

SONIFEX

Manufacturers of Audio & Video
Products For Radio & TV Broadcasters

Redbox RB-VHEDD8
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Redbox - Video Embedders & De-embedders

RB-VHEDD8

3G/HD/SD-SDI Dolby® E Encoder & Embedder

The RB-VHEDD8 is a Dolby® E Encoder and Embedder. It encodes 8 channels of audio into two channels of an AES/EBU digital audio stream which is then embedded onto any of the available groups within each of the two video output paths. It is also transmitted on a BNC or D-type on the rear panel.

The audio inputs to the encoder can be selected to either come from the external audio inputs via the BNC or D-type connections on the rear panel or from the audio in the incoming SDI input. Similarly, the metadata input for the encoder can be selected to either come via the external 9-pin D-type on the rear panel or from metadata embedded into the vertical blanking area of the video input.

The unit is controlled locally through the front panel display but can be remote controlled via an ethernet connection using the Sonifex SCi software. The embedding channel routing is controlled using these methods also.

It has a triple rate SDI receiver with automatic input rate detection and equalisation along with two re-clocked and individually buffered SDI outputs. It supports the full range of 3G, HD and SD standards from NTSC and PAL up to 1080p 60Hz.

Each digital input channel has independent level control, which can be adjusted from -24dB through to +24dB in 0.5dB steps. The digital inputs and outputs can be selected to be either balanced or unbalanced AES/EBU specification, and can be connected through either BNC or D-type connectors. These I/O connections are paralleled, allowing one type to be used per input or output.

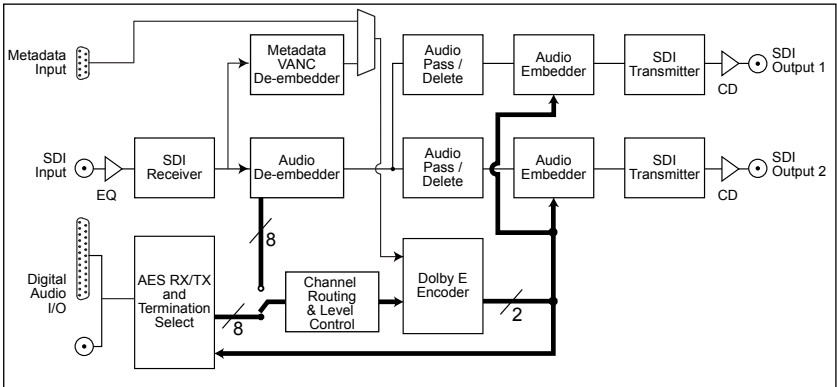
8 general purposes inputs and 8 outputs are available on a rear panel 25 way D-type socket whose function can be programmed using the menu, e.g. alarm outputs for loss of input or encoder errors.

RB-VHEDD8 Block Diagram



Audio Specification For RB-VHEDD8	
SDI Specification	
SDI Input:	1 x BNC, 3G/HD/SD-SDI
SDI Outputs:	2 x BNC, 3G/HD/SD-SDI, re-clocked
Impedance:	75Ω
Output Alignment:	<0.2UI (3G <0.3UI)
Jitter:	
Output Level:	800mV ±10%
Return Loss:	<15dB at 1500MHz
SDI Supported Standards:	270Mbps, SMPTE-259M-C (SD) 1.485 or 1.4835Gbps, SMPTE-292M (HD) 2.97 or 2.967Gbps, SMPTE-424M (3G), SMPTE-425M-A
Supported Video Formats:	525/59.94 (SMPTE-125M) 625/50 (ITU-R BT.656) 720p/23.98, 24, 25, 29.97, 30, 50, 59.94, 60 (SMPTE-296M) 1035i/59.94, 60 (SMPTE-260M) 1080i/50, 59.94, 60 (SMPTE-274M) 1080p/23.98, 24, 25, 50, 59.94, 60 (SMPTE-274M) 1080p5F/23.98, 24, 25, 29.97, 30 (RP-211) 1080i/50 (SMPTE-295M) 1080p/50 (SMPTE-295M)
Embedded Audio:	24-bit, 48kHz synchronous SMPTE-272M-C SMPTE-299M
Metadata:	SMPTE-2020M SMPTE-RDD06, 9-Pin D-type socket
Audio Specifications	
Output Sample Rate:	48kHz
Input Sample Rates:	CH1/2 & CH3/4: 32-192kHz CH5/6 & CH7/8: 32-48kHz
Input & Output Impedance:	75Ω/110Ω selectable

Signal Level (Un-terminated):	Unbalanced: 1Vp-p ±20% Balanced: 6.6Vp-p ±20%
Digital Audio I/O:	
Inputs:	8 x digital audio input channels via 4 x BNCs or 25 way D-type socket (AES3)
Outputs:	2 output channels via 1 x BNC or 25 way D-type socket (AES3)
Digital Audio Connectors:	5 x BNC 1 x 25-way D-type socket
LTC Input:	1 x BNC (not used)
Operational Control	
Display:	Vacuum fluorescent display
System Navigation:	Rotary selector with integral push-switch
Additional Conections	
Ethernet Port:	10/100Mbps, RJ-45
Remote Input/Output Port:	25-way 'D'-type socket
Power Supply:	Universal filtered IEC, continuously rated 85-264VAC @47-63Hz, fused
Fuse Rating:	Anti-surge fuse 1A 20 x 5mm
Physical Specifications	
Dimensions (Raw):	48cm (W) x 10.8cm (D*) x 4.2cm (H) 19" (W) x 4.3" (D*) x 1.7" (H) (1U)
Dimensions (Boxed):	59cm (W) x 27.5cm (D) x 11cm (H) 23.2" (W) x 10.8" (D) x 4.3" (H)
Weight:	Nett: 1.8kg Gross: 2.3kg Nett: 4.0lb Gross: 5.1lb
* Note that this product is deeper than standard Redboxes	
Equipment Type	
RB-VHEDD8	3G/HD/SD-SDI Dolby® E encoder & embedder
Accessories	
RB-RK3:	1U Rear panel rack kit for large Redboxes



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