

SONIFEX

RB-VHDDD8

3G/HD/SD-SDI De-Embedder Dolby® E & Dolby Digital Decoder &
Re-Embedder

Catalogue ²⁰¹⁶





RB-VHDDD8 3G/HD/SD-SDI De-Embedder Dolby® E & Dolby Digital Decoder & Re-Embedder



Category: 3G/HD/SD-SDI Video De-Embedders & Re-Embedders With Dolby Encode/Decode.

Product Function: De-embeds 16 channels from 1 x SDI stream, decodes any embedded Dolby E or D audio,

outputs audio to 12 channels and re-embeds to 2 x SDI streams.

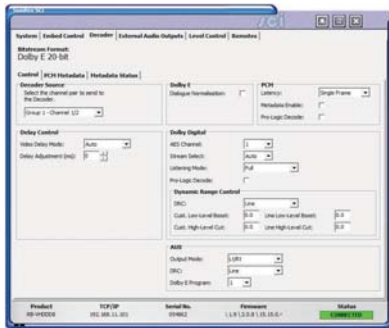
Typical Applications: To de-embed audio in Dolby E encoded format from an SDI stream and re-embed into 2 x SDI streams.

Features: 12 x balanced or unbalanced digital audio outputs, independent output level controls, 2 x independent SDI outputs, Dolby E bitstream output, 8 programmable GPIOs, metadata output, Ethernet or front panel control & configuration.

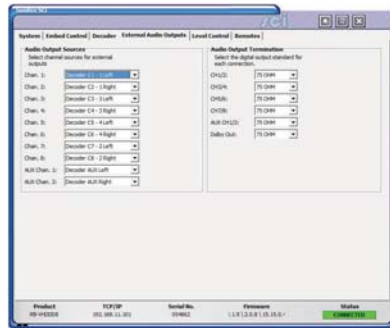
The RB-VHDDD8 is an SDI audio de-embedder and re-embedder with Dolby E & Dolby Digital Decoding capabilities. It de-embeds all 16 available audio inputs and decodes a selected Dolby E or Dolby Digital bitstream embedded in the SDI input. The outputs from the decoder and the de-embedder can then be re-embedded onto either of the two SDI outputs and also transmitted on BNCs or D-types. The encoded Dolby bitstream is also available via a dedicated output on the rear panel.

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

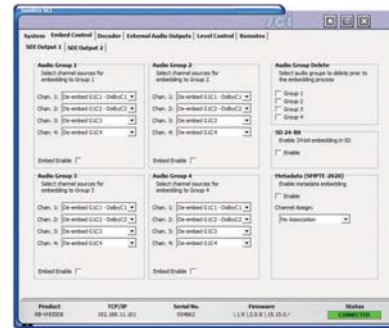
The decoder metadata output is transmitted using RS-485 via the external 9-pin D-type and can also be embedded into the vertical blanking space (SMPTE-2020) onto either of the two SDI outputs. The unit is controlled locally through the front panel display but can be remote controlled via an Ethernet



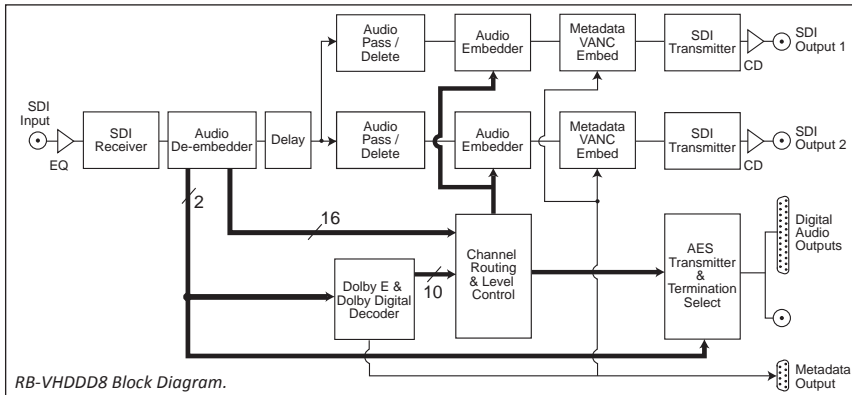
Sci Decoder Page.



Sci External Audio Outputs Page.



Sci Embed Control Page.



connection using the Sonifex Sci software, through which metadata can also be viewed.

The unit maintains lip-sync through the decode process by delaying the video, embedded audio and any other ancillary data to match the decoding latency. There is minor adjustment of this delay, to allow for errors up or down the processing chain.

Each digital output channel has independent level control which can be adjusted from -24dB through to +24dB in 0.5dB steps.

The digital audio output connections are transformer-coupled balanced line interfaces and can be configured to be either 75Ω (AES 3iD) or 110Ω (AES 3) output impedance through either a BNC or via the D-type connector. These output connections are paralleled, allowing one type to be used per output.

8 GPIs and 8 GPOs are available on a 25 way D-type socket whose function can be programmed using the menu, e.g. alarm outputs for loss of input or decoder errors.

Specification For RB-VHDDD8

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 Jitter:	<0.2UI (3G <0.3UI)
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)
1080pSF/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 and SMPTE-299M

Metadata: SMPTE-2020M SMPTE-RDD06, 9-Pin D-type

Delay Specification

Video Delay: 1 frame when frame rate <= 30 fps, 2 frames when frame rate > 30 fps.

Adjustment: ±10 ms.

Audio Specifications

Output Sample Rate: 48kHz
Output Impedance: 75Ω/110Ω selectable
Signal Level (Un-terminated): Unbalanced: 1Vp-p +/- 20%
Balanced: 6.4Vp-p +/- 20%
Digital Audio Outputs: 12 output channels via 6 x BNC or 25 way D-type socket (AES3)
Digital Audio Connectors: 6 x BNC
1x 25-way D-type socket

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 2A 20 x 5mm

Physical Specifications

Dimensions (Raw): 48cm (W) x 15.8cm (D*) x 4.2cm (H)
19" (W) x 6.2" (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-VHDDD8 3G/HD/SD-SDI Dolby® E & Dolby Digital decoder & de-embedder

Accessories

RB-RK3: 1U Rear panel rack kit for large Redboxes

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