

AvediaStream TVgateways



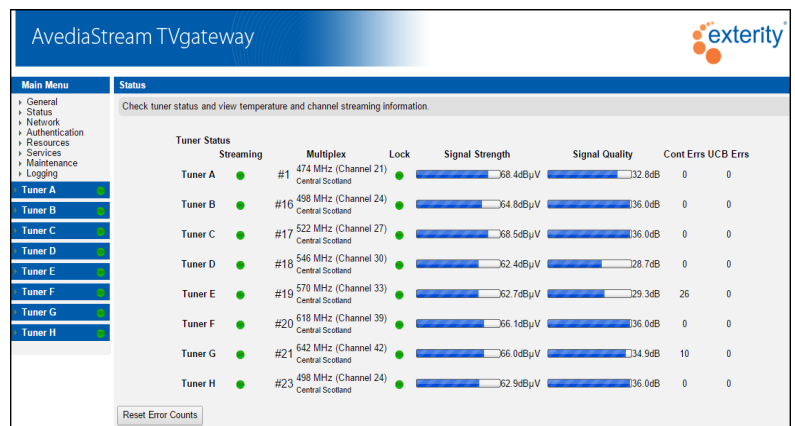
Datasheet (avstr-g4448)

AvediaStream g4448

Create

The AvediaStream g4448 TVgateway 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.

- High density product with eight x DVB-T/T2/C/C2 RF tuners per blade for free-to-air TV or radio channels
- Streams both SD and HD channels simultaneously
- Advanced filtering to create duplicate channels (eg language specific), control bandwidth or provide data services such as EPG or MHEG data
- Single blade delivers maximum channel density for minimum rack space
- Exterity 4th generation TVgateway technology gives improved RF performance, high reliability and low power consumption (around 200 mW per channel depending on multiplexes used)
- Future-proof IPTV technology with support for 4K/ Ultra HD/HEVC broadcast streams



Technical Specification

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



Management

- Fully integrated with Exterity management tools
- Network administration via SSH and SNMP
- HTTP web interface (supported browsers: Firefox, Internet Explorer and Chrome, check with support@exterity.com for version information)
- Serial RS232 Admin Port
- Event logging via Syslog (local and remote)
- Firmware upgrade via TFTP
- Configuration backup/restore via TFTP

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

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

- CPU: Dual core Power Architecture e500v2 1.2Ghz
- RAM: 1GB
- Flash: 528MB (for firmware and configuration)
- OS: Linux 3.8

Network

- Linux IPv4 stack
- DHCP 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)

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

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

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

FCC/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

Weight

- 0.55kg

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: 21W Typical, 31W Maximum

MTBF

Calculated to MIL-HDBK-217F, Notice 2: 43622 hours (5.0 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)

TVgateway Comparison Table

	g4190	g4310	g4330	g4340	g4370	g4410	g4412	g4415 -SM	g4415 -LK	g4418	g4442	g4448	UCT xQIP (US)
DVB-C				✓							✓	✓	
DVB-C2											✓	✓	
DVB-T			✓	✓							✓	✓	
DVB-T2				✓							✓	✓	
DVB-S		✓				✓	✓	✓	✓	✓			
DVB-S2		✓				✓	✓	✓	✓	✓			
ATSC					✓								
Clear QAM					✓								✓
Encrypted QAM													✓
ASI	✓												
Content Protection								Secure Media®	Samsung LYNK™				
Tuners	1	2	2	2	2	2	2	2	2	8	2	8	6-60
CAM card slots							2	2	2		2		1-10 Cable CARDS