

Specification

| Analogue input | |
|--|---|
| Standards | Composite, YC, RGB & YUV component 525 or 625 |
| Composite | PAL, NTSC & SECAM |
| Connectors | Three 75Ω BNCs |
| 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 | 185g |
| <i>We reserve the right to change technical specifications without prior notice. E&OE.</i> | |



User Guide



4432+ Universal analogue to SDI ADC

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

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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.

- Advanced – Switch 5. Toggling this switch saves the settings from the advanced mode. The LED will flash to indicate that the settings have been saved (the settings will be saved even after powering down the unit).

DTL MiniBlox™ - solutions in a box

General description

The 4432+ is a broadcast quality universal analogue to SDI converter.

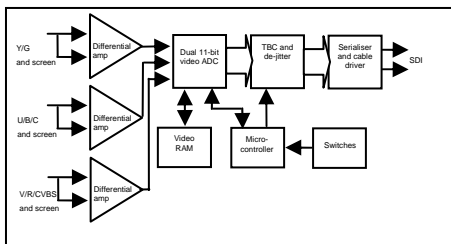
It uses dual 11 bit over sampling ADC's with 5 line adaptive comb filtering. Temporal noise reduction and 3D motion adaptive YC separation offer the highest quality conversion on the market. The unit accepts composite, YUV, RGB or YC analogue inputs. It automatically selects different types of PAL, NTSC and SECAM.

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

Main features

- Universal analogue 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 inputs 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(s).
- 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 | 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 are used to select the input format.
- Switch 3 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 4 blanks the vertical interval.
- Switch 5 removes the pedestal of the input signal. This option is only valid for NTSC/525 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 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.
- Advanced – Switch 3 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 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 artifacts. With motion adaptive YC separation disabled, a 5-line comb filter is selected.