

Specification

Analogue input	
Standards	Composite NTSC (J, M, 4.43), PAL (B, D, G, H, I, M, N, Nc, 60) and SECAM (B, D, G, K, K1, L).
Connectors	75Ω BNC
Signal level	1V p-p nominal
Return loss	>40dB to 5.5MHz
CMR	>6Vp-p
SDI outputs	
Standards	SMPTE 259M 270Mb/s 525/625
Connector	75Ω BNC
Number	2
Signal level	800mVp-p ±10%
Return loss	>18dB to 270MHz
Jitter	<0.15UI with colour bars input
Performance	
Differential gain	<1.5%
Differential phase	<0.4°
Power	
Voltage	6-12V DC
Current	600mA at 6V
Power connector	Locking 2.5mm jack connector (centre +ve)
Other	
LED	Shows power and signal
Temperature range	0°C to 40°C
Dimensions	63.5mm x 84mm x 30mm (excluding connectors)
Weight	180g
<i>We reserve the right to change technical specifications without prior notice. E&OE.</i>	

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

Phone: +44 (0) 20 8813 5200

Internet: www.dtl-broadcast.com

Fax: +44 (0) 20 8813 5022

support@dtl-broadcast.com

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DTL MiniBlox™



User Guide



4430+ Composite analogue to SDI ADC

Converts analogue composite (PAL, NTSC or SECAM) to 270Mb/s 525/625 SDI

www.miniblox.com

EU declaration of conformity

We certify that this apparatus conforms to the requirements of the EMC and Low Voltage Directives. Emissions EN55103-1, susceptibility EN55103-2 and safety EN60950-1 2002.

6 October 2005



Warranty

DTL Broadcast Ltd warrants this unit against defects in materials and workmanship for a period of one year from the date of shipment. At its option, the company will repair or replace products that prove to be defective during the warranty period, provided they are returned to the company with advance notification and with freight prepaid. Repairs may only be conducted by an authorised representative of the company. As a result any unauthorised repair or attempted repair will automatically void the warranty.

When a distributor supplies the company's products, that distributor should be approached initially if there are any warranty problems.

The company makes no other warranties, express or implied, as to the merchantability, fitness for a particular purpose, or otherwise. The company's liability for any cause, including breach of contract, breach of warranty, or negligence, with respect to products sold by it, is limited to repair or replacement by the company, at its sole discretion. This remedy is exclusive. In no event shall the company be liable for any incidental or consequential damages, including loss of profits.

DTL MiniBlox™ - solutions in a box

General description

The 4430+ is a broadcast quality composite analogue to SDI converter.

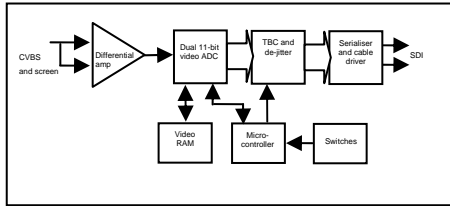
It uses dual 11 bit over sampling ADCs with 5 line adaptive comb filtering. Temporal noise reduction and 3D motion adaptive YC separation offer the highest quality conversion on the market. The unit accepts PAL, NTSC and SECAM analogue inputs. The input format is automatically detected.

It is housed in an extremely compact and rugged aluminium case ideally suited to both studio and portable applications.

Main features

- Analogue composite to SDI ADC
- Dual high speed oversampling 11-bit ADC's
- Digital TBC and jitter filter for greater output stability
- Temporal frame recursive noise reduction
- Motion adaptive 3D YC separation using a 5 line comb filter
- Automatic gain control
- Differential input to eliminate common mode 'hum' up to 6Vp-p
- Extremely compact and rugged
- Locking connector for PSU

Functional block diagram



Installation and operation

The unit is simple to use and install.

- Set the dipswitches by referring to the table and description below or the table on the rear of the unit.
- Connect valid analogue input signal.
- Connect an SDI output.
- Apply power to the unit either via the locking power connector from the external power supply or 1U rack frame, or by sliding into the 2U rack mounting frame with central power supplies.
- The LED will light green when there is power and a valid signal present. Red indicates the input signal is absent.
- The switch settings can be altered whilst the unit is powered and the changes are implemented immediately.
- The mounting bracket supplied can be used to install a MiniBlox unit. The bracket should first be fixed vertically to any surface. The MiniBlox can then be lowered onto the dovetail part of the bracket with the front endplate uppermost to retain it.

Switch settings

Switch	Function
1	No pedestal
2	Blank VBI
3	No AGC
4	No jitter filter
5	Noise reduction
6	Motion adaptive

The default switch setting on delivery is all switches in the off position.

- Switch 1 removes the pedestal of the input signal. This option is only valid for NTSC/525 line operation.
- Switch 2 blanks the vertical interval.
- Switch 3 disables the automatic gain control. The unit uses the sync and colourburst information to amplify or attenuate the signal to the correct levels. This can be disabled if, for example, a distribution amplifier has been used to set the gain to the desired levels.
- Switch 4 disables the jitter filter. This is useful if you are using a low quality input which the unit cannot lock too with the jitter filter enabled.
- Switch 5 enables temporal frame recursive noise reduction. This mode is useful for filtering any random noise from a video signal. By continually storing and comparing frames, momentary noise can be effectively 'cancelled out'.
- Advanced – Switch 6 enables 3D motion adaptive YC separation. This method of YC separation monitors the static and moving parts of the image to determine the best method of separation. This results in less cross-chroma and cross-luma artifacts. With motion adaptive YC separation disabled, a 5-line comb filter is selected.