

AES Audio Embedder / De-embedder (balanced AES)

- Simultaneous embedding and de-embedding
- SDI video formats up to 3Gbit (1080p60)
- 4 x AES inputs / outputs
- 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 present and audio status LEDs



The PDM 1284 D is a versatile AES audio embedder and de-embedder designed for a wide range of SDI video formats up to 3Gbit. It supports balanced AES3 audio I/O using a 25 pin SubD connector.

Select audio groups using the rotary switches and embed and de-embed additional audio groups by cascading two modules together. Simultaneous embedding and de-embedding means the module will de-embed and output the audio from the selected audio group before overwriting.

An optional fiber I/O adds fiber transceiver functionality for embedding and de-embedding directly from the fiber I/O. When the fiber input is used both fiber and electrical SDI outputs are provided.

The PDM 1284 D automatically detects the audio format and deactivates the sample rate converters to preserve encoded bit streams such as DolbyE. (Sample rate converters can be permanently switched off using the dip switch).

The selectable "auto black" mode uses a black video frame (in the last detected video standard) 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 application is only transporting multi-channel audio between locations either electrically or over fiber.

The selectable 1 kHz test tone generator is integrated for audio testing purposes. The module includes an LED for video present indication as well as two multi-color audio status LEDs.

Fiber I/O Options

Fiber SFP Transceiver Stick (LC)

Inserts into the Fiber SFP cage on the side of the module. Can be added at any time. Please select from below:



Wavelength	TX Power	RX Sensitivity	Max Distance	Option #
1310nm	-5dBm	-19dBm	10km (6.2miles)	OH-TR-1
1550nm	-1dBm	-19dBm	40km (24.8miles)	OH-TR-3-1550

Technical Specifications

SDI Input	1 x SDI video on 75 Ohm BNC connector SMPT 424M, SMPT 292M, SMPT 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 output LC/PC singlemode fiber connection (see table) SMPT 297M - 2006
SDI Output	1 x SDI video on 75 Ohm BNC connector SMPT 424M, SMPT 292M, SMPT 259M Multi-standard operation from 270Mbit/s to 3Gbit/s
AES Inputs	4 x AES3 balanced inputs on 25 pin SubD Connector (110 Ohm) AES group selection provided via rotary switch
AES Outputs	4 x AES3 balanced outputs on 25 pin SubD Connector (110 Ohm) AES group selection provided via rotary switch
Power	+12VDC power supply (included)
Size	105mm x 95mm x 22mm (4.13" x 3.74" x 0.86")
Model #	PDM 1284 D
Includes	Module, power supply, SubD screw terminal adapter PCB and mounting brackets

Power Adapter Options

The module **INCLUDES** an AC power supply. The power adapters below are optional.



P-TAP 1000
Use with a standard battery P-TAP power source.



XLR 1000
Use with a standard 4 pin XLR camera battery power source.

Specifications subject to change

PDM 1284 D Application

The basic SDI embedding and de-embedding applications for the PDM 1284 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.

