

SONIFEX

RB-VHDA8

3G/HD/SD-SDI 1 Input, 8 Output Video Distribution Amplifier

Catalogue ²⁰¹⁶





RB-VHDA8 3G/HD/SD-SDI 1 Input, 8 Output Video Distribution Amplifier

The RB-VHDA8 is a high performance, reliable eight way digital video distribution amplifier for re-clocking and distributing a 3G, HD (high definition) or SD (standard definition) SDI source to eight outputs. The unit provides automatic input detection, re-clocking and cable equalisation of the input signal to 100/350 meters (HD/SD) of coax cable.

The full range of 3G, HD and SD standards are supported by the unit allowing PAL and NTSC signals up to 1080p 60Hz to be distributed.

Each output is individually buffered providing separately driven outputs for greater reliability.

As well as an AC power input, the unit also has a 12V DC input for use, for example, in outside broadcast vehicles. Both power inputs can be used to give a dual redundant power supply; whichever voltage is higher will be used.

Specification For RB-VHDA8

Audio Specification

Compatible Standards:	SMPTE-424M (3G) SMPTE-292M (HD-SDI) SMPTE-259M-AC ¹ (SD-SDI) SMPTE 344M ¹ DVB-ASI ² at 270Mb/s
-----------------------	---------------------------------------------------------------------------------------------------------------------------------------------

¹ Other rates will be passed without reclocking.

² Non inverted outputs only.

Impedance:	75Ω terminating
Equalisation:	Up to 100m of Belden 1694A at 1.485Gbps Up to 350m of Belden 1694A at 270 Mbps
Data Rates:	Fully supported: 143, 270, 1483.5, 1485, 2967 & 2970Mbps Passed but not reclocked: 177, 360 & 540Mbps
Reclocking & Equalisation:	Automatic
Resolution:	Automatic
Return Loss:	>15dB at 1500MHz
Output Jitter:	<0.2UI
Signal Level:	800mV ±10%
Front Panel Indicators	
Power LED:	Amber indicates power is present, Red indicates detection of valid incoming SDI signal

Rear Panel Connections

HD/SD-SDI Video Input:	1 x BNC (Unbalanced)
HD/SD-SDI Video Outputs:	8 x BNC (Unbalanced)
Power Supply: AC:	Filtered IEC, continuously rated 85-264VAC, 47-63Hz, fused, max 10W
Fuse Rating:	Anti-surge fuse 2A 20 x 5mm
DC:	12V 300mA max, DC supply, 2.5mm socket fused

Equipment Type

RB-VHDA8:	3G/HD/SD-SDI 1 input, 8 output video distribution amplifier
-----------	-------------------------------------------------------------

Physical Specification

Dimensions (Raw):	48cm (W) x 10.8cm (D) x 4.3cm (H) 19" (W) x 4.3" (D) x 1.7" (H) (1U)
Dimensions (Boxed):	58.5cm (W) x 22.5cm (D) x 7cm (H) 23" (W) x 8.9" (D) x 2.8" (H)
Weight :	Nett: 1.3kg Gross: 1.9kg Nett: 2.9lbs Gross: 4.2lbs

Accessories

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





3G, HD & SD-SDI Embedders & De-Embedders

Still in the familiar Redbox chassis offering rackmounting as standard and a universal AC power supply, these new video Redboxes use latest technology components to offer embedding and de-embedding for analogue and digital audio signals into and out of single link 3G, HD and SD-SDI video signals, respectively.

With simple front panel controls, standard BNC connectivity and remote operation on serial and ethernet ports, there are currently 6 products in the range:

- **RB-VHDMA8** De-Embedder, 8 Channel Analogue Outputs
- **RB-VHEMA8** Embedder, 8 Channel Analogue Inputs
- **RB-VHCMA4** Embedder & De-Embedder, 4 Channel Analogue I/O
- **RB-VHCMD16** Embedder & De-Embedder, 16 Channel Digital I/O
- **RB-VHEDD8** 3G/HD/SD-SDI De-Embedder, Dolby® E Encoder & Re-Embedder
- **RB-VHDDD8** 3G/HD/SD-SDI De-Embedder Dolby® E & Dolby Digital Decoder & Re-Embedder

Features of the 3G, HD & SD-SDI Embedders & De-Embedders

- Support all standards of single link 3G, HD and SD-SDI.
- Front panel control and remote Ethernet control.
- Two SDI outputs which can be configured independently.
- Input/output audio gain control, depending on unit.
- Analogue and digital audio I/O versions.
- AC power supply.
- 1U rackmount.

Common Specifications

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)
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)
Video Delay:	SD: 290 pixels / 22 us HD: 570 pixels / 8 us 3G: 570 pixels / 4 us
Embedded Audio:	48kHz, synchronous SMPTE-272M-ABC SMPTE-299M
Serial Port:	RS232, 9 way D-type
Ethernet Port:	10/100Mbps
Fuse Rating:	Anti-surge fuse 2A 20 x 5mm
Physical Specifications	
Dimensions (Raw):	48cm (W) x 15.8cm (D*) x 4.2cm (H) (1U) 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
Accessories	
RB-RK3:	1U Rear panel rack kit for large Redboxes

* Note that this product is deeper than standard Redboxes

SONIFEX

www.sonifex.co.uk

UK Office:

Sonifex Ltd

61 Station Road, Irthlingborough,

Northants, NN9 5QE, UK

Tel: +44 (0) 1933 650700

Fax: +44 (0) 1933 650726

Email: sales@sonifex.co.uk

Australian Office:

Sonifex Pty Ltd

12/6 Leighton Place,

Hornsby NSW 2077, Australia

Tel: +61 (2) 9987 0499

Fax: +61 (2) 9476 4950

Email: sales@sonifex.com.au