

TELESTE



Luminato DVB-T/T2 OFDM modulator/multiplexer for the Luminato 4X4 platform

HIGH QUALITY OFDM MODULATION

Teleste Luminato DVB-T/T2 module performs OFDM modulation with optional multiplexing of SPTS and MPTS video services and PSI/SI table streams in a compact casing. Its premium class OFDM output is complemented with agile up conversion providing efficient DVB-T and T2 delivery over cable television networks. Up to 12 OFDM channels consisting of up to 12 multiplexes can be independently inserted on ranges between 50 MHz...900 MHz or 100 MHz...1000 MHz.

Effective flexibility

The module is fully compatible with the Luminato 4X4 and 4H chassis, where it can be fitted into any of the six module slots. In accordance with the Luminato system architecture, the transport stream video processing can be performed in the same module. This enables low-cost applications with a partially equipped chassis while performance can be scaled up by adding modules incrementally.

Versatile functionality

Luminato DVB-T/T2 module supports 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 module is compatible with SD, HD and UHD video standards in the MPEG-2, MPEG-4 AVC and HEVC video formats and numerous audio formats.

Advanced transport stream processing

High service availability is secured by dedicated dejittering and PCR processing capacity for every input stream, and by an advanced transport stream processor that follows changes in the incoming streams and reflects needed changes to the output streams. Program Map Tables (PMT) are also updated automatically when the changes require it. The advanced transport stream processor uses Service ID of the incoming streams as the basis for the follow-up.

Any components belonging to a particular Service ID can be followed up dynamically, based on multiple criteria: component type (e.g. video, audio, teletext), stream ID (component tag), PID value, and language priority lists (applicable to audio, teletext and subtitle streams). To generate consistent and correct channel line-up of the outgoing streams, service IDs can be remapped and renamed. Several PID remapping options are available to avoid PID conflicts at the remultiplexed output.

OFDM RF OUTPUT				
Standard	ETSI EN 300 744 (DVB-T)	Max output level	120 dBµV	1 ch
	ETSI EN 302 755 (DVB-T2)		116 dBµV	2 chs
	Docsis CM-SP-DRFI		114 dBµV	3 chs
Transmission modes	2k, 8k (DVB-T), 16k (DVB-T2)		112 dBµV	4 chs
Guard Interval	1/32(DVB-T), 1/128 (DVB-T2)		111 dBµV	5 chs
QAM constellations	QAM16, QAM64 (DVB-T)		110 dBµV	6 chs
	QAM64, QAM256 (DVB-T2)		109 dBµV	7...8 chs
FEC	1/2 , 2/3, 3/4, 5/6, 7/8 (DVB-T)		108 dBµV	9..10 chs
	3/4, 4/5, 5/6 (DVB-T2)		107 dBµV	11..12 chs
Channel bandwidth	5, 6, 7, 8 MHz (DVB-T/T2)	Out of band noise	<-60 dBc (1st adjacent ch.)	
Output return loss	>14 dB (on active channel)		<-64 dBc (2nd adjacent ch.)	
	>12 dB (out of act. ch 81...862 MHz)		<-70 dBc (3rd adjacent ch.)	
	>12 dB (out of act. ch 862...1006 MHz)		<-70 dBc (other chs.)	
Output level adjustment	20 dB	Phase noise	-33 dBc 1 kHz - 10 kHz	
Output level accuracy	+/- 2 dB		-51 dBc 10 kHz - 50 kHz	
Output lower step size	0.2 dB	Harmonics	<-63 dBc	
Output center frequency	50...1000 MHz	MER	>42 dB	
Output frequency accuracy	+/- 30 kHz	IP STREAMER OUTPUT OF MULTIPLEXER		
Output frequency step size	50 kHz	Protocol format	RTP UDP/IP	
		Traffic type	unicast or multicast	
		TS packets per UDP frame	1...7	
		TS packet speed/streamer	up to 47.4 Mb/s	
GENERAL				
		Power consumption	25 W	
		Supply voltage	24 V	
		Connectors	F 75 Ω, RJ45	
		Dimensions (h x w x d), 2)	(20 x 109 x 253) mm	
		Weight	0,4 kg	
		Enclosure classification	IP21	
		Operating temperature range	0...+45 °C	
		Storage temperature range	-30...+70 °C	
ETHERNET INTERFACE				
Standard	1000BaseT	RJ45	Notes	
			1) Actual number depends on mode and license	
			2) Dimensions excluding connectors and locking screws	



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P4P_Luminato 4X4 DVT_T2 module_0922

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