yellobrik®

PDM 1484 D

LYNX | Centraal™ ✓ yelloGUI ✓

AES/Analog Audio Embedder / De-embedder (balanced AES/ Analog)

- Simultaneous embedding and de-embedding
- Ideal as bidirectional master
- 3G-SDI Level A and Level B support
- SDI video formats up to 12G-SDI (2160p60)
- 4 x AES/Analog inputs / outputs with selectable audio groups
- Optional Fiber I/O
- Integrated 1 kHz test tone generator
- Automatic PCM / encoded audio detection
- Auto black if no video present
- Selectable SDTV 24 bit mode
- Video and Audio present LED indicators

Shown with optional fiber SFP installed

The PDM 1484 D is a versatile AES audio embedder and de-embedder designed for a wide range of SDI video formats up to 12G. It supports balanced AES and analog audio I/O using a 25 pin SubD connector. The 25 pin SubD breakout board RBO A025 is included.

Audio groups are selected using the rotary switches or control software. It is possible to embed and de-embed additional audio groups by cascading modules together. Simultaneous embedding and de-embedding means the module will de-embed and output the audio from the selected audio group before overwriting with new audio (if required). The module automatically detects audio formats and will deactivate the sample rate converters to preserve encoded bit streams such as DolbyE. A 1 kHz test tone generator is included for audio testing purposes.
Analog audio processing for embedding can be set to balanced and unbalanced input modes. Balanced I/O can be 24, 22, 20, 18, 15, 12 dBu, professional line level or user defineable fullscale level.

The "auto black" mode uses a black video frame if no SDI input is present. This allows the module to embed audio even when no video source is available. This mode is useful if the module is being used in an "audio only" application.

The module is also compatible with the LynxCentraal and yelloGUI control software, which provides access to a host of additional internal settings.

Fiber I/O Options:

SDI Fiber Transmitter Options		
Model	Description	Power
OH-TX-12G-LC	12G SFP Fiber TX - Singlemode - LC conn. - 10km	-5 ... +0.5dBm
OH-TX-12G-ST	12G SFP Fiber TX - Singlemode - ST conn. - 10km	-5 ... +2dBm
OH-TX-12G-XXXX-LC	12G CWDM SFP Fiber TX - SM - LC conn. -10km	-2 ... +3dBm

SDI Fiber Receiver Options		
Model	Description	Sensitivity
OH-RX-12G-LC	12G SFP Fiber RX - Singlemode - LC Connector	-10dBm (12G) -14dBm (6G/3G) -16dBm (1.5G)
OH-RX-12G-ST	12G SFP Fiber RX - Singlemode - ST Connector	-10dBm (12G/6G) -14dBm (3G/1.5G)

SDI Fiber Transceiver Options			
Model	Description	Power	Sense
OH-TR-12G-LC	SFP Fiber RX/TX - Singlemode - LC Conn. - 10km	-5 ... 0.5 dBm	-10dBm (13G/6G) -14dBm (3G/1.5G)
OH-TR-12G-XXXX-LC	12G CWDM SFP Fiber RX/TX - SM - LC Conn. - 10km	-2 ... +3 dBm	-10dBm (13G/6G) -14dBm (3G/1.5G)

XXXX=Wavelength. 18 according to ITU T G692.2 1270nm through 1610nm

CAUTION: This is a high power module. If mounting the module in the RFR 1200 rack frame please leave an empty slot each side of the module to allow for adequate airflow to prevent the risk of overheating.

Technical Specifications

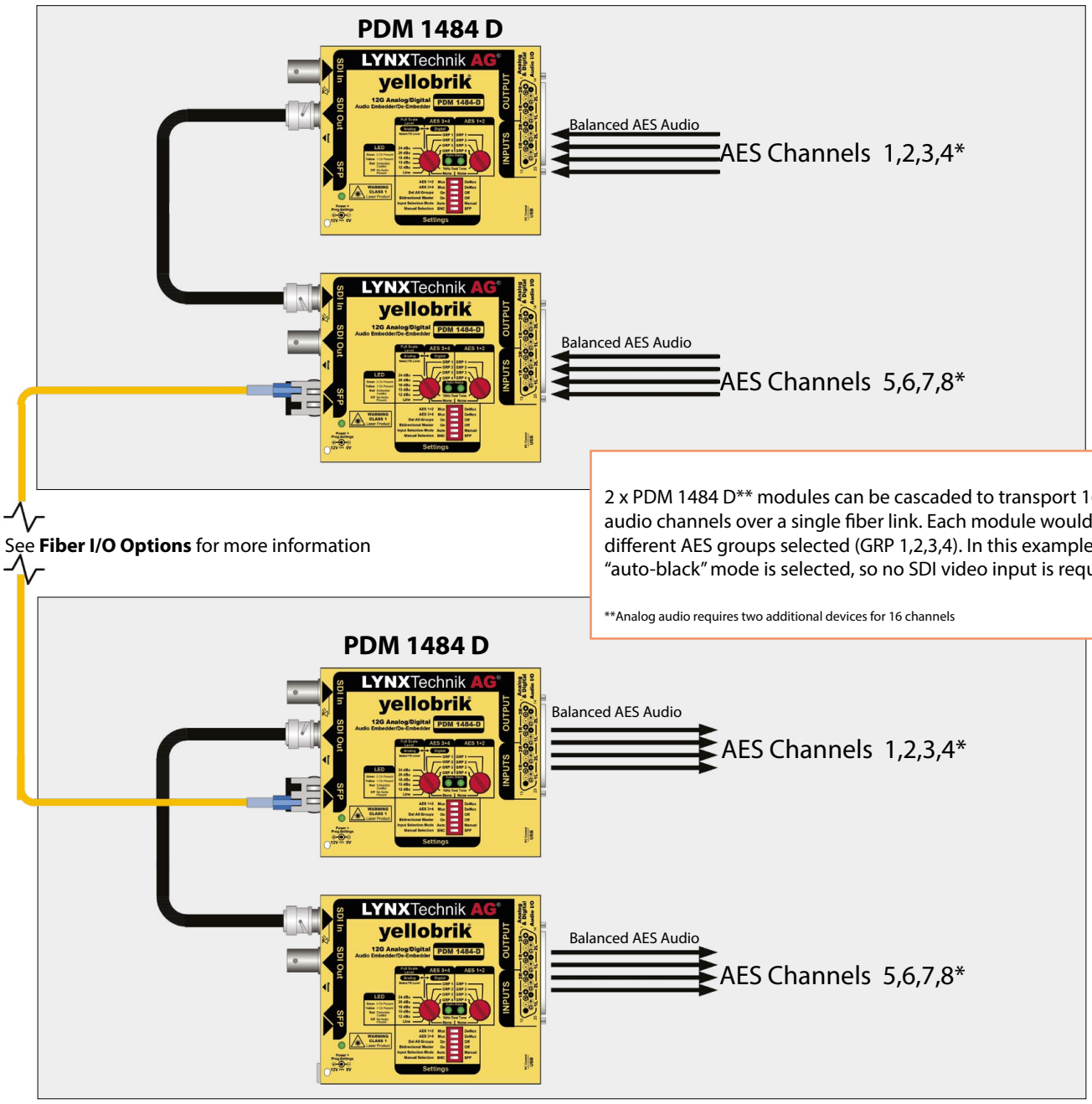
SDI I/O	1 x SDI video input on BNC connector (75 Ohm)					
	1 x SDI video output on BNC connector (75 Ohm)					
	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 2081-1, SMPTE 2082-1					
	Multi-standard operation from 270Mbit/s to 12Gbit/s SDTV (525/625) 720p (23.98/24/25/29.97/30/50/59.94/60 Hz) 1080psf (23.98/24/25/29.97/30 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 >15dB	to 3GHz >10dB	to 6GHz >7dB	to 12GHz >4dB
	Automatic cable EQ	270Mbit/s	1.5Gbit/s	3Gbit/s	6Gbit/s	12Gbit/s
		340m*	200m*	150m*	100m*	100m*
			Belden 1694A		Belden 4794R	
Fiber I/O	(optional) 1 x fiber optic input and output (see table)					
	SMPTE 297M - 2006					
AES I/O	4 x AES3 balanced inputs on 25 pin SubD Connector (110 Ohm)					
	4 x AES3 balanced outputs on 25 pin SubD Connector (110 Ohm)					
	AES group selection provided via rotary switch					
Analog Audio I/O	4 x Analog audio input on 25 pin SubD Connector (10k Ohm)					
	4 x Analog audio output on 25 pin SubD Connector (150 Ohm)					
	Balanced I/O mode for 24, 22, 20, 18, 15, 12 dBu, professional line level and user defineable full scale level (selectable)					
Power	+12VDC @ 12.96W nominal - (supports 8 - 24VDC input range)					
Physical	Size (incl. connectors): 126mm x 90mm x 22mm (4.96" x 3.54" x 0.86") Weight (excl. SFP): 200g (7.05oz)					
Ambient	5 - 40ºC (41 - 104ºF) 90% Humidity (non condensing)					
Model #	PDM 1484 D - (EAN# 4250479329065)					
Includes	Module, RBO A025, AC power supply					

*Distance is an approximation. Actual distances achieved can be longer or shorter depending on the type of cable. Determine link losses and perform optical budget calculations to ensure correct operation.

PDM1484-D_DS_rev04 Specifications subject to change

PDM 1484 D Application

The basic SDI embedding and de-embedding applications for the PDM 1484 D are somewhat obvious, but with the "auto-black" mode the modules can be used to transport audio signals only. This provides a very cost-effective way to transport multichannel audio over fiber without the need for external optical multiplexing. The example below shows how two modules in each location can be used to transport 16 x digital audio signals between two locations over fiber.



2 x PDM 1484 D** modules can be cascaded to transport 16 audio channels over a single fiber link. Each module would have different AES groups selected (GRP 1,2,3,4). In this example "auto-black" mode is selected, so no SDI video input is required.

**Analog audio requires two additional devices for 16 channels

*In-/Outputs can also be Analog Audio of different input level per device.