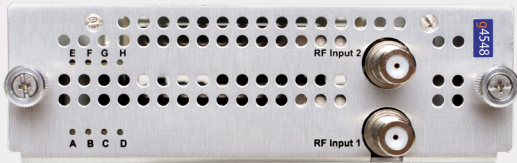# g4548-us RF Gateway

Octa ATSC/QAM

The g4548-us RF Gateway captures live ATSC and ClearQAM TV and radio from terrestrial and cable sources and streams them across an IP network. With eight inputs in a single blade, the g4548-us combines low cost per channel with high reliability.

Interfaces

- Eight ATSC/Clear QAM tuners (dual 75 ohm F-type input connectors, each RF input feeds four tuners)
- Two 802.3 100/1000BaseT Ethernet (RJ-45 chassis sockets, dual Ethernet features require 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
- SRT
- IP multicast
- IP unicast
- 500 Mbps total (input and output) streaming

Management

- Configurable using management tools:
  - Admin level management using Avedia Server Site Manager application
  - HTTPS device web interface; recommended browser: Chrome®
- RESTful API
- Serial RS232 Admin Port
- Event logging via Syslog (local and remote)
- Firmware upgrade
- Configuration backup/restore

Features & Benefits

- High density product with eight ATSC and ClearQAM RF tuners per blade for free-to-air TV or radio channels
- Any stream codec and resolution support
- Advanced filtering to control bandwidth or provide data services such as EPG or MHEG data
- Single blade delivers maximum channel density for minimum rack space
- 5th generation RF Gateway technology delivers high reliability and optimised low power consumption
- Supports optional SRT, AES and 5x IP input for greater platform flexibility

Channel Management

- Channel announcement via SAP/SDP
- Interoperable with Samsung LYNK REACH 4 servers
- Configurable ATSC/ClearQAM scanning (basic and advanced modes)
- Stream specific channels from selected multiplexes
- Multicast/unicast address selection (automatic or manual)
- Configure channel name and number
- 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

ATSC

A/53Part2(2011)

- Input sensitivity:
  - -83 to -5dBm
- Signal modulation / coding:
  - 8 VSB
- Channel Bandwidth:
  - 6 MHz
- Code rate:
  - 2/3

ClearQAM J.83B

ITU-T J.83 v3.0

- Input sensitivity:
  - -68 to -5dBm (256 QAM)
- Signal Modulation / coding:
  - 64 QAM, 256 QAM
- Symbol Rates:
  - 5.056941, 5.360537, 5.6 Msym/s
- Roll off:
  - 0.12, 0.18

System

- Linux-based

Network

- Linux dual IPv4/IPv6 stack
- DHCP/DHCPv6 or Static IP addressing
- VLAN support for Admin and Streaming network segregation
- Two IEEE 802.3u 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), HTTP (RFC 2616), HTTPS (RFC 2818), Syslog (RFC 3164), NTP (RFC 1305), SAP (RFC 2974), SDP (RFC 4566), RTP (RFC 3550), IPv6 (RFC 8200), DHCPv6 (RFC 8415), SLAAC (RFC 4862), MLD (v2) (RFC 3810), NDP (RFC 4861), SSDP, SRT (Caller & Listener)

Regulatory

- CE:
  - IEC 62368-1: 2018
  - EN55032:2015
  - EN55035:2017
  - EN61000-3-2: 2019
  - EN61000-3-3: 2013 +A1: 2019
- UL/CSA:
  - UL62368-1:2019
  - CSA C22.2 No. 62368-1:2019
- FCC:
  - 47CFR:2011 Part 15, Sub Part B
  - ANSI C63-4:2014
- Australia/New Zealand:
  - AS/NZS 62368:2018

Physical Format

- Modular hot-swap blade
  - c1101 Chassis (8 tuners)
  - c1103 Chassis (up to 24 tuners)
  - c1210 Chassis (up to 80 tuners)

Environment

- Operating Temperature: 0°C ~ 40°C (32°F ~ 104°F)
- Operating Relative Humidity: 10% ~ 90% (non-condensing)

Dimensions

- L: 275mm x W: 130mm x H: 40mm; weight 0.55kg

Power

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

MTBF

- Calculated to MIL-HDBK-217F, Notice 2: 43540 hours (5 years).

In the Box

- g4548-us, octa ATSC/ClearQAM RF Gateway
- Product Safety Brochure (hard copy)

Ordering Information (P/N)

- 18524 - g4548-us - 8 tuner ATSC/QAM
- 18397 - e38xx/g45xx - Licence – SRT
- 18956 - e38xx/g45xx - Licence – AES
- 19017 - g45xx - Licence – 5x IP input