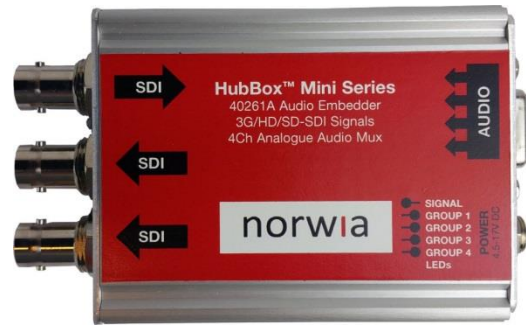


HubBox HB-EMB-4AA

3G-/HD-/SD-SDI Dual stereo analogue audio embedder

Data Sheet



Description

The HubBox 3G-HD-SD analogue audio embedder inserts two balanced stereo analogue audio pairs into any group in the ancillary data space of an SDI signal.

The unit automatically detects whether the SDI input is 3G, HD or 270Mb/s SD SDI. Audio conversion employs high quality 24-bit DACs. Adjustable full scale input levels meet all international standards. There is automatic input cable equalisation and two re-clocked SDI outputs are provided.

Units can be cascaded to enable embedding into all four available groups. The HubBox is perfect for using with the miniHUB system where one or two signals are required remotely.

Part Number Options

Part Number	Temperature
HB-EMB-4AA	0°C to +40°C

Absolute Maximum Ratings

Absolute maximum ratings are those values beyond which functional performance is not intended, device reliability is not implied, and damage to the device may occur.

Parameter	Minimum	Maximum	Unit
Storage temperature (non-operating)	-40	+85	°C
Relative Humidity (non-condensing)	5	80	%

General Operating Conditions

Parameter	Minimum	Typical	Maximum	Unit
Operating temperature	0		+40	°C
Supply voltage (Vcc)	6		12	V
Power consumption			5	W

Features

- Automatic 3G, HD, or SD SDI standard detection
- Insert two balanced analogue audio stereo pairs from any group
- Replaces or adds to existing audio
- High quality 24 bit audio ADC
- Adjustable full scale output levels to meet all international standards
- LEDs show group status and input signal presence
- Automatic input cable equalisation
- 2 re-clocked SDI outputs
- Locking connector for power supply
- Optional XLR breakout cable

General Operating Conditions (continued)

Parameter	
Dimensions	63.5mm x 84mm x 30mm (excluding connectors)
Weight	175g
Control	6 way DIP switch
LEDs	Power, input presence and audio group status

Electrical Video Characteristics

Parameter	
Supported standards: SMPTE	299M and 272M-C 259M-C (270Mbps), 625i 50, 525i 59.94 292M (1.485 & 1.435Gbps) <ul style="list-style-type: none">• 1080i 60/59.94/50• 1080p/psf 30/29.97/25/24/23.98• 720p 60/59.94/50/30/29.97/25/24/23.98 424M & 425-AB (2.97 & 2.967), 1080p 50/59.94/60
Number of inputs	1
Number of outputs	2
Typical input cable length equalization	Up to 100m of Belden 1694A @ 2.97Gbps Up to 160m of Belden 1694A @ 1.485Gbps Up to 200m of Belden 1694A @ 270Mbps
Output signal level	800mVp-p \pm 10%
Jitter	<0.2UI p-p
Connectors	BNC
Impedance	75ohm
Return loss	\geq 15 dB [5-1485 MHz], \geq 10dB [1485-2970MHz]

Electrical Audio Characteristics

Parameter	
Inputs	Balanced analogue audio, 2 stereo pairs
Connector	Female 15pin D-SUB (optional XLR breakout cable)
Impedance	>20kOhm
Input level	Adjustable 0dBFS = +12 to +26dBu
Maximum level	+24dBu
Quantisation	24 bit
Noise floor	<-90dB (A weighted)
Distortion	<0.002% (20Hz-20kHz)
Frequency response	\pm 0.2dB (20Hz-20kHz)
Crosstalk	<-90dB (20Hz-20kHz)

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