

# AvediaStream Gateway

avstr-g4415-sm



## AvediaStream g4415-sm Gateway

The AvediaStream g4415-sm Gateway captures content-protected live TV and radio from satellite sources and streams it securely across an IP network. With dual conditional access slots and built-in SecureMedia encryption the g4415-sm meets the most stringent content protection requirements and delivers high value and Broadcaster premium channels across your IP network.



### Interfaces

- Two DVB-S/S2 tuners (dual 75 ohm F-type input connectors)
- 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
- Streaming output up to 500Mbps free to air or 120 Mbps encrypted

### Channel Management

- Channel announcement via SAP/SDP
- Configurable DVB-S/S2 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

- Input connector: two 75 ohm F-type
- Tuning range: 950 to 2150 MHz
- Input level: -25 dBm to -65 dBm
- Maximum data rate: 72Mbps per transport stream
- LNB supply: 350mA per RF input with short-circuit protection
- LNB voltage: 13 or 18V

### Signal Modulation / Coding:

- **DVB-S (ETSI EN 300 421 Broadcast services)**
  - Modulation: QPSK: 1/2, 2/3, 3/4, 5/6, 7/8
  - Symbol rates: 1 to 45 MSymbols/s
  - FEC: Reed Solomon & Viterbi
  - Roll off: 0.35
- **DVB-S2 (ETSI EN 302 307 Broadcast services)**
  - Modulation: QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
  - 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
  - Symbol rates: 1 to 45 MSymbols/s
  - FEC: LDPC & BCH
  - Roll off: 0.2, 0.25, 0.35
- **DiSEqC: 1.0, 1.1, 1.2**

## 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)

## 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 303 372-2 V1.1.1
- UL/CSA/FCC:
  - UL60950-1/CSA C22.2 No. 60950-1, Second Edition. Rev. October 14, 2014
  - 47CFR:2011 Part 15, Sub Part B
  - ANSI C63-4:2003

## 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)

## Physical Format

- Modular hot-swap blade for Exterity chassis
  - AvediaStream c1101 providing 2 inputs
  - AvediaStream c1103 providing up to 6 inputs
  - AvediaStream c1210 providing up to 20 inputs

## Dimensions

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

## Weight

- 0.55kg

## Power

- DC 24V: 14W Typical, 17W 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: 39228 hours (4.5 years)