

AvediaStream TVgateways



Datasheet (avstr-g4440)

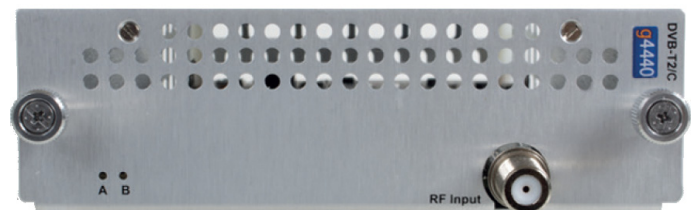
AvediaStream g4440

Create

The AvediaStream g4440 TVgateway receives live free to air TV and radio from terrestrial RF sources and streams them across your IP network. With support for 4K and HEVC video streams, the g4440 provides future-proof IPTV technology.

- Dual 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 (e.g. language specific), control bandwidth or provide data services such as EPG or MHEG data
- High reliability, high performance embedded architecture
- Exterity 4th generation TVgateway technology gives improved RF performance, high reliability and low power consumption
- Future-proof IPTV technology with support for 4K/ Ultra HD/HEVC broadcast streams

Main Menu		Status	
General		Check tuner status and view temperature and channel streaming information.	
Status			
Network			
Authentication			
Resources			
Services			
Maintenance			
Logging			
Tuner A			
Tuner B			
		Reset Error Counts	
Channels			
Tuner	Num	Name	Address
A	651	QA BBC 1 Scot HD	rtp://239.192.1.185:5000
B	76	QA Jewellery Maker	udp://239.192.78.185:5000
		Type	SAP
		HD TV	✓
		TV	✓
		Groups	all
		all	all
Uptime:		5 days, 18:31	
Board Temperature:		32°C	
CPU Temperature:		48°C	
CPU Fan:		4313RPM	



Technical Specification

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)

Channel Management

- Channel announcement via SAP/SDP
- Interoperable with Samsung LYNK SINC servers
- Stream specific channels from selected multiplexes

- Configurable DVB-T/T2/C/C2 scanning (basic & advanced)
- 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

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, Telnet and SNMP
- HTTP web interface (supported browsers: Firefox, Internet Explorer and Chrome, check with support@externity.com for version information)
- 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

- 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)

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), Telnet (RFC 318) 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
- EN61000-4-11: 2004

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

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

- 0.5kg

Power

- DC 24V: 14W Typical, 20W 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: 59457 hours (6.8 years)

TVgateway Comparison Table

	g4190	g4370	g4410	g4412	g4415 -SM	g4415 -LK	g4418	g4440	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	8	2	2	8	6-60
CAM card slots				2	2	2			2		1-10 Cable CARDS