

IP multiplexer module for Luminato platform

The IP multiplexer module enables flexible multiplexing of SPTS and MPTS video services and also PSI/SI table streams. High quality multiplexing module is ideal for an IP headend to create MPTS at the main headend for sending through IP network to remote headends.



Versatile functionality

Luminato IP multiplexer enables flexible multiplexing of SPTS and MPTS video services and also PSI/SI table streams. The multiplexer is ideal for an IP centric headend to create MPTS at the main headend and send them through to IP network to remote headends.

The Luminato IP multiplexer module 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. The Luminato IP multiplexer module support Standard Definition, High Definition and 3D video in MPEG-2 and MPEG-4 AVC video formats and numerous audio formats.

Effective flexibility

Luminato IP multiplexer module is fully compatible with the high-performance Luminato chassis, where it can be fitted freely to any of the six module slots. In accordance with the Luminato system architecture, the video processing is performed on the IP multiplexer modules, which enables low-cost applications even with partially equipped chassis, while having the performance scalability to fully equipped chassis.

Embedded content protection

IP multiplexer module has the optional capability to do DVB Common Scrambling Algorithm and AES content protection. The embedded scrambling doesn't require any additional hardware and the user can freely select which services will be scrambled. The component level scrambling is also supported to allow only video and

audio scrambling and leave other streams untouched to avoid descrambling challenges for bursty data in set-top box.

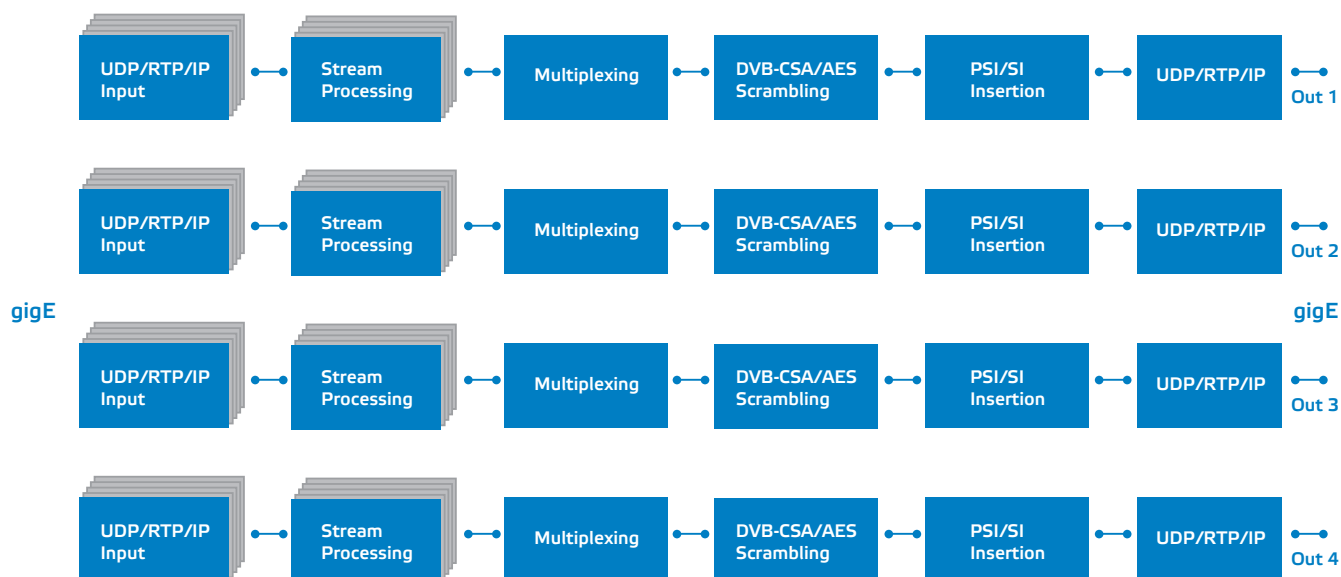
Efficiency and reliability

With the advanced transport stream processing, operator can select the services and components which are relevant to his network. The Luminato will follow-up any changes on the stream to automatically readjust the processing to provide uninterrupted service. This will allow the operator to efficiently manage network capacity usage.

The available tools provide high degree of automated features to minimise the cost of system set-up and operation, and avoiding downtime due to changes in the received services.

Features

- DVB TS over UDP/IP or RTP/UDP/IP reception
- IP address/UDP port selector for input streams
- Network dejittering
- Support CBR and VBR TS
- Advanced transport stream processing
- Supports SPTS and MPTS multiplexing
- PCR processing
- Automatic PSI/SI table generation
- Custom PSI/SI table creation and streaming
- Dual port streaming
- MPEG transport stream over UDP/IP and RTP/UDP/IP streaming
- MPTS passthrough
- Multiplex IP streaming (VBR or CBR)
- DVB CSA and AES content protection



Technical specifications

Parameter	Specification	Note	Parameter	Specification	Note
IP inputs			General		
Frame formats	UDP/IP, RTP/UDP/IP		Power consumption	6.5 W	
TS packets per UDP frame	1...7		Supply voltages	24 V	
Max inputs streams per module	120		Connectors	BNC 75 ohm	
Dejittering buffersize	200 ms		Dimensions (h x w x d) *	20 x 109 x 253 mm	
Multiplexers			Weight	0.3 kg	
Number of multiplexer per module	4		Enclosure classification	IP21	
Max input services per multiplexer	120		Operating temperature range	-10...+55 °C	
Max input services per module	120		Operating temperature range	-30...+70 °C	
Max components per service	32		Specification is met	0...+45 °C	
DVB Common Scrambling Algorithm and AES Content Protection			* Dimensions excluding connectors and locking screws		
Max scrambled services per module	120				
IP streamer output					
Framing format	UDP/IP, RTP/UDP/IP				
Traffic type	unicast or multicast				
TS format	VBR, CBR				
Max TS speed per streamer	210 Mbits/s	1 multiplexer in use			
	194 Mbits/s	2 multiplexers in use			
	128 Mbits/s	3 multiplexers in use			
	96 Mbits/s	4 multiplexers in use			