ISDB-T OFDM output multiplexer for Luminato platform

ISDB-T OFDM MULTIPLEXER

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

Versatility in function

The Teleste Luminato ISDB-T OFDM module serves as an advanced and compact ISDB-T content distribution module. The OFDM module facilitates the flexible multiplexing of SPTS and MPTS video services, along with PSI/SI table streams. Its high-quality OFDM modulation, featuring agile up conversion, ensures easy adaptation to ISDB-T delivery over HFC network.
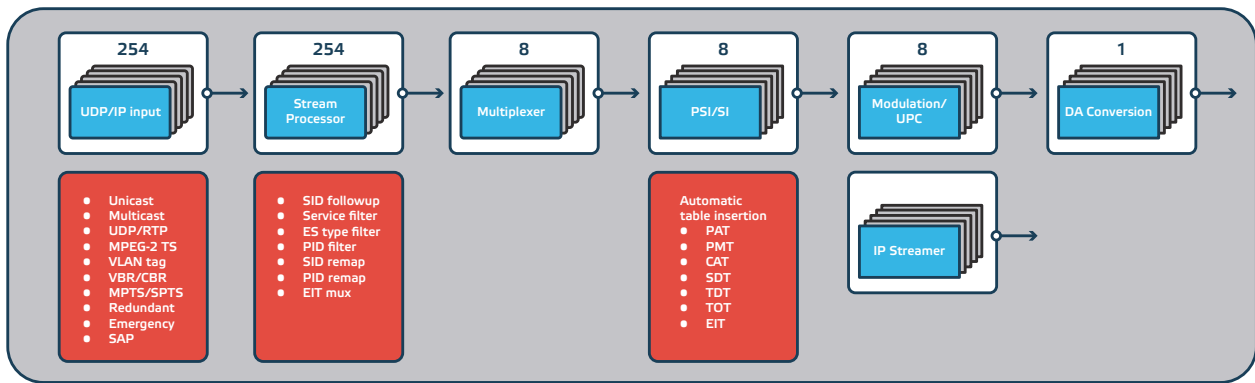
The Luminato OFDM multiplexers support a range of free-to-air and scrambled services from IP stream sources. These services can be easily adjusted to the operator's service line-up, thanks to the built-in advanced transport stream processing capabilities. The Luminato ISDB-T OFDM module supports Standard Definition, High Definition and Ultra High Defination in MPEG-2 and MPEG-4 AVC, as well as HEVC video formats and numerous audio formats.

Cost-effective operations

The Luminato ISDB-T OFDM module seamlessly integrates with the high-performance Luminato chassis. This integration allows for the module to be fitted freely into any of the six module slots. Within the Luminato system architecture, the video processing is performed on the ISDB-T module, providing cost-effective solutions for partially equipped chassis while maintaining performance scalability for fully equipped chassis.

Efficient Cable TV Headends with Luminato

Incorporating one or more ISDB-T OFDM modules into the 1 RU Teleste Luminato platform, alongside DVB-S, DVB-S2, DVB-ASI, DVB-T, DVB-T2, DVB-C & ISDB-T receivers and QAM modules, results in a comprehensive cable TV headend. This integrated setup offers an efficient means of receiving services from multiple sources and ingesting them into the network in various formats.

Block Diagram, Teleste Luminato LDM-I module provides a compact ISDB-T modulator platform for Cable TV operators

IP INPUTS			ISDB-TB RF OUTPUT GENERAL	
Frame formats	UDP/IP (1…7 TS packets/frame)		**Standards**	ABNT NBR 15601, DOCSIS CM-SP-DRFI
Max inputs streams/module	256		**Transmission modes**	Mode 1 (2k)
Dejittering buffer size	120 ms		**Transmission layer**	Single layer
Max input bitrate	5 Gbps		**Number of segments**	13
STREAM PROCESSORS			**Guard interval**	1/32
SID followup			**QAM constellations**	QAM16, QAM64
Filters:	Service		**FEC**	1/2, 2/3, 3/4, 5/6, 7/8
	ES type		**Channel bandwidth**	6, 7, 8 MHz
	PID		**Impedance**	75 ohm
Remaps:	SID		**Output return loss**	>14 dB, on active channel
	PID			>12 dB, out of act. ch 81…862 MHz
EIT mux				>10 dB, out of act. ch 862…1006 MHz
MULTIPLEXERS			**Max output level**	120 dBµV, 1 channel
Number of multiplexers	8 *			116/114/112/11/110 dBµV, 2/3/4/5/6 chs
Max output services/multiplexer	8			109 dBµV, 7… 8 chs
Max components per service	32		**Output level adjustment**	20 dB, level step size 0.2 dB
Output speed	Based on modulator settings		**Output level accuracy**	+/- 2 dB
IP STREAMER OUTPUT			**Output center frequency**	50…1000 MHz
Protocol format	RTP UDP/IP		**Output freq. accuracy**	+/- 30 kHz
Traffic type	unicast or multicast		**Output freq. step size**	50 kHz
TS packets per UDP frame	1…7		**Out of band noise**	<-60dBc, 1st adjacent channel
TS packet speed/streamer	up to 30.98 Mb/s, equals to RF bitrate			<-64dBc, 2nd adjacent channel
ETHERNET INTERFACE				<-70dBc, other channels
Standard	1000BaseT, RJ-45		**Phase noise**	-33dBc (1 - 10) kHz, -51dBc (10 - 50) kHz
			Harmonics	<-63dBc
			MER	>42dB
GENERAL				
Power consumption	25 W		**Weight**	0.5 kg
Supply voltages	24 V		**Enclosure classification**	IP21
Connectors	F 75 ohm, RJ45		**Operating temp. range**	0…+45 ºC
Dimensions (h x w x d)	20 mm x 109 mm x 253 mm **		**Storage temp. range**	-30…+70 ºC

NOTES
* Actual number depends on mode and license
** Dimensions excluding connectors and locking screws

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