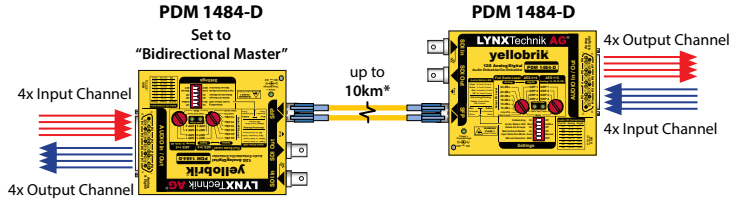


## Bidirectional Master

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 "Bidirectional Master" using the dip switch. Please refer to the diagram.

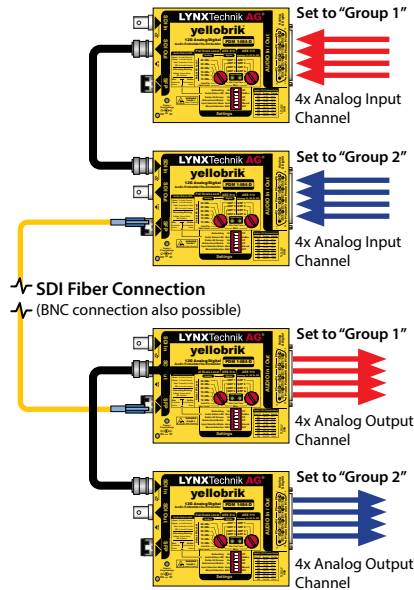


## Cascading for More Audio Channels

All of our yellobrik Embedders/De-Embedders can be cascaded to add more audio channels. By using four modules on each side of the link, the PDM 1484 can be cascaded to support the full payload of 16 mono channels in analog mode.

The configuration to the right uses two modules cascaded for 8 analog channels.

This example is using the "Auto Black" function allowing audio only transfer - normal SDI video could also be used.



**Note:** It is not possible to cascade modules when using the bidirectional mode



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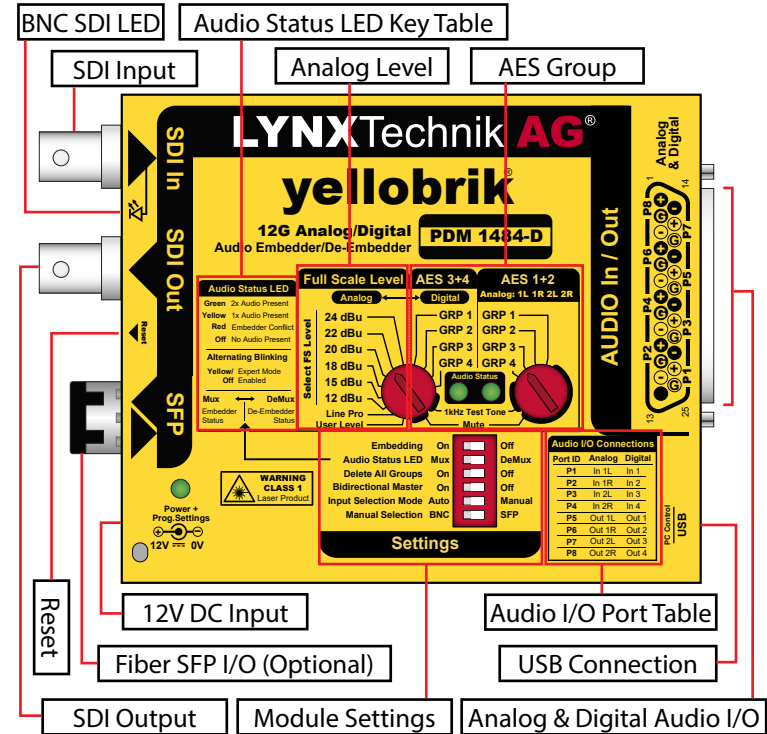
Quick Reference

## Technical Specifications

<b>SDI Input</b>	1 x SDI video on 75 Ohm BNC connector				
	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 2081-1, SMPTE 2082-1				
	Multi-standard operation from 270Mbit/s to 12Gbit/s				
	SDTV	(525/625)			
	720p	(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)			
	1080p	(23.98/24/25/29.97/30/50/59.94/60 Hz)			
	2160p	(23.98/24/25/29.97/30/50/59.94/60 Hz)			
Electrical Return Loss:	to 1.5GHz	to 3GHz	to 6GHz	to 12GHz	
	>15dB	>10dB	>7dB	>4dB	
Automatic cable EQ	270Mbit/s	1.5Gbit/s	3Gbit/s	6Gbit/s	12Gbit/s
	340m	200m	150m	100m	100m
	Belden 1694A		Belden 4794R		
<b>SDI Output</b>	1 x SDI video on 75 Ohm BNC connector				
	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 2081-1, SMPTE 2082-1				
Electrical Return Loss:	to 1.5GHz	to 3GHz	to 6GHz	to 12GHz	
	>15dB	>10dB	>7dB	>4dB	
<b>Fiber I/O</b>	(optional) 1 x fiber optic input and output (see table)				
	SMPTE 297M - 2006				
<b>AES I/O</b>	4 x AES3 balanced <b>inputs</b> on 25 pin SubD Connector (110 Ohm)				
	4 x AES3 balanced <b>outputs</b> on 25 pin SubD Connector (110 Ohm)				
<b>Analog Audio I/O</b>	10k Ohm differential balanced input mode with 24,22,20,18,15,12 dBu and User definable full scale level (selectable)				
	Unbalanced mode with (line level) at -10 dBV				
	(D-Sub 25 to screw terminal breakout board RBO A025 supplied)				
<b>Power</b>	+12VDC @ 12.96W nominal - ( supports 8 - 14VDC input range )				

## PDM 1484-D

12G AES/Analog Audio Embedder / De-Embedder



**LYNXTechnik AG** | [www.lynx-technik.com](http://www.lynx-technik.com)

**WARNING**  
CLASS 1M LASER PRODUCT



**Laser Radiation**  
Do not look directly into emitter with optical instruments

## Connections

All connections are clearly indicated on the module. Analog audio I/O connections can be made by:



D-Sub 25 to Screw Terminal Module  
RBO A025

- Using the supplied 25 pin SubD PCB adapter with screw terminals (LYNX RBO A100)
- Using an appropriate XLR audio breakout cable for 25 Pin SubD connections (LYNX RAC MF25-4/4, RAC F25-8, or RAC M25-8)
- Wiring connections to a 25 pin male SubD connector by hand

**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

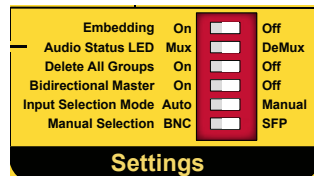
The PDM 1484-D functions as a 4 channel embedder and de-embedder. The module also supports simultaneous embedding and de-embedding where audio can be de-embedded from the selected audio group before overwriting it with new audio.

Rotary dials provide embedder / de-embedder audio group selection and analog audio mode along with FS (full scale) level selection. The FS Level can be set to a various levels for balanced audio (user definable level included), or to Consumer Line level for unbalanced audio.

**Note:** An AES audio "group" is 2 x AES = 4 channels of audio

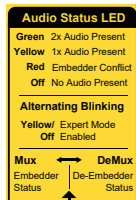
## Switch Settings

The integrated dip switch provides access to basic functions without the use of a control software. You can switch core-features on or off, select between automatic or manual signal routing, or explicitly select the input source. With the control software, more settings and automation options are available.



## Audio Status LED

These LEDs indicate either the Embedder or De-Embedder status for SDI connections, depending on your device settings.



## Module LEDs

The module has several LEDs included to indicate status:

### SDI Present LED (electrical and fiber input have individual LEDs)

- Green Valid SDI signal
- Off No valid or missing SDI signal

### Audio Status LED

- Green Two audio channels are present
- Yellow One audio channel is present
- Yellow (blinking) Expert Mode enabled
- Red Embedder Conflict
- Off No audio present

### Power / Prog Setting LED

- Green Power OK and no internal programmed settings are present
- Yellow Power OK and control software exclusive settings are active\*
- Yellow (blinking) "Locate" functionality enabled via control software to identify physical module
- Red Power OK and physical settings are overwritten by software settings
- Red (blinking) Hardware malfunction ( Fan Error, Overheating, etc.)
- Off Power not present

\*The module can be reset to factory defaults by using the reset switch

## Central Control Interface via USB

The USB interface on the module is used for firmware updates and control of the module using the LynxCentraal or yelloGUI software application.

To update a yellobrik, power it on and connect it to a PC or Mac running LYNX control software. If an update is available you will be informed in the "Update" section of LynxCentraal or via a pop-up in yelloGUI.

Firmware updates and our control software are free of charge.



LYNX | Centraal.



yelloGUI

## Fiber I/O Options

The optional fiber I/O SFP modules plug into the side of the module and are ideal to bridge longer distances. We offer Singlemode CWDM versions (in 18 different wavelengths according to ITU-T G694.2), as well as plain Singlemode and Multimode solutions. This module can use TR (Transceiver), TX (Transmitter), and RX (Receiver).

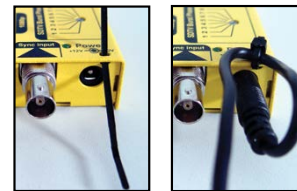
### Transceiver (send and receive)

Option #	Wavelength	TX Power	RX Sensitivity	Max Distance
OH-TR-12G-LC	1310 nm	-5 ... +0.5dBm	6 - 12G: -10dBm 1.5 - 3G: -14dBm	10km (6.2miles)
OH-TR-12G-XXXX-LC	1270 - 1610nm	-2 ... +3dBm	6 - 12G: -10dBm 1.5 - 3G: -14dBm	10km (6.2miles)

SFP modules listed here are singlemode fiber modules. Other modules are available on request.

## 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 opposite.



## Mounting Solutions

This module can either be single mounted (using the RFR 1001 mounting bracket) or rack mounted (using the RFR 1200 19" rack mount). The RFR 1200 can mount up to 14 yellobrik modules. In addition it can provide full power redundancy and GPIO alerts in case of power supply failure.

