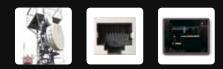# ELBER
WIRELESS INSIGHT

ESE-01b DVB-S/S2 Professional IRD

ESE-01b R2 2k14

DESCRIPTION

The ESE-01b is the evolution of ESE-01, designed for the high-end TV and radio distribution market, where quality and reliability are key features. The development of digital satellite contribution networks and the need to connect a large number of sites require a cheap but still reliable and performing satellite receiver with integrated decoder; the Elber IRD (Integrated Receiver Decoder) ESE-01b offers professional performances at an excellent quality/price ratio. The ESE-01b operates as receiver, decoder or both; as receiver, it demodulates any DVB-S or DVB-S2 signal with no limitations in terms of modulation scheme and configuration (single/multistream), giving ASI and TSoIP outputs. As decoder, it accepts the demodulated signal, 2 x ASI or TSoIP inputs, decoding one service from the TS. The basic version has been optimized for radio applications, giving just 1 stereo pair (in analog and AES-EBU format) with a CVBS video output. Advanced version is for television applications, with HD-SDI dual outputs and additional stereo pair. Video decoder accepts MPEG-2 and H.264 4:2:0 signals, HD and SD, while audio decoding formats supported are MPEG-1 LI/II, MPEG-2 LII, MP3, MPEG-4 AAC-LC or MPEG4 AACplus; BISS 0/1/E descrambling is also supported.

The device can be easily managed through the local user interface (a modern touchscreen display) or remotely through the web interface and SNMP. The ESE-01b is very compact and lightweight and can be equipped with both AC and DC (10-13VDC) input power.

FEATURES

- Self-contained compact solution (1U Rack 19")

- DVB-S/S2 Receiver Single stream and Multi stream

- L-band input

- Optional ASI and TSoIP inputs and outputs

- Basic version optimized for radio contribution over satellite

- Advanced features with HD-SDI outputs

- BISS 0/1/E optional

- TFT front panel control

- Embedded Linux OS

- AC and DC inputs

- WEB interface, SNMP v2 and GPIO

SPECIFICATIONS

Inputs

Standards:	ETSI EN 300 421 (DVB-S)
	ETSI EN 302 307 (DVB-S2)
Input connector:	F-type connector 75 ohm
RF Input:	L-band with LNB control and loop-through output
Frequency range:	950-2150 MHz
RF input level:	-10 to -87 dBm
Symbol Rate:	1-45 Msymb/s
FEC:	all (auto)
Constellation:	QPSK, 8PSK, 16APSK, 32APSK
DVB-S2 support:	
Mode:	CCM, VCM, ACM, Normal/Short FEC frames
BB header processing:	ISSY short/long, NPD
Mode Adaptation(*):	Multistream reception with ISI field
PLS:	Physical Layer Scrambling support ('n' sequence number)
Baseband*:	
Inputs:	2 x DVB-ASI on BNC(f) connector, 75 Ohm
	1 x TSoIP on RJ-45 connector
Outputs:	2 x DVB-ASI on BNC(f) connector, 75 Ohm
	1 x TSoIP on RJ-45 connector

Video

Video Decoding:	MPEG-2 HD/SD 4:2:0
	H.264 HD/SD 4:2:0
Video formats:	PAL, NTSC, SECAM
Analog video interfaces:	1 composite on BNC connector (HD downscaling)
Digital video interfaces(*):	2 x HD-SDI on BNC connector

Audio

Audio Decoding:	MPEG-1 layer I/II, MP3, MPEG-2 layer II, MPEG-4 AAC-LC, MPEG-4 AAC Plus
Analog interfaces:	2 x analog balanced on XLR connector
	2 x analog balanced on DB25 connector(*)
Digital audio:	2 x AES/EBU-SPDIF on XLR connector
	2 x AES/EBU-SPDIF on DB25 connector(*)
	HD-SDI embedded (*)

Control

Front panel (TFT touchscreen display)
Web browser (embedded http server, no additional software needed)
SNMP v2

Electrical

Supply:	100-240 V~ 50/60 Hz, IEC 320
	10 ÷ 13 V DC, 2 pins plug
Consumption:	12W (basic)
	16W (advanced)

Mechanical

Chassis:	1U Rack 19"	
Dimensions:		
	Width	482.5 mm
	Height	43.65 mm
	Depth	220 mm
Weight:	2.5 Kg	

Environmental

Operative Temperature Range:	-10 ÷ 55°C
Relative humidity:	0 - 95% non condensing

(*) options, see ORDERING INFO or contact sales@elber.it

ORDERING INFO:

Code	CVBS	Audio Analog	Audio Digital	DVB-ASI	TSoIP in	TSoIP out	Multistream	HD/SD-SDI	2nd audio channel
ESE-01-BA	v	v							
ESE-01-BB	v	v	v						
ESE-01-BC	v	v	v				v		
ESE-01-BD	v	v	v	v			v		
ESE-01-BE	v	v	v	v	v		v		
ESE-01-BF	v	v	v	v	v	v	v		
ESE-01-BG	v	v	v	v	v	v	v	v	v
ESE-01-BM	v	v	v	v	v	v	v		v

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