Module LEDs

The module has several LEDs included to indicate status. Function is described below:

SDI Present LED

= Valid SDI Signal connected
= (out) non valid SDI signal or signal missing

Audio Status LED

When in "deembeder" mode the LED displays status of the embedded audio in the SDI signal. When in "embedder" mode the LED displays the status of the external audio inputs.

= Both stereo pairs have at least one audio channel present
= One stereo pair is missing both channels, the other has at least one channel present
= (out) no audio present

Power / Prog Setting LED

= Power present and no programmed settings are set
= Power OK and some programmed settings are active*
= (out) Power not present

* Reserved for future use. Some additional internal settings may be possible using the USB interface, if any of these are set the LED indicates this by turning yellow. 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.

USB Port

The USB interface on the module is used for firmware updates and will also be used to access additional internal settings and features using PC software from LYNX Technik. (Future use)

Firmware updates are always provided free of charge and can be downloaded from our website (navigate to the module on our website and follow the firmware update links). A PC and a standard USB cable is required for firmware updates. The reset switch and the ability to program additional settings via a PC are reserved for future use.

Fiber I/O Options

The PDM 1383 can accommodate several fiber options which are detailed below. These are SFP sub modules and simply plug into the side of the module. These can be added at any time. We can also supply CWDM versions in 18 different wavelengths if required. Please contact LYNX Technik if you would like more information on CWDM fiber.

Tranceiver (Receive and Transmit)

Wa velength	TX Power	RX Sensitivity	Max Distance	Option #
1310nm	-5dBm	-19dBm	10km (6.2miles)	OH-TR- 1

Transmitter only

Wa velength	TX Power	Max Distance	Option #
1310nm	-5dBm	10km (6.2miles)	OH-TX- 1

Receiver only

Wa velength	RX Sensitivity	Option #
1270-1630nm	-19dBm	OH-RX- 1

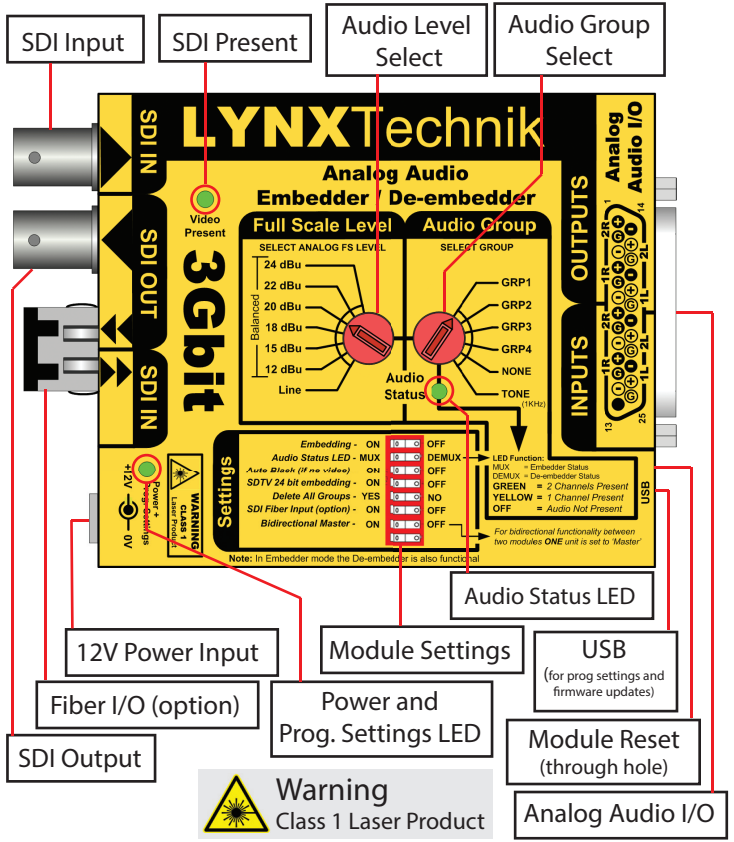
Power Lead Strain Relief

The module has a small hole in the case located above the power connection. To prevent the power lead being accidentally pulled out, use the supplied tie-wrap and secure the lead as shown below.

yellobrik® Quick Reference

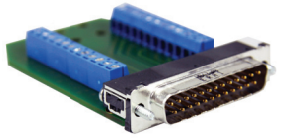
PDM 1383

3G Analog Audio Embedder / Deembedder



Connections

All connections are clearly indicated on the module. Analog audio I/O connections can be made two ways, by directly wiring connections to a suitable male 25pin SubD connector, or by using the supplied 25pin SubD PCB adapter with screw terminals.



25 Pin SubD Adapter PCB with screw terminals

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.

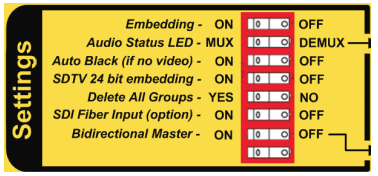
Operation

The PDM 1383 functions as a 4 channel embedder and de-embedder. The module will also support simultaneous embedding and deembedding where audio can be deembedded from the selected audio group before overwriting it with new audio.

Rotary switches are provided for embedded audio group selection as well as audio level, levels can be preset to a FS (full scale) level for balanced audio, or line level for unbalanced audio.
(Note. An audio "group" is 2 x AES = 4 channels of audio)

Settings

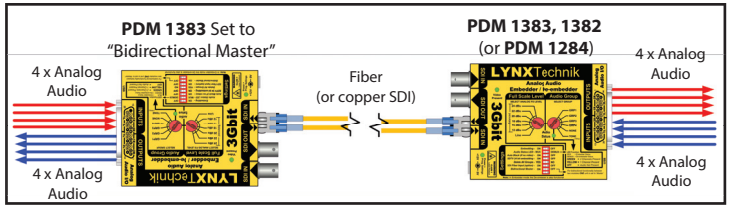
A dip switch is provided for module configuration. Settings are indicated on the module and self explanatory.



The "Auto Black" function will inject a black test signal into the SDI stream if the input video is lost, allowing for an uninterrupted audio connection. This mode also allows the module to be used for analog audio transport only if required.

Bidirectional Master

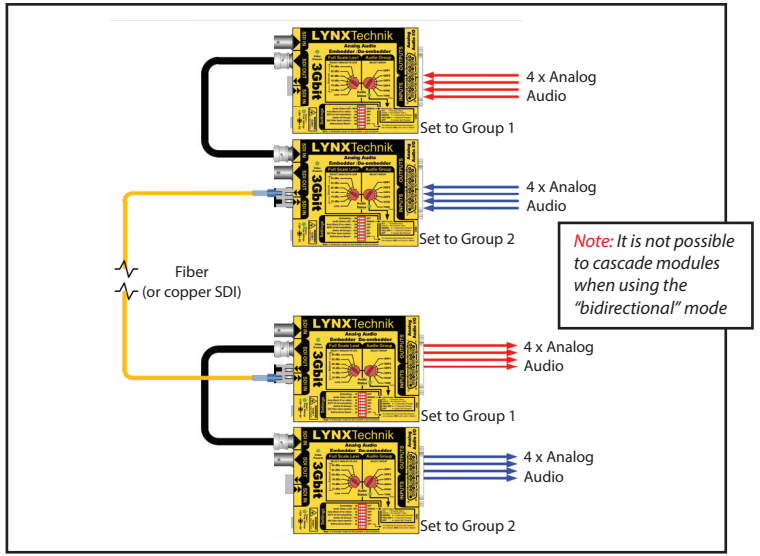
If a pair of modules are being used to transport audio (only) between two locations then bidirectional functionality is possible when one of the two modules is set to be the "Bidirectional Master" using the dip switch. Please refer to the diagram.



Only one end needs to be set as the Bidirectional Master, the other end can be a PDM 1383, PDM 1382 or even a PDM 1284 for AES I/O

Cascading for More Audio Channels

All of our yellobrik Embedders/Deembedders can be cascaded to add more audio channels. In the case of 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 for 8 channels. (This example is using the "auto black" function and is for audio only - normal SDI video could also be used)



P D M 1 3 8 3 R 1

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Technical Specifications

SDI Input	1 x SDI - 75 Ohm BNC connector, SMPTE 424M, SMPTE 292M, SMPTE 259M
	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)
	Return Loss: > 15dB to 1.5Gbit/s and > 10dB up to 3Gbit/s
	Automatic cable EQ (Belden 1694A cable) 250m @ 270Mbit/s, 140m @ 1.5Gbit/s, 80m @ 3Gbit/s
Optical I/O (Option)	1 x fiber optic input and/or output LC singlemode fiber connection (see tables in guide)
	SMPTE 297M - 2006
SDI Output	1 x SDI - 75 Ohm BNC connector, SMPTE 424M, SMPTE 292M, SMPTE 259M
	Multi-standard operation from 270Mbit/s to 3Gbit/s
Audio Inputs	4 x analog audio inputs on 25 pin SubD Connector (10K Ohm) Full scale analog audio level (or line level) selectable via rotary switch
	AES group selection provided via rotary switch
Audio Outputs	4 x analog audio outputs on 25 pin SubD Connector (150 Ohm) Full scale analog audio level (or line level) selectable via rotary switch
	AES group selection provided via rotary switch
Power	+12VDC power supply (included)

We are constantly adding additional yellobrik modules.
Please visit our website for the latest product updates.
www.lynx-technik.com

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