

## Specification

<b>Video input</b>	
3G	SMPTE 424M & 425M-AB (2.97 & 2.967Gb/s) 1080p50/59.94/60
HD	SMPTE 292M (1.485 & 1.435Gb/s) 1080i 60/59.94/50 1080p/psf 30/29.97/25/24/23.98 720p 60/59.94/50/30/29.97/25/24/23.98
SD	SMPTE 259M-C (270Mb/s) 625i 50 525i 59.94
Number	1
Connector	75Ω BNC
Return loss	>15dB to 1.5GHz >10dB 1.5 to 2.97GHz
Cable equalisation	3G to 100m, HD to 160m, SD to 200m (Belden 1694A)
<b>Video outputs</b>	
Standards	As input
Format	As input
Number	2
Connectors	75Ω BNCs
Jitter	<0.2ui peak-to-peak
Return loss	>15dB to 1.5GHz >10dB 1.5 to 2.97GHz
<b>De-embedding</b>	
Standards	SMPTE 299M & 272M-C
<b>Audio outputs</b>	
Outputs	Balanced AES
Number	4
Connector	Female 15pin sub-D (optional XLR breakout cable)
Type	Transformer coupled
Sample rate	48kHz
Standard	AES3
Impedance	110Ω
Output level	3.5v p-p ±5%
Breakout cable (optional)	4 male XLRs

<b>Electrical</b>	
Voltage	6-12VDC
Power	<3W
Connector	Locking 2.5mm jack (centre +ve)
Safety	EN60950
<b>Control</b>	
Setup	6 way dipswitch
LEDs	Power, input presence & group status
<b>Other</b>	
Size (mm)	63.5 x 84 x 30 plus connectors
Weight	200g
Temperature	5°C to 40°C
Humidity	80% max (non condensing)

<b>Options</b>	
5CA15SD-X00	Audio cable HDD15 to 4M XLRs
4006	Desktop power supply with IEC inlet
NADITBNC-M	Male XLR to BNC adaptor for unbalanced AES output
4010	1U rack mounting frame for up to 5 units including PSU
4020	2U rack mounting frame for up to 14 units & single or dual PSUs
4021	Power supply for 4020 2U frame

**DTL MiniBlox**™



## User Guide

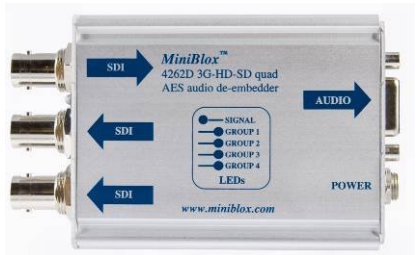


## 4262D 3G-HD-SD quad AES audio de-embedder

*Extracts four balanced AES digital audio streams from any two groups within an SDI signal*

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

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### 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.

29 September 2008



### 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 4262D 3G-HD-SD quad AES audio de-embedder extracts four AES audio streams (8 audio channels) from the ancillary data space of an SDI signal and provides broadcast quality balanced AES audio outputs. Audio can be extracted from any two embedded audio groups. Two units can be cascaded to enable de-embedding from all four available groups (16 audio channels).

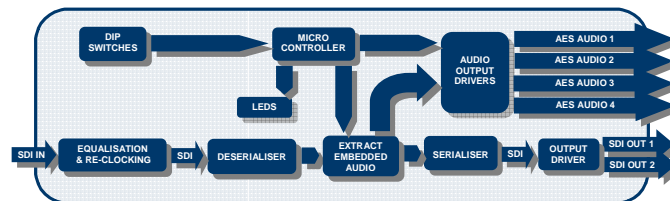
The unit automatically detects whether the SDI input is 3G, HD or 270Mb/s SD SDI. There is automatic input cable equalisation and two re-clocked SDI outputs are provided.

The unit requires an external power supply or a rack mounting frame. A 1RU frame is available which takes up to 5 units and a 2U one that takes up to 14. XLR audio breakout cables and external power supplies are also available.

#### Key features

- Automatic 3G, HD, or SD SDI standard detection
- Extracts four balanced AES audio streams from any two groups
- LEDs show group status and input signal presence
- Automatic input cable equalisation
- 2 re-clocked SDI outputs
- Locking connector for power supply
- Compact and rugged design
- Optional XLR breakout cable (XLR to BNC adaptors available for unbalanced AES outputs)
- Optional external power supply
- Optional rack mounting frames with central power supplies

#### 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 breakout cable (when this option has been ordered).
- Connect a valid SDI input and AES outputs. See the audio output section on the next page for connecting to the AES breakout cable or to a 15-pin male sub-D connector (not supplied).
- Connect SDI outputs (if required).
- 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.
- On power-up the unit will perform a short (3 second) self test. The group LEDs will flash while this is in progress.
- The signal LED will be green when there is power and a valid SDI signal present or red when there is power but no SDI signal.
- Two group LEDs will light corresponding to the groups selected by the dipswitches (default on delivery groups 1&2). The LED will be green if the unit is receiving a valid video signal and successfully de-embedding audio from that group. The LED will otherwise be red.
- 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 the 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	Group for audio outputs A1 & A2	
Switch 2	Group for audio outputs A3 & A4	
Switch 3	DS1	DS2
Switches 4-6	Not used	

Switches 1 & 2 are used to select the groups from which audio is extracted. Toggling switches 1 & 2 cycles between the available groups. Switch 1 selects the group for outputs A1 & A2. Switch 2 selects the group for outputs A3 & A4. The groups selected are indicated by the 4 LEDs. The group selections are stored in memory and are therefore retained even if the unit has been powered down.

Switch 3 selects whether audio is extracted from data stream one or two when there is a 3G SMPTE 425M level B SDI input present.

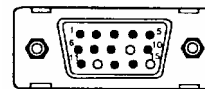
Switches 4 to 6 are not used.

## Audio outputs

When used with the optional XLR breakout cable outputs are as shown below.

XLR	Output
OUT A1	First group selected - Pair 1
OUT A2	First group selected - Pair 2
OUT A3	Second group selected - Pair 1
OUT A4	Second group selected - Pair 2

The pin out of the 15 way sub-D connector is as shown below:



15 way sub-D connector viewed looking in to pins of plug

Pin	Output	Balanced
1	Second group selected - Pair 2	+
2	Second group selected - Pair 1	Screen
3	First group selected - Pair 2	+
4	First group selected - Pair 1	Screen
5	Not used	NA
6	Second group selected - Pair 2	-
7	Second group selected - Pair 1	+
8	First group selected - Pair 2	-
9	First group selected - Pair 1	+
10	Not used	NA
11	Second group selected - Pair 2	Screen
12	Second group selected - Pair 1	-
13	First group selected - Pair 2	Screen
14	First group selected - Pair 1	-
15	Not used	NA