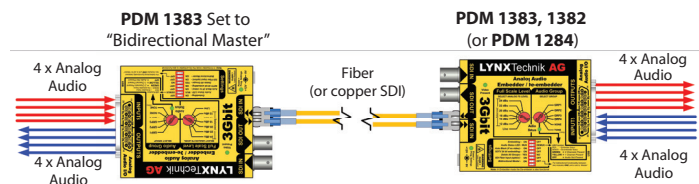


Bidirectional Master

A pair of modules can be used to transport audio (only) between two locations. Bidirectional functionality is possible when one of the two modules is set to be the “Bidirectional Master” using the dip switch. Please refer to the diagram.



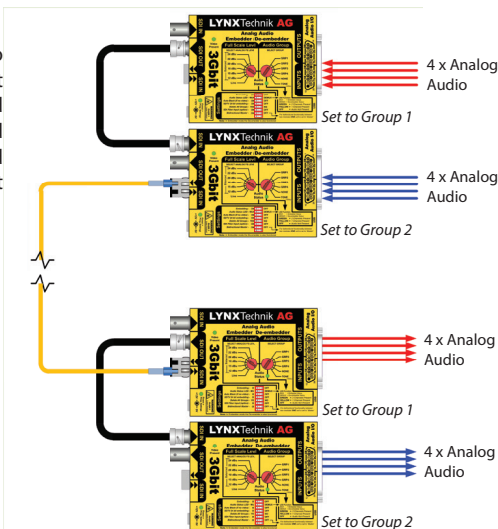
Cascading for Additional Audio Channels

All yellobrik Embedders and Deembedders can be cascaded to add more audio channels. For the PDM 1383, up to four modules can be cascaded to support the full payload of 16 analog audio channels.

The configuration below shows two modules cascaded to provide 8 audio channels. This example uses the “Auto Black” function without a video input for audio-only scenario.

When an SDI video signal is present at the input, it is passed through all cascaded yellobriks and appears at the output of the final unit.

Note: Cascading is not supported in bidirectional mode.



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PDM 1383

Technical Specifications

SDI Video

1 x SDI video input on 75 Ohm BNC connector
1 x SDI video output on 75 Ohm BNC connector

SMPTE 424M, SMPTE 292M, SMPTE 259M
3G Level A & B-DL & B-D5 according to SMPTE ST 425-1 and ST 425-2 (3D) with image formats 1280x720 and 1920x1080

Output standard follows input

Multi-standard operation from 270Mbit/s to 3Gbit/s

SDTV	525/625
720p and 1080p	23.98/24/25/29.97/30/50/59.94/60 Hz
1080psf	23.98/24/25/29.97/30 Hz
1080i	50/59.94/60 Hz

Electrical Return Loss: >15dB from 5MHz to 1.5GHz, >10dB from 1.5GHz to 3GHz

Automatic cable EQ: 250m @ 270Mbit/s, 150m @ 1.5Gbit/s, 120m @ 3Gbit/s

Fiber Optic

1 x fiber input, 1 x fiber output (Duplex LC/PC Connection)

SMPTE 297M - 2006

AES

AES3-id on 75 Ohm BNC, 2 channels (selectable)

Audio

4 x analog audio inputs on 25 pin DSub Connector (10k Ohm)
4 x analog audio outputs on 25 pin DSub Connector (150 Ohm)

Full scale analog audio level (or line level) selectable via rotary switch

AES group selection provided via rotary switch

USB

Standard USB Mini B port for yelloGUI interface + firmware updates

Power

+12V DC @ 4.8W nominal (supports 10 - 14V DC input range)



WARNING
CLASS 1M LASER PRODUCT
LASER RADIATION

Do not view directly with
optical instruments

Visit our website for the latest product updates: www.lynx-technik.com

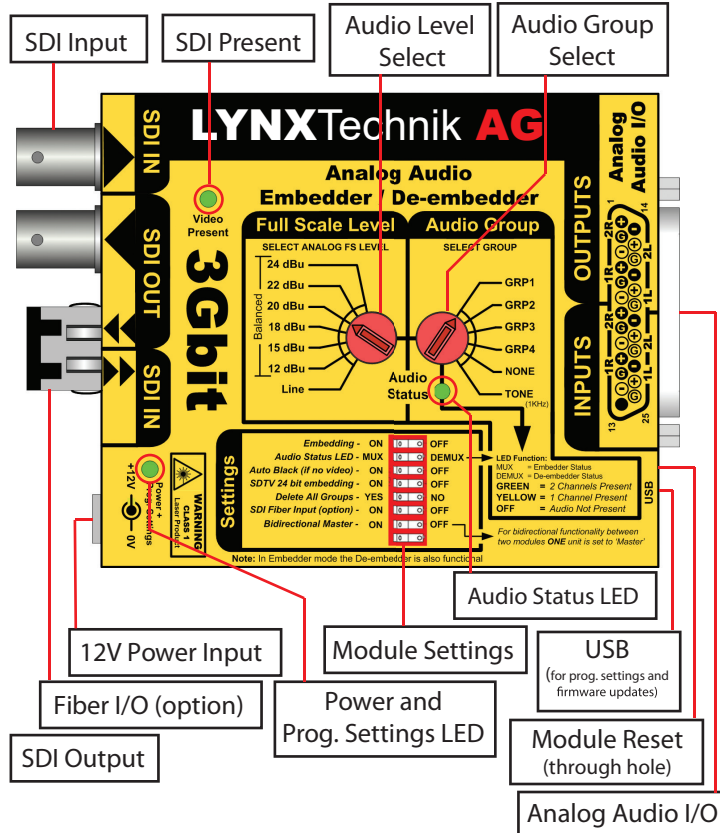
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Quick Reference

PDM 1383

3G-SDI Analog Audio Embedder / Deembedder



Connections

All connections are clearly indicated on the module. Analog audio I/O connections must be directly wired to a suitable male 25 pin D-Sub connector.

Note: The module is designed for balanced audio signals. If using unbalanced audio then the audio levels and full scale calibrations will not be accurate, there may also be more noise on the signal.

Fiber I/O Options

This yellobrik supports optional fiber SFP modules that can transmit and/or receive signals over fiber. LYNX Technik offers a wide range of SFP options, including standard 1310 nm single-mode, multi-mode, and CWDM solutions in 18 different wavelengths. The SFP plugs directly into the side of the module and can be selected to suit the required fiber application.

Operation

The PDM 1383 functions as a 4-channel audio embedder and de-embedder. It supports simultaneous embedding and de-embedding, allowing audio from a selected audio group to be de-embedded and replaced with audio from one of the incoming channels.

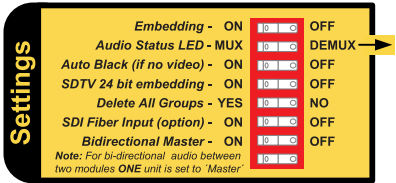
An audio “group” consists of 2 × AES pairs, providing 4 audio channels.

Rotary switches are provided for selecting the embedded audio group and setting the audio level. The Full Scale (FS) level can be set for balanced audio, while unbalanced audio can be configured for line level.

Switch Settings

The integrated DIP switches provide access to the module’s basic functions.

- Turn off audio embedding
- Control the Audio LED behavior
- Enable Auto Black mode when no video input is present
- Toggle between SDTV 20 or 24-bit embedded audio
- Remove all audio channels from the incoming SDI signal
- Use optical fiber as source
- Make it the bidirectional Master



Module LEDs

The module has several LEDs included to indicate status:

SDI Present LED (electrical or fiber input)

- Green Valid SDI signal connected
- Off (Off) Non valid SDI signal or signal missing

Audio Status LED

- Green Both of the audio channels are present
- Yellow Only one of the audio channels is present
- Off No audio present

Power / Prog Setting LED

- Green Power OK and no internal programmed settings are in use
- Yellow Power OK; software-controlled settings are active*
- Red One or more of module switch settings have been overwritten with the yelloGUI application. (Operation of any local switch will clear internal settings and restore all local switch settings)
- Off Power not present

* Additional settings have been made using Lynx Centraal or yelloGUI that may not reflect the state of the DIP switches. The module can be reset to factory defaults by using the reset switch (recessed under a hole on the side of the module). When reset the LED will change back to Green.

Central Control Interface via USB

The USB interface on the module is used for firmware updates and advanced control using yelloGUI or Lynx Centraal.

To update a yellobrik, power it and connect it via USB or through a Rack Controller. The software application will show when a new firmware is available for the module and will guide you through the update process.



[www.lynx-technik.com/
software-applications/](http://www.lynx-technik.com/software-applications/)

Firmware updates are free of charge.

25-pin D-Sub accessories

LYNX Technik uses 25-pin D-Sub connectors to offer flexible audio wiring connections for AES and Analog audio throughout its product range.



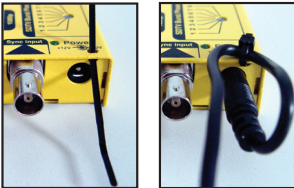
The RBO A025 is an optional multi-purpose breakout board adaptor with screw terminal for AES and Analog audio.



The RAC MF25-4/4 audio breakout cable is an optional 25 pin D-Sub to 4 Male / 4 Female XLR adapter.

Power Lead Strain Relief

A small hole in the case is located above the power connection. To prevent the power lead being accidentally pulled out, use a tie-wrap to secure the lead as shown here.



Mounting Solutions

LYNX Technik offers two optional solutions for mounting yellobriks.

- The RFR 1001 bracket is a simple solution for securing a single yellobrik module to any surface.
- The RFR 1200 rack frame can host up to 14 yellobriks in a standard 19” rack and provide fully redundant power to all installed modules.

