edition) + Am 1: 2009 + Am 2:2013
- EN 60950-1:2006 + A11:2009 +A1:2010 + A12:2011 + A2:2013

### UL/CSA

- 47CFR:2011 Part 15, Sub Part B
- ANSI C63-4:2003
- UL60950-1/CSA C22.2 No. 60950-1, Second Edition. Rev. October 14, 2014

## Dimensions

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

## Power

- DC 24V: 6W Typical, 9.5W Maximum

## Weight

- 0.5kg