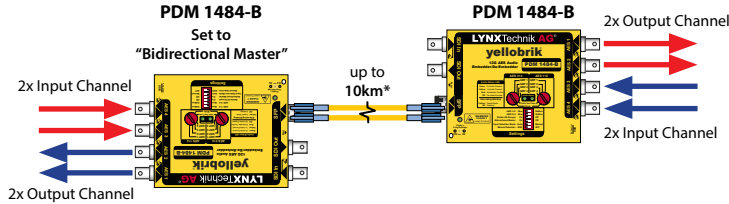


Bidirectional Master

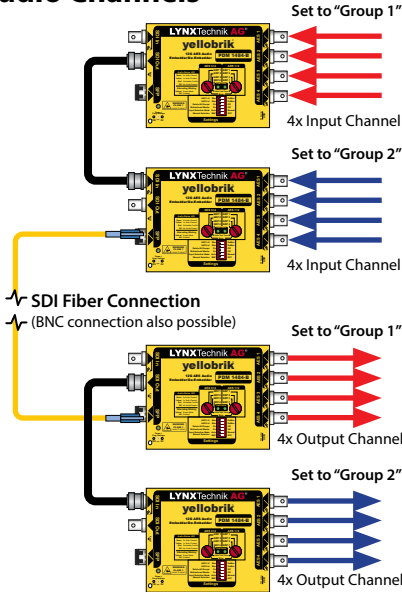
A pair of modules can be used to transport audio (only) between two locations. Bidirectional functionality is possible when one of the two modules is set to be the "Bidirectional Master" using the dip switch. Please refer to the diagram.



Cascading for More Audio Channels

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

The configuration to the right uses two modules cascaded for 8 AES 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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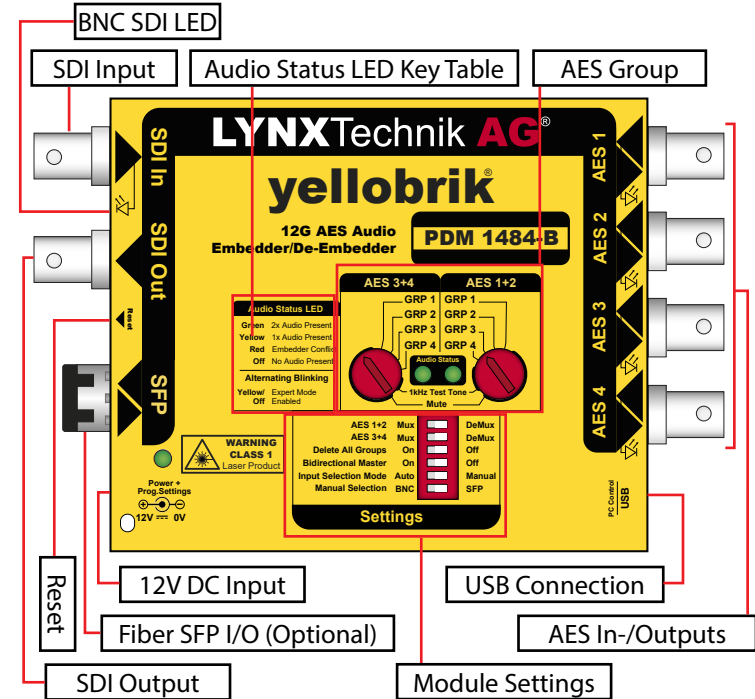
Quick Reference

Technical Specifications

SDI Input	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		
270Mbit/s		1.5Gbit/s	3Gbit/s	6Gbit/s	12Gbit/s	
Automatic cable EQ		340m	200m	150m	100m	100m
		Belden 1694A		Belden 4794R		
SDI Output	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		
Fiber I/O	(optional) 1 x fiber optic input and output (see table)					
	SMPTE 297M - 2006					
AES I/O	4 x AES-3id in- / outputs on BNC Connector (75 Ohm)					
	AES group selection provided via rotary switch					
Power	+12VDC @ 10.87W nominal - (supports 8 - 14VDC input range)					

PDM 1484-B

12G AES Audio Embedder / De-Embedder



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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. AES audio can be Embedded/ De-Embedded between AES In-/ Outputs 1-4 and SDI In and SDI Out respectively.

Alternatively Fiber options via SFP Module Are possible to transmit 12G SDI over long distances.

Operation

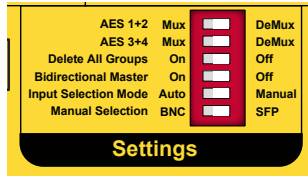
The PDM 1484-B functions as a 4 AES channel embedder and de-embedder. The module will also support simultaneous embedding and de-embedding where audio can be de-embedded from the selected audio group before overwriting it with new audio.

Rotary dials provide embedder / de-embedder audio group selection.

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

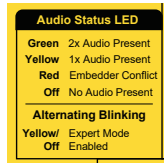
Switch Settings

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.





Expert Mode

In Expert Mode, the user can apply more sophisticated device configurations. This can be done by LYNXCentraal or yelloGUI.






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.

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).

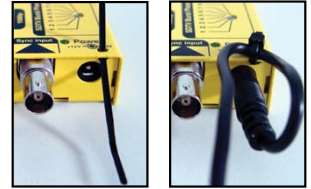
Transceiver (send and receive)

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

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.



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