ISDB-T output multiplexer for Luminato platform

QUAD ISDB-T MULTIPLEXER

The quad ISDB-T module enables flexible multiplexing of SPTS and MPTS video services as well as PSI/SI table streams. High quality ISDB-T modulation with agile up conversion provides easy adaptation to ISDB-T delivery over HFC network.

Versatile functionality

The Teleste Luminato quad ISDB-T module provides an advanced ISDB-T platform for content distribution over cable networks. The ISDB-T module enables flexible multiplexing of SPTS and MPTS video services and also PSI/SI table streams. High quality ISDB-T modulation with agile up conversion provides easy adaptation to ISDB-T delivery over HFC network.
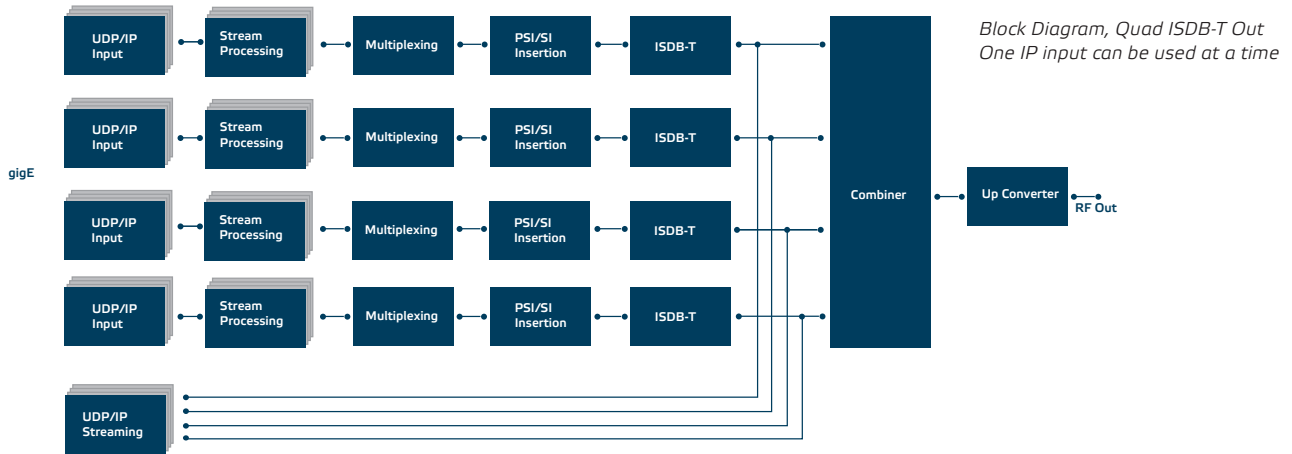
The Luminato quad ISDB-T multiplexers support selection of free-to-air and scrambled services from IP stream sources, which can be adjusted to the operator's service line-up with the built-in advanced transport stream processing capabilities. The Luminato quad ISDB-T module supports Standard Definition, High Definition and 3D video in MPEG-2 and MPEG-4 AVC and HEVC video formats and numerous audio formats.

Effective flexibility

Luminato quad ISDB-T 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 quad ISDB-T module, which enables low-cost applications even with partially equipped chassis, while having the performance scalability to fully equipped chassis.

Complete cable TV headend in 1 RU

As one or more quad ISDB-T modules can be included in 1 RU Luminato platform with Luminato DVB-S, DVB-S2, DVB-ASI, DVB-T, DVB-T2, DVB-C & ISDB-T receivers and QAM modules, together they can form a complete cable TV headend. This provides an effective way for receiving services from multiple sources as well as ingesting them to network in various formats.

Block Diagram, Quad ISDB-T Out
One IP input can be used at a time

Features

- DVB TS over UDP/IP or RTP/UDP/IP reception
- IP address / UDP port selector for input streams
- Network dejittering and
- Advanced transport stream processing
- PCR processing and multiplexing
- Automatic PSI/SI table generation

- Custom PSI/SI creation and streaming
- High quality ISDB-T modulation
- Agile upconversion
- Multiplex IP streaming (VBR or CBR)
- MPEG transport stream over UDP/IP and RTP/UDP/IP streaming

IP INPUTS			ISDB-T/ISDB-TB OUTPUT		
Frame formats	UDP/IP & RTP/UDP/IP	1...7 TS packets/ frame	Output return loss	>14 dB (active channel)	
Max inputs streams/module	120	SPTS/MPTS		>12 dB (adjacent channels)	
Dejittering buffersize	200 ms	per multiplex		>10 dB (act. ch 862...1000 MHz)	
Max input payload	800 Mbps		Output Level	102 … 112 dBmV	4 adj. chs
Multicast support	IGMPv2			104 … 114 dBmV	3 adj. chs
SAP reception	RFC2974			106 … 116 dBmV	2 adj. chs
Transport stream	VBR, CBR			110 … 120 dBmV	one ch
IP OUTPUT			Output level step size	0.2 dB	
Frame formats	UDP/IP & RTP/UDP/IP	for test purposes	Output center frequency	85 … 999 MHz	
USER INTERFACE			Output channel bandwidth	6, 7, 8 MHz	
Intuitive WEB UI	via IP		Output frequency accuracy	+/- 30 kHz	
CLI	via USB or IP		Output frequency step size	1 kHz	
API	for system integration		Out of band noise (1)	< -58.5 dBc (1st adjacent ch)	
MULTIPLEXERS				< -62 dBc, -64 dBc, 66 dBc (2nd, 3rd, … 12th adjacent chs)	
Number of multiplexer	4			< -70 dBc (other channels)	
Max input service/multiplexer	64		Harmonics	< -63 dBc	
Max components per service	32		**GENERAL**		
Output speed	Modulator settings		Power consumption	15 W	
PCR correction			Supply voltages	24 V	
PID filtering/remapping			Connectors, RF out	F	
PSI/SI table generation			Dimensions (h x w x d) (2)	20 mm x 109 mm x 253 mm	
ISDB-T/ISDB-TB OUTPUT			Weight	0.4 kg	
Transmission mode	Mode 1		Enclosure classification	IP21	
Transmission layer	Single layer		Operating temp. range	-10...+55 ºC	
Transmission Guard Interval	1/4, 1/8, 1/16, 1/32		Storage temp. range	-30...+70 ºC	
FEC	1/2, 2/3, 3/4, 5/6, 7/8		Specification is met	0…+45 ºC	
Number of segments	13		**NOTES**		
Impedance	75 ohm		1) Values for quad channels active. Excluding harmonics (8 MHz channel) 2) Dimensions excluding connectors and locking screws		

TELESTE CORPORATION
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