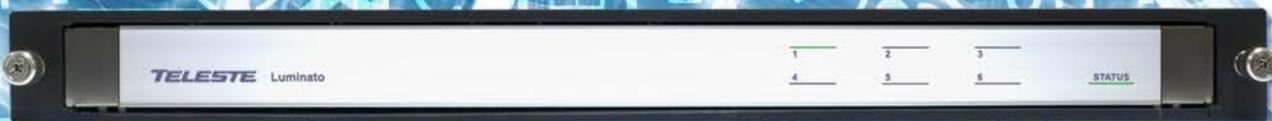


# Headend platform for Cable TV, IPTV and OTT networks

Teleste Luminato is a high density modular headend platform for acquiring, processing and ingesting live video.



## Teleste Luminato

Teleste Luminato headend platform is designed for live content processing. It receives the content from various sources and descrambles and re-organises this content into operators' network for CATV, OTT and/or IPTV delivery. It is trusted by cable TV operators and Telco's of varying sizes and feature demands. One thing is common though; they all appreciate its unparalleled reliability and ease of use.

### Modularity enables effectiveness

The chassis has been divided into six processing module slots. The module slots can be equipped with any combination of available Luminato receivers and output modules, depending on the application requirements. All modules can be hot-swapped and auto-configured, minimising service outage. Due to an internal switch, the need for cabling is minimised, resulting in simple and cost-effective installation.

The chassis has two Gigabit Ethernet interfaces with electrical or optical SFP modules for IP payload traffic. Both MPEG-2 and MPEG-4 with SD and HD are supported, suitable for IP centric Cable TV, IPTV and OTT networks.

### Receive content from various sources

Teleste Luminato receivers provide a best-of-breed receiving platform for operators. The receivers enable a flexible selection of free-to-air and scrambled services from DVB-S/S2, DVB-T/T2, DVB-ASI, DVB-C or IP sources, which can be adjusted to the operator's service line-up with the built-in advanced transport stream-processing capabilities.

Satellite and terrestrial receivers are available as quad-receiver models or dual-receiver models with DVB descrambling. All Luminato module slots furnished with quad-receivers enable having up to 24 receivers in one RU chassis. As one receiver can process multiple services per receiver, the amount of received services can be vast. The optional descrambling uses DVB Common Interface modules, flexibly supporting a large variety of Conditional Access Systems.

### Content ingestion in several formats

Luminato output modules are available for DVB-ASI, COFDM and QAM and they enable flexible multiplexing of SPTS and MPTS video services as well as PSI/SI table streams. Luminato comes with two integrated IP ports which means saving space and cost as a separate module is not needed.

The output modules support selection of free-to-air and scrambled services from IP stream sources, which can be adjusted to the operator's service line-up with the built-in advanced transport stream-processing capabilities. All the modules support Standard Definition and High Definition video in MPEG-2 and MPEG-4 AVC video formats and numerous audio formats.

### Keep your stream lean

It is essential to be able to modify components in incoming and outgoing transport streams. Received services may include several unnecessary languages or even harmful data like unwanted set-top box software updates – all of them stealing bandwidth and endangering a quality subscriber experience.

Luminato comes with built-in advanced transport stream processing capabilities. It can filter the unwanted data and allow tidying of received and outgoing services from any unwanted components. This enables great savings in bandwidth and improves service quality.

### Consumer level usability, yet access to all the fitnesses

The intuitive user interface makes management of Luminato effortless – everything is visible in a single graphical display, and administrators can add new services simply by drag-and-drop. This eliminates a lot of the manual configuration work and provides an easily understandable view on the network. Services can be set up within a few minutes, and yet there is access to all DVB fitnesses. Luminato also provides a simple but effective command line interface (CLI) for those appreciating extreme simplicity.

- Realistic view to module composition
- Drag and drop services with multiple selection
- Simple and intuitive navigation
- Device status at single glance
- Playlist view to all available channels
- Search available for easy finding of all services
- Monitoring with any PC including tablet computers

### Quality is not a coincidence

We consider high quality to be one of the key assets of the Luminato platform. The cost of a non-functioning device is high and therefore we have made a special effort to make sure these situations can be avoided.

Over the years, Luminato has proven to be one of the most reliable headend platforms on the market. There are thousands of devices operational around the world and serving subscribers with tens of thousands of services around the clock. Yet, the failure rate has proven to be lower than 0,3%.

**Hot-swap for all modules**  
• Configurations copied and transferred automatically

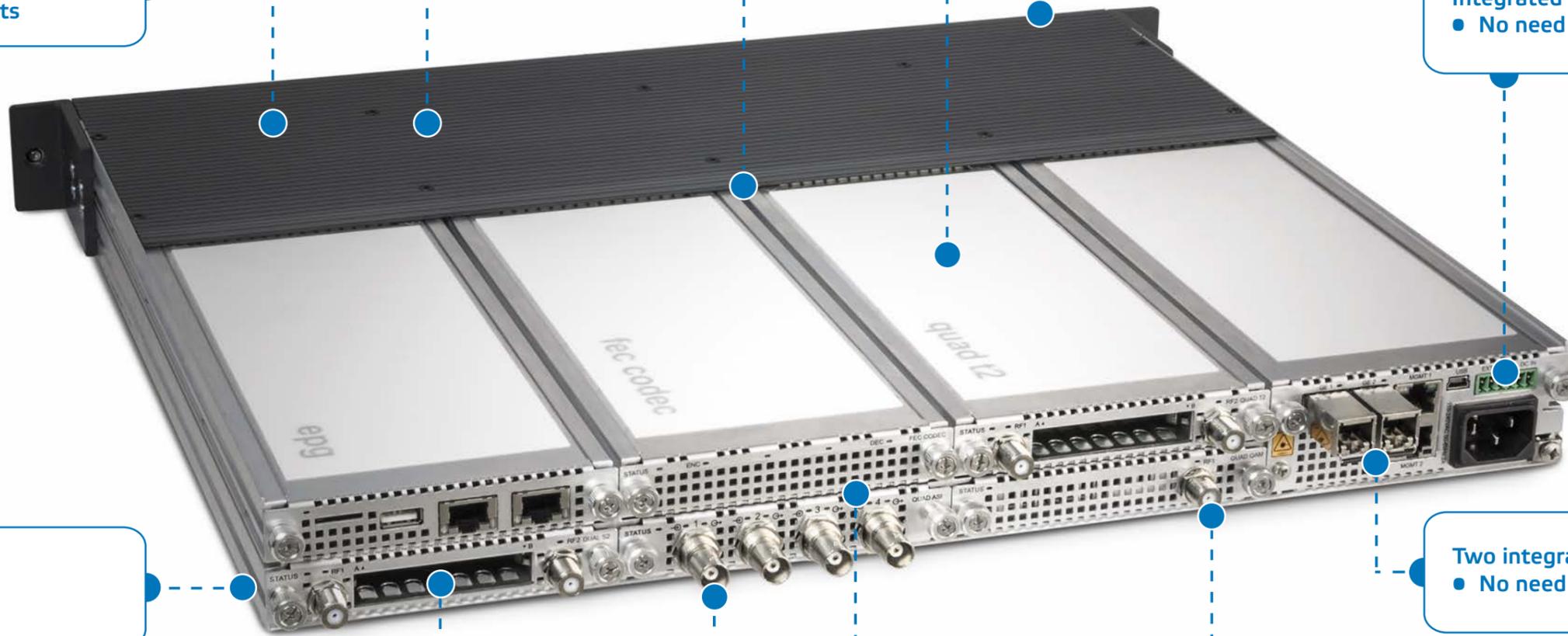
**Internal switch**  
• Minimized need for cabling

**Advanced stream processing**  
• Save bandwidth by filtering unwanted components

**Inbuilt scrambling**  
• No need for cabling

**High quality fans**  
• Automatically adjusting and hot-swappable fans with remote monitoring

**Integrated 1+1 redundancy**  
• No need for external equipment



**Demultiplexing**  
• MPTS to SPTS

**Multiservice descrambling**  
• One CI-module descrambles multiple services

**High density input**  
• Up to 24 receivers in 1 RU

**Two integrated GigE ports**  
• No need for a separate module

**High density output**  
• Up to 24 multiplexes in 1 RU

**Future proof**  
• Supporting upcoming satellite transponders with up to 45 Msymb/s

## Embrace reliability

The basis for solid functionality is created early, on a drawing board. There are choices to be made and all of them can affect reliability. Here's a list of a few Luminato features guaranteeing a high level of reliability:

- Hot swappable modules with automatic copying of configuration
- Unobstructed air flow by four hot swappable, actively controlled and automatically adjustable fans
- One platform can include two PSU's or connect to an external PSU serving several platforms
- 1+1 platform redundancy with automatic and fast switch over between primary and secondary platforms
- SID follow-up
- Stream redundancy with configurable triggers and automatic recovery
- Service priority for ensuring priority service pass-through in case of overbooking
- Monitoring of descrambling and automatic CA-module refreshment/rebooting

## Customer testimonials

[MTS – the leading telecommunications provider in Russia and the CIS:](#)

*"After a bidding competition and careful evaluation, we decided to choose Teleste Luminato to empower our nationwide headend network in Russia. After a couple years of operation, we are very pleased with our choice as Teleste Luminato headends have required almost no maintenance at all. Teleste Luminato provides us with the most compact and flexible solution for delivering a premium-quality digital TV experience and surviving long into the future. Therefore, we felt comfortable to expand the Luminato based headend network to tens of new cities as a second phase of our project."*

[Quadriga – the hospitality industry's leading integrator of network applications and in-room entertainment systems:](#)

*"We have been using Teleste Luminato in hundreds of hotel TV headend installations worldwide since 2008. Luminato makes a perfect match with our demands as it is small in size, requires minimal management due to automated features, makes barely any noise and doesn't require any special arrangements for cooling. It is simply very easy to install and extremely reliable in operation. Our engineers have given it a nickname "install'n'forget" – that tells of their opinion about the ease of usage and the service reliability."*

[Numericable – the leading cable TV operator in France:](#)

*"In the first place, we chose Teleste Luminato due to its modularity and density. By using Luminato, we needed only one device per headend to receive TV services from a backbone as IP, locally as DVB-T and ingest services to our network in required formats. Tested and proofed technology together with top-class usability reflects to us as simple operability. Luminato redundancy features and ease of use were considered outstanding as well, all resulting in high reliability and cost savings which we appreciate."*



## Teleste Luminato chassis specifications

<b>Chassis</b>	
Mounting	19" rack mountable, 1RU Installation rails for easy installation
Dimension (H x W x D)	1U x 19" x 385 mm
Operating voltage	100-230 VAC 50/60 Hz, 48 VDC
Power consumption	Max 120 W / fully occupied chassis
Operating temperature	-10...55 °C ambient
Relative humidity	Up to 90% (non-condensing)
Cooling	Replaceable fans
<b>Management interfaces</b>	
Two 10/100 BaseTX	For CAS and NMS
USB	For initial setup
<b>Stream interfaces</b>	
Two gigabit Ethernet ports	Supports electrical and optical SFP modules
<b>Management and monitoring</b>	
Web user interface	
CLI (telnet / ssh, USB-serial)	
SNMP monitoring	
TFTP file transfer	
<b>Interface modules</b>	
6 slots for hot swappable processing modules	