

EU declaration of conformity

We certify that this apparatus conforms to the requirements of the EMC and Low Voltage Directives. Emissions EN 55103-1, susceptibility EN 55103-2 and safety EN 60950-1 2002.

01 September 2003



Warranty

The ISIS Group 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. ISIS Group's policy states that all repairs are only conducted by an authorized representative of the company. As a result any unauthorized 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.

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MiniBlox™

4432 Universal analog to SDI ADC

*Composite, YC or YUV component input with two SDI
outputs*

User Manual

Latest information available at:
www.isis-group.com
www.miniblox.com

Specifications

Analog input

Standards	Composite, YC & YUV component 525 or 625
Composite	NTSC, PAL & SECAM
Connectors	Three 75Ω BNCs
Signal level	1V p-p ±10%
Return loss	>40dB to 5.5MHz

SDI outputs

Standards	SMPTE 259M 270Mb/s 525/625
Connector	75Ω BNC
Number	2
Signal level	800mVp-p ±10%
Return loss	>20dB @270MHz

Performance

Differential gain	<0.4%
Differential phase	<1.5°
Delay	<10ns
Quantization	10-bit

Power

Voltage	6-12V DC
Current	250mA
Power connector	Locking 2.5mm jack connector (center +v)

Other

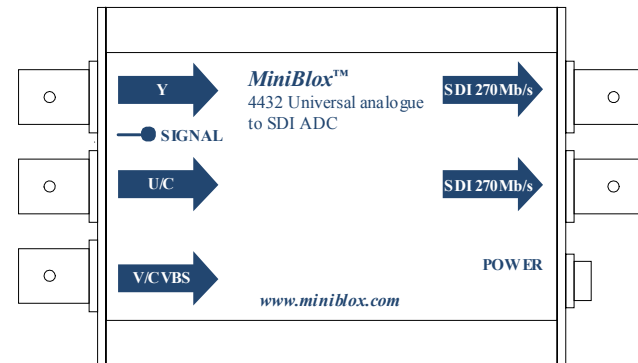
LED	Shows power and signal
Temperature range	0°C to 45°C
Dimensions	3 1/4" x 2 1/2" x 1 1/8" (excluding connectors)
Weight	7oz

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

MiniBlox™ - solutions in a box

General description

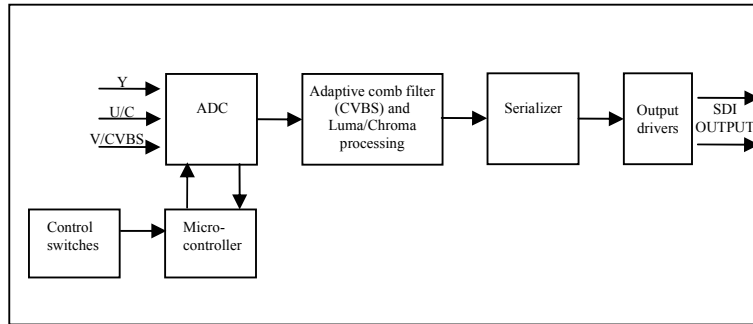
The 4432 is a broadcast quality universal analog to SDI converter. It uses a 10 bit 2x over sampling ADC with 4 line adaptive comb filtering. It is housed in an extremely compact and rugged aluminum case ideally suited to both studio and portable applications. The unit accepts composite, component or YC analog inputs. It automatically selects different types NTSC, PAL and SECAM.



4432 Main features

- Universal analog to SDI ADC
- Composite, YC or component YUV input
- Two SDI 270Mb/s 525/625 outputs
- Dual high-speed over sampling 10-bit A/D converters
- 4 line adaptive comb filter
- Auto select multi-standard input – NTSC, PAL & SECAM
- Handles a wide range of video input qualities
- Automatic gain control
- Compact and rugged design
- Locking connector for PSU

Functional block diagram



Installation and operation

The 4432 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 a valid analog input format.
- Connect one or both of the 270Mb/s SDI outputs.
- Apply power to the 4432 unit either via the locking power connector from the 4000 external power supply or by sliding into the 1RU or 2RU rack mounting frame with central power supplies. An alternative power source can be used to power the unit as long as the input power is within the range stated in the specifications.
- The 4-800MB mounting bracket 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.
- The LED will be green when there is power and a valid analog signal present.
- The switch settings can be altered while the unit is powered and the changes are implemented immediately.

Switch settings

Switch	1	2	Switch	OFF	ON
YUV	OFF	OFF	3	Pedestal	
YC	OFF	ON	4	Pass VBI	Blank VBI
CVBS	ON	OFF	5-6	Not used	

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

- Switches 1&2 set the analog video format. For correct operation of the unit the analog input format must match the switch selection
- Switch 3 defines if there is a 7.5 IRE pedestal on the input analog video source. When this switch is in the off position the unit does not expect a pedestal, when in the on position the unit expects a 7.5 IRE pedestal to be present on the input analog video source.
- Switch 4 controls the vertical blanking information (VBI) on the SDI video output. When the switch is off all VBI data in the analog video signal is passed through to the SDI output. When enabled the VBI data is removed from the analog input and not passed to the SDI output.
- Switch 5&6 are unused on this unit

Technical information and specifications

The 4432 unit, when in composite mode, utilizes a 4 line adaptive comb filter to separate the luminance and chrominance information from the input video source. This feature reduces artifacts such as hanging dots at color boundaries and detects and handles false colors in high frequency luminance images. This mode is recommended for most applications of this unit and should be sufficient for most users' requirements. For special applications it is possible to select a variety of comb and trap filters.

The unit automatically detects the input composite video format between different types of NTSC, PAL and SECAM and component 525 or 625 line systems. This is the standard configuration and is intended to meet most users' requirements. For special applications it is possible to optimize the unit for a particular input video source, further improving the performance of this unit.

Please contact your supplier for information on the modifications available.