

## 3Gbit SDI Frame Synchronizer

- Supports SDI formats up to 3Gbit (auto-detect)
- Optional fiber I/O
- Auto changeover or GPI switch between electrical and optical input
- Robust "flywheel" synchronization for problematic sources
- "Cross lock" compatible reference input
- All 16 channels of audio de-embedded from SDI input
- Audio delayed to match video processing delay and re-embedded
- Integrated test pattern generator
- Auto-tracking audio delay
- No "pops" or "clicks" in audio even when dropping and adding frames
- Up to 30 frames of programmable delay (for timing)
- yelloGUI compatible to access additional internal settings

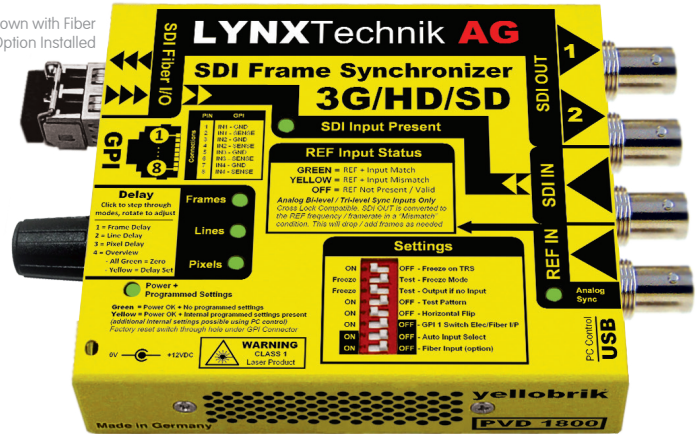
The PVD 1800 is a broadcast quality compact SDI frame synchronizer for professional applications in Broadcast, Post Production and Pro A/V markets.

The PVD 1800 features multiformat support for SDI formats up to 3Gbit/s with optional fiber optic I/O which can be configured to automatically switch between the electrical and optical input if a signal loss is detected.

Video processing utilizes robust "flywheel" synchronization that will accommodate a wide variety of low quality asynchronous SDI sources. All embedded audio is extracted and delayed automatically to match the video processing delay. Audio is free from disturbances even when dropping and adding frames. The module also provides up to 30 frames of programmable output delay, adjustable in frames, lines and pixels.

The module is fully compatible with the yelloGUI software package, so the module can be configured / controlled using a PC or MAC

Shown with Fiber SFP Option Installed



## Technical Specifications

### SDI Input

1 x 75 Ohm BNC electrical SDI input + 1 x optional fiber SDI input

Serial digital video SMPTE, 292M, 424M, 259M with automatic video format and standard detection

10 bit 4:2:2 (Y,Cr,Cb)  
**Multi-standard input.**  
 SDTV (525/625)  
 720p and 1080p (23.98/24/25/29.97/30/50/59.94/60 Hz)  
 1080i (50/59.94/60 Hz)

Electrical Return Loss: > 15dB (270Mbit), > 10dB (2.97 Gbit)

### SDI Outputs

2 x 75 Ohm BNC electrical SDI outputs. SMPTE, 292M, 424M, 259M  
 1 x optional fiber SDI output  
 SDI output follows input format

Timing Jitter: <0.2 UI @ 270Mbit/s, <1.0 UI @ 1.5Gbit/s, <2.0 UI @ 2.97Gbit/s  
 Alignment Jitter: <0.2 UI @ 270Mbit/s, <0.2 UI @ 1.5Gbit/s, <0.3 UI @ 2.97Gbit/s  
 Return Loss: >15dB (270Mbit), >10dB (2.97 Gbit)

Cable Equalization 270Mbit: Up to 340m (1.115ft) using Belden 8281  
 Cable Equalization 1.485Gbit: Up to 150m (492ft) using Belden 1694A  
 Cable Equalization 2.97Gbit: Up to 110m (360ft) using Belden 1694A

### Fiber I/O

Optional plug in SFP for optical SDI I/O (see fiber options table)  
 SMPTE 297M - 2006

### Reference Input

SDTV: Analog 525 or 625 bi-level sync  
 HDTV: All tri-level sync standards (exceptions 1080p 50/59.94/60Hz)  
 Cross lock compatible

SMPTE 274M, SMPTE 296M - 75 Ohm BNC connector

### Video Delay

Timing Adjustment: Up to 30 frames.  
 Manually adjustable in frame / line / pixel increments

### GPI

Connector: RJ45 with 4 x External GPI inputs:  
**GPI 1** - used for Electrical / Optical SDI changeover  
**GPI 2** - used to "freeze" the SDI output  
**GPI 3,4** - functions user assigned using yelloGUI application (PC)

### USB

Mini "Type B" connection used for yelloGUI PC control and firmware updates

### Power

+12VDC @ 5.5W nominal - ( supports 7 - 24VDC input range )

### Physical

Size: 138mm x 90mm x 22mm (5.43" x 3.54" x 0.86") including connectors  
 Weight: 230g (8.11oz)

### Ambient

5 - 40°C (41 - 104°F) 90% Humidity (non condensing)

### Model #

PVD 1800 - ( EAN# 4250479324596 )

### Includes

Module, AC power supply, USB cable, transport case

Specifications subject to change

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	-18dBm	
SDI Fiber Transceiver Options			
Model	Description	Power	Sense
OH-TR-1	SFP Fiber RX/TX - Singlemode, LC Connector - 10km	-5dBm	-16dBm
OH-TR-0-850	SFP Fiber RX/TX - Multimode, LC Connector - 300m	-5dBm	-15dBm
SDI CWDM Fiber Transmitter Options			
Model	Description	Power	
OH-TX-4-XXXX	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	CWDM SFP Fiber RX/TX - Singlemode LC Conn. - 40km XXXX=Wavelength. 18 according to ITU T G692.2 1270nm through 1610nm	-1dBm	-20dBm