

AvediaStream Gateway

avstr-g4448



AvediaStream g4448 Gateway

The AvediaStream g4448 Gateway captures live TV and radio from terrestrial sources and streams them across an IP network. With eight inputs in a single blade, the g4448 combines low cost per channel with high reliability.



Interfaces

- Eight DVB-T/T2/C/C2 tuners (dual 75 ohm F-type input connectors, each RF input feeds four tuners)
- Two 802.3 10/100/1000BaseT Ethernet (RJ-45 chassis sockets, dual Ethernet features require AvediaStream c1210 chassis)
- Serial RS232 port for local administration (RJ-45 chassis socket)

Streaming

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

Channel Management

- Channel announcement via SAP/SDP
- Interoperable with Samsung LYNK SINC servers
- Configurable DVB-T/T2/C/C2 scanning (basic and advanced modes)
- Stream specific channels from selected multiplexes
- Multicast/unicast address selection (automatic or manual)
- Configure name, number and group membership per channel
- Fine-grained control over audio, subtitles and other channel metadata using advanced PID filtering:
 - Create custom SPTS streams containing elements from a channel
 - Filters on PSI data, table types and PID number
 - Unlimited number of PIDs filtered

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

RF Input

- Maximum data rate of 72Mbps per transport stream
- Input frequency range: 42-1002 MHz

DVB-T (ETSI EN 300-744)

- Input sensitivity:
 - -79.6dBm (8K, 64 QAM, Code Rate 2/3)
- Signal modulation / coding:
 - FFT 2K, 8K, QPSK, 16QAM, 64QAM
- Code rate 1/2, 2/3, 3/4, 5/6, 7/8
- Guard interval 1/4, 1/8, 1/16, 1/32
- FEC: Reed Solomon & Viterbi
- Channel Bandwidth: 6 MHz, 7 MHz, 8 MHz

DVB-T2 (ETSI EN 302-755)

- Input sensitivity:
 - -78.1dBm (8K, 64 QAM, Code Rate 2/3, DTG 104)
 - -78.2dBm (32K, 256 QAM, Code Rate 3/5, DTG 106)
 - -76.3dBm (32K, 256 QAM, Code Rate 2/3, DTG 109)
- Signal modulation / coding:
 - FFT 1K, 2K, 4K, 8K, 16K, 32K
 - QPSK, 16QAM, 64QAM, 256 QAM
- Code rate 1/2, 3/5, 2/3, 3/4, 4/5, 5/6
- Guard interval 1/4, 19/256, 1/8, 19/128, 1/16, 1/32, 1/128
- FEC: BCH & LDPC
- Channel Bandwidth: 1.712 MHz, 5 MHz, 6 MHz, 7 MHz, 8 MHz

DVB-C (ETSI EN 300-429)

- Input sensitivity:
 - -79.6dBm (64 QAM, Code Rate 2/3)
- Signal modulation / coding:
 - 16QAM, 32QAM, 64QAM, 128QAM, 256 QAM
- Channel Bandwidth: 8 MHz
- FEC: Reed Solomon & Viterbi
- Symbol Rates: 1.8 – 7.2 Msym/s
- Roll off: 0.15

DVB-C2 (ETSI EN 302-769)

- Input sensitivity:
 - -76.3dBm (1024 QAM, Code Rate 3/4)
- Signal modulation / coding:
 - 16QAM, 64QAM, 256 QAM, 1024QAM, 4096QAM
- Code rate 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
- Guard interval 1/64, 1/128
- Channel Bandwidth: 6Mhz, 8 MHz
- FEC: BCH & LDPC
- Symbol Rates: 1.8 – 7.2 Msym/s
- Roll off: 0.15

System

- Linux based

Network

- Linux dual IPv4/IPv6 stack
- DHCP/DHCPv6 or Static IP addressing
- Two IEEE 802.3u 10/100/1000Mbps MDIX Ethernet Interfaces
- Ethernet redundancy - automatic switching to secondary Ethernet if network failure occurs (c1210 chassis required)

Protocols

IP (RFC 791), UDP (RFC 768), TCP (RFC 793), ARP (RFC 826), DNS (RFC 1035), DHCP (RFC 2131), ICMP (RFC 792), IGMP v3 (RFC 3376), TFTP (RFC 1350), HTTP (RFC 2616), HTTPS (RFC 2818), 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:
 - 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
 - EN 303 340 V1.1.2
- UL/CSA/FCC:
 - 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

Physical Format

- Modular hot-swap blade for Exterity chassis
 - AvediaStream c1101 providing 8 inputs
 - AvediaStream c1103 providing up to 24 inputs
 - AvediaStream c1210 providing up to 80 inputs

Dimensions

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

Weight

- 0.55kg

Power

- DC 24V: 21W Typical, 31W Maximum

Environment

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

MTBF

- Calculated to MIL-HDBK-217F, Notice 2: 43540 hours (5 years). A single g4448 is 1.7 times more reliable than the equivalent 3rd generation products (MTBF comparing 1 x g4448 versus 4 x g4340 in a c1210 chassis)