

# DTL MiniBlox<sup>TM</sup>

## 4463A Composite video & analogue audio to SDI with embedded audio ADC



### Features

- Converts analogue composite video to SDI and inserts two balanced analogue audio stereo pairs into any group
- Auto select multi-standard input of PAL, NTSC & SECAM
- Two 11 bit 4x oversampled video ADCs with 5 line adaptive comb filtering
- Automatic video gain control range from -3dB to 6dB
- Jitter filter and digital TBC for unstable input signals
- High quality 24 bit audio ADC
- Selectable 20 or 24 bit embedding
- Adjustable full scale input levels to meet all international standards
- LEDs show group status and input signal presence
- Extremely compact and rugged

### Control switches

- Audio group select
- 20/24 bit embedding
- Audio input level adjustment
- Pedestal control
- Disable AGC
- Disable jitter filter

### Description

The 4463 composite analogue to SDI analogue audio embedder is a complete digital embedding solution for users wishing to use their existing analogue audio and video equipment. Two balanced stereo audio pairs can be embedded into the ancillary data space of a 270Mb/s output SDI stream.

The broadcast quality composite video to SDI conversion uses two 11 bit ADCs with x4 oversampling and with five line adaptive comb filtering. A jitter filter and digital time base corrector compensate for unstable input signals.

The analogue audio input is sampled at 24 bits and can be embedded as 20 or 24 bit audio. Embedding conforms to SMPTE 272M and allows audio to be inserted into any of the four groups. Adjustable full scale input levels to meet all international standards.

The unit is housed in an extremely compact and rugged aluminium case and is suitable for both field and studio applications.

[www.miniblox.com](http://www.miniblox.com)

### Specifications

<b>Analogue video input</b>		Number	2 stereo pairs
Standards	Composite PAL, NTSC & SECAM	Impedance	20K $\Omega$
Connector	75 $\Omega$ BNC	Input level	Max 0dBFS=+26dBu/ Min 0dBFS=-12dBu
Signal level	1V p-p +100%, -50%	Quantisation	24 bit
Return loss	>40dB to 5.5MHz	Connector	Removable screw terminals
<b>Video conversion</b>		<b>Power</b>	
Differential gain	<1.6%	Voltage	6-12V DC
Differential phase	<0.5°	Current	450mA at 6V
Quantisation	10 bit	Power connector	Locking 2.5mm jack connector (centre +ve)
<b>SDI output</b>		<b>Audio embedding</b>	
Standards	SMPTE 259M 270Mb/s 525/625 SDI	Standards	SMPTE 272M
Connector	75 $\Omega$ BNC	Embedding	20 or 24 bits
Signal level	800mV p-p $\pm$ 10% (terminated)	<b>Other</b>	
Jitter	<0.15UI with colour bars input	LEDs	Show group status and signal presence
Return loss	>18dB to 270MHz	Temperature range	0°C to 40°C
<b>Analogue audio input</b>		Dimensions	63.5mm x84mm x30mm (excluding connectors)
Standard	Balanced analogue	Weight	175g

### Ordering information

4463A Composite video & analogue audio to SDI ADC  
4010 1U rack mounting frame for up to 5 units including PSU

4006 Desktop power supply with IEC320 C14 inlet

We reserve the right to change technical specifications without prior notice. E&OE.

**DTL Broadcast Ltd, Johnson's Estate, Silverdale Road, Hayes, Middlesex, UB3 3BA, UK.**

Phone: +44 (0) 20 8813 5200 Fax: +44 (0) 20 8813 5022 Internet: [www.dtl-broadcast.com](http://www.dtl-broadcast.com) Email: [sales@dtl-broadcast.com](mailto:sales@dtl-broadcast.com)