g4515 RF Gateway

Dual DVB-S/S2, dual DVB-CI with content protection

The g4515 RF Gateway receives 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 encryption, the g4515 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 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
- Content protection
- Streaming output up to 500Mbps free to air or 100Mbps+ encrypted

Channel Management

- DVB-S2 (ETSI EN 302 307 Broadcast services)
- 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

Features & Benefits

- Two DVB-S/S2 RF tuners per blade for free-to-air TV or radio channels
- Two DVB-CI CA slots for scrambled TV or radio channels
- Any stream codec and resolution support
- Built-in content protection
- Advanced filtering to create duplicate channels (e.g. language specific), control bandwidth or provide data services such as EPG or MHEG data
- 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

Management

- Configurable using management tools:
  - Admin level management using Avedia Server Site Manager
  - HTTP/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

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

Network

- Linux dual IPv4/IPv6 stack
- DHCP/DHCPv6 or Static IP addressing
- VLAN support for Admin and Streaming network segregation
- Two IEEE 802.3u 10/100/1000Mbps MDIX Ethernet interfaces
- Ethernet redundancy - automatic switching to secondary Ethernet if network failure occurs (c1210 Chassis required)

System

- Linux-based

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), 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 (2 inputs)
  - c1103 Chassis (up to 6 inputs)
  - c1210 Chassis (up to 20 inputs)

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: 14W Typical, 20W Maximum

MTBF

- Calculated to MIL-HDBK-217F, Notice 2: 47089 hours (5.38 years)

In the Box

- g4515 RF Gateway, configured as 18516 or 18517 (See Ordering Information)
- Product Safety Brochure (hard copy)

Ordering Information (P/N)

- 18516 - g4515 RF Gateway - 2 tuner DVB-S2 & S, 2 DVB-CI and Samsung LYNK DRM (Interoperable with Samsung LYNK REACH servers)
- 18517 - g4515 RF Gateway - 2 tuner DVB-S2 & S, 2 DVB-CI and AES encryptor
- 18397 - e38xx/g45xx - License – SRT
- 18956 - e38xx/g45xx - License – AES
- 19017 - g45xx - License – 5x IP input
- 19186 - g45xx - License – 10x IP input