AvediaStream® Gateway

AvediaStream g4442 Gateway

Datasheet | avstr-g4442

exterity a VITEC company

The AvediaStream g4442 Gateway receives content-protected live TV and radio from terrestrial RF sources and streams them across an IP network. With dual conditional access slots the g4442 descrambles and distributes encrypted and free to air channels across your IP network.

Interfaces

- Two DVB-T/T2/C/C2 tuners (single 75 ohm F-type input connector)
- 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)
- Two DVB-CI interfaces accept professional and commercial CAMs
- Supports Mediaguard, Viaccess, Irdeto, Conax decrypting and more

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 REACH servers
- Configurable DVB-T/T2/C/C2 scanning (basic & advanced)
- Stream specific channels from selected multiplexes
- Multicast/unicast address selection (automatic/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 Site Manager applications
  - HTTP/HTTPS device web interface; recommended browser: Chrome®
- SNMP
- 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), SSDP, SNMP (v1, v2c RFC 1901), IPv6 (RFC 8200), DHCPv6 (RFC 8415), SLAAC (RFC 4862), MLD (v2) (RFC 3810), NDP (RFC 4861)

Regulatory

CE:

- IEC 62368-1: 2018 Edition 3.0
- EN55032:2012
- EN55024:2010
- EN61000-3-2: 2006 +A1: 2009 + A2: 2009
- EN61000-3-3: 2008

UL/CSA:

- UL62368-1:2019
- CSA C22.2 No. 62368-1:19

FCC:

- 47CFR:2011 Part 15, Sub Part B
- ANSI C63-4:2003

ACMA:

- AS/NZS 62368:2018

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

Environment

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

Dimensions

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

Power

- DC 24V: 12W Typical, 18W Maximum

MTBF

- Calculated to MIL-HDBK-217F, Notice 2: 59700 hours (6.8 years)

In the Box

- AvediaStream g4442, dual DVB-T/T2/DVB-C/C2 gateway with dual CA slots
- F-type connector key
- Product Safety Brochure (hard copy)

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