yellobrik®

PDM 1383

yelloGUI compatible

Analog Audio Embedder / De-embedder

- Simultaneous embedding and de-embedding
- 3G SDI Level A and Level B support
- SDI video formats up to 3Gbit (1080p60)
- 4 x Analog audio inputs / outputs with selectable audio groups
- Optional Fiber I/O
- Integrated 1 kHz test tone generator
- Bidirectional audio transport mode possible
- Auto black if no video present
- Selectable SDTV 24 bit mode
- Video and Audio present LED indicators
- Internal full mono audio shuffling via yelloGUI

The PDM 1383 is a versatile analog audio embedder and de-embedder designed for a wide range of SDI video formats up to 3Gbit. Analog audio I/O is connected using a 25 pin SubD connector. (25 Pin SubD breakout adapter PCB can be purchased seperately).

Audio groups are selected using the rotary switches, and its 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 "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.

SDI Fiber Transmitter Options		
Model	Description	Power
OH-TX-1-LC / ST / SC	SFP Fiber TX - Singlemode - LC, ST or SC conn. - 10km	-5dBm (1310nm)

SDI Fiber Receiver Options		
Model	Description	Sensitivity
OH-RX-1-LC / ST / SC	SFP Fiber RX - Singlemode - LC, ST or SC connector	-16dBm

SDI Fiber Transceiver Options			
Model	Description	Power	Sense
OH-TR-1-LC	SFP Fiber RX/TX - Singlemode, LC Connector - 10km	-5dBm	-18dBm
OH-TR-0-850-MM	SFP Fiber RX/TX - Multimode, LC Connector - 300m	-5dBm	-15dBm

SDI Fiber Bidirectional Transceiver Options			
Model	Description	Power	Sense
OH-BD-1-1310-LC	SFP Fiber BiDi TR - Singlemode, LC Connector, 1310nm	-5dBm	-16dBm
OH-BD-1-1550-LC	SFP Fiber BiDi TR - Singlemode, LC Connector, 1550nm	-5dBm	-16dBm

SDI CWDM Fiber Transmitter Options		
Model	Description	Power
OH-TX-4-XXXX-LC	CWDM SFP Fiber TX - Singlemode LC Conn. - 40km XXXX=Wavelength. 18 according to ITU T G692.2 1270nm through 1610nm	-1dBm

SDI CWDM Fiber Transceiver Options			
Model	Description	Power	Sense
OH-TR-4-XXXX-LC	CWDM SFP Fiber RX/TX - Singlemode LC Conn. - 40km XXXX=Wavelength. 18 according to ITU T G692.2 1270nm through 1610nm	-1dBm	-20dBm

Shown with Fiber SFP Option Installed

A 1 kHz test tone generator is included for audio testing purposes.

The module is also compatible with the yelloGUI software package, which provides access to a host of additional internal settings which includes manual insertion of metadata (AFD,WSS,VI)

An SDI fiber input and output is also provided with a variety of plug in SFP options available.

Technical Specifications

SDI Input	1 x SDI video on 75 Ohm BNC connector
	SMPTE 424M, SMPTE 292M, SMPTE 259M 3G Level A & B-DL & B-DS according to SMPTE ST 425-1 and ST 425-2 (3D) with image formats 1280 x 720 and 1920 x 1080 For a detailed list of supported formats please refer to the article in our knowledge base (www.lynx-technik.com > support > tech.support)
	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 (Belden 1694A cable) 340m @ 270Mbit/s, 150m @ 1.5Gbit/s, 120m @ 3Gbit/s
Fiber I/O	(optional) 1 x fiber optic input and output (see table)
	SMPTE 297M - 2006
SDI Output	1 x SDI video on 75 Ohm BNC connector
	SMPTE 424M, SMPTE 292M, SMPTE 259M For a detailed list of supported formats please refer to the article in our knowledge base (www.lynx-technik.com > support > tech.support)
	Electrical Return Loss: >15dB from 5MHz to 1.5GHz, >10dB from 1.5GHz to 3GHz
Audio Inputs	4 x analog audio inputs on 25 pin SubD Connector (10K Ohm)
	AES group selection provided via rotary switch
Audio Outputs	4 x analog audio outputs on 25 pin SubD Connector (150 Ohm)
	AES group selection provided via rotary switch
Power	+12VDC @ 4.8W nominal - (supports 8 - 14VDC input range)
Physical	Size: 128mm x 90mm x 22mm (5.04" x 3.54" x 0.86") including connectors Weight: 200g (7.05oz)
Ambient	5 - 40°C (41 - 104°F) 90% Humidity (non condensing)
Model #	PDM 1383 - (EAN# 4250479359826)
Includes	Module, AC power supply

PDM1383-rev05 Specifications subject to change

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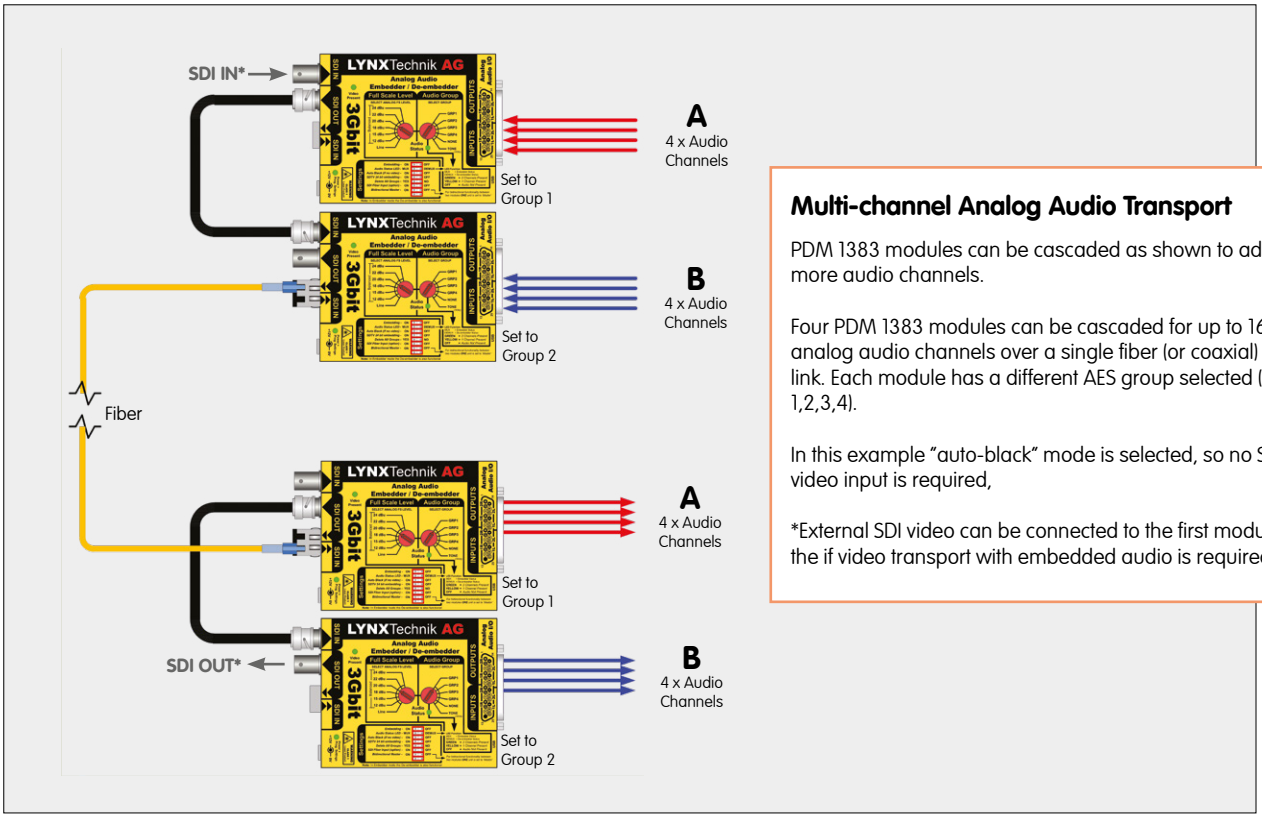
PDM 1383 Applications

The basic SDI embedding and de-embedding applications for the PDM 1383 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 multi-channel audio over fiber (or coax) without the need for dedicated audio A/D converters and external optical multiplexing. This when combined with the new "Bidirectional Master" functionality really expands the flexibility of the modules into dedicated audio applications.

Below are two examples of how the modules can be untilized for "audio only" transport over fiber.



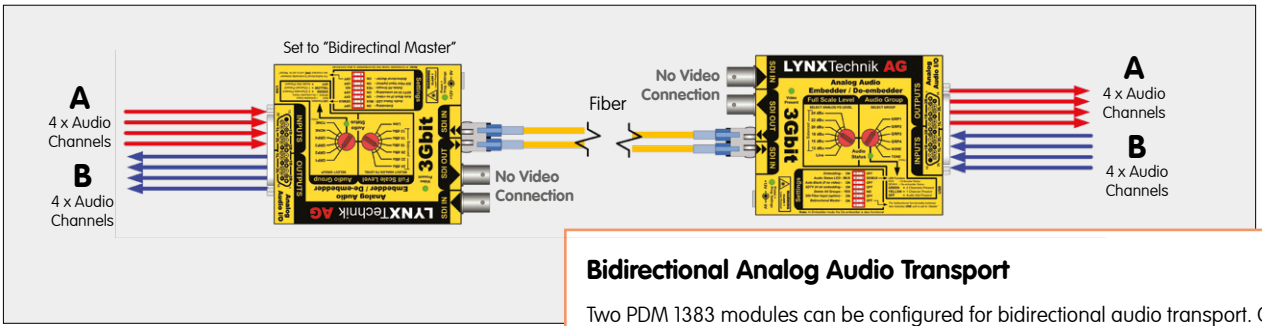
Multi-channel Analog Audio Transport

PDM 1383 modules can be cascaded as shown to add more audio channels.

Four PDM 1383 modules can be cascaded for up to 16 analog audio channels over a single fiber (or coaxial) link. Each module has a different AES group selected (AES 1,2,3,4).

In this example "auto-black" mode is selected, so no SDI video input is required,

*External SDI video can be connected to the first module in the if video transport with embedded audio is required.



Bidirectional Analog Audio Transport

Two PDM 1383 modules can be configured for bidirectional audio transport. One module is switched to be a "Bidirectional Master"
This works for audio signals only, (no external SDI video) and "auto-black" mode is used. (Note: Cascading modules is not possible in bidirectional mode)