

### ***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.

06 October 2005



### ***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***<sup>TM</sup>

**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](http://www.isis-group.com)***  
***[www.miniblox.com](http://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
CMR	>6V p-p

### ***SDI outputs***

Standards	SMPTE 259M 270Mb/s 525/625
Connector	75Ω BNC
Number	2
Signal level	800mVp-p ±10% (terminated)
Return loss	>18dB to 270MHz
Jitter	<0.15UI with color 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 (center +v)

### ***Other***

LED	Shows power and signal
Temperature range	0°C to 40°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 dual 11-bit oversampling ADC's with 5 line adaptive comb filtering. Temporal noise reduction and 3D motion adaptive YC separation offer the highest quality conversion. The unit accepts composite, RGB, YUV or YC analog inputs. It automatically selects different types of NTSC, PAL and SECAM.

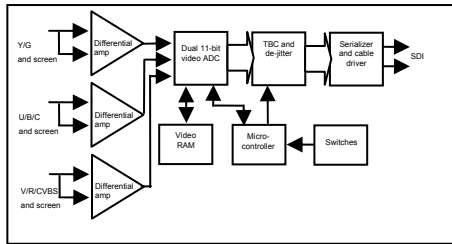
It is housed in an extremely compact and rugged aluminum case ideally suited to both studio and portable applications.



### ***4432+ Main features***

- Universal analog 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 5 line comb filter
- Automatic gain control
- Differential inputs to eliminate common mode hum up to 6V p-p
- 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
YUV	OFF	OFF
CVBS	ON	OFF
YC	OFF	ON
RGB	ON	ON
Switch	Function	
3	No jitter filter	
4	Blank VBI	
5	No pedestal	
6	Advanced menu	

Advanced Menu	
1	Not Used
2	No AGC
3	Noise Reduction
4	Motion Adaptive
5	Save Settings

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

- Switches 1&2 set the analog video format.
- Switch 3 disables the jitter filter. This is useful if you are using a low quality input which the unit cannot lock to with the jitter filter enabled.
- Switch 4 blanks the vertical interval.
- Switch 5 removes the pedestal of the input signal. This option is only valid for 525/625 line operation.
- Switch 6 enters the advanced settings menu. The options selected on the switches prior to moving to the advanced menu will remain.
- Advanced – Switch 2 disables the automatic gain control. The unit uses the sync and colorburst information to amplify or attenuate the signal to the correct levels.
- Advanced – Switch 3 enables temporal frame recursive noise reduction. By continually storing and comparing frames, momentary noise can be effectively cancelled out.
- Advanced – Switch 4 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 artefacts. With motion adaptive YC separation disabled, a 5-line comb filter is selected.