

12G-SDI Frame Synchronizer

LYNX | Centraal™

yelloGUI✓

- Supports SDI 12G/6G/3G (level A+B)/HD/SD formats (auto-detect)
- Converts between 3G Level A and B Dual Link or vice versa
- Optional fiber I/O
- Robust “flywheel” synchronization for problematic sources
- “Cross lock” compatible reference input
- Integrated test pattern generator
- Up to 30 frames of programmable delay

The PVD 1400 is a broadcast quality compact SDI frame synchronizer for professional applications in the Broadcast, Post Production and Pro AV industry.

The frame synchronizer utilizes robust “flywheel” algorithms 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. 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 and LynxCentraal, so the module can be configured, controlled and updated using a PC or MAC.



Shown with Fiber SFP Option Installed

GPI Connectors

The PVD 1400 has four GPI connectors split into four sense and ground pairs. Bridging these connections forces the corresponding settings to apply, overwriting settings set via LynxCentraal or yelloGUI. By default the connections are open.

Input Switchover	In 1	Open	BNC In
		Closed	SFP In
Force Freeze	In 2	Open	Do not Freeze Output
		Closed	Freeze Output

Fiber Options

Model	Description	Power	Sens
SDI Fiber Transceiver Options			
OH-TR-12G-LC	SFP Fiber RX/TX - Singlemode, LC connector - 10km	-5...+0.5 dBm	-10dBm (12G/6G) -14dBm (3G/1.5G)
OH-TR-1-LC	SFP Fiber RX/TX - Singlemode, LC connector - 10km	-5dBm	-16dBm
OH-TR-0-850-MM	SFP Fiber RX/TX - Multimode, LC connector - 300m	-5dBm	-15dBm
SDI CWDM Fiber Transceiver Options XXXX=Wavelength. 18 according to ITUT G692.2 1270 - 1610nm			
OH-TR-12G-XXXX-LC	12G CWDM SFP Fiber RX/TX - Singlemode LC conn. - 10km	-2...+3 dBm	-15dBm
OH-TR-4-XXXX-LC	3G CWDM SFP Fiber RX/TX - Singlemode LC conn. - 40km	-1dBm	-20dBm
SDI Fiber Transmitter Options		Power	
OH-TX-1-LC / ST / SC	SFP Fiber TX - Singlemode - LC, ST or SC conn. - 10km - (1310nm)	-5dBm	
SDI Fiber Receiver Options		Sensitivity	
OH-RX-1-LC / ST / SC	SFP Fiber RX - Singlemode - LC, ST or SC connector	-18dBm	

Other modules available on request

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

Supported Formats	SD 525i 59.94
	SD 625i 50
	HD 720p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
	HD 1080i 50, 95.94, 60
	HD 1080psf 23.98, 24, 25
	HD A 1920x1080p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
	HD B-DL 1920x1080p 47.95, 48, 50, 59.94, 60
	2K 2084x1080p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
	2K B-DL 2048x1080p 47.95, 48, 50, 59.94, 60
	UHD 3840x2160p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
	4K 4096x2160p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
Supported Standards	SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 2081-1, SMPTE 2082-1
Color Precision	YCbCr 4:2:2 10-bit
SDI Input	1 x 75 Ohm BNC electrical SDI input + 1 x optional fiber SDI input
	Automatic cable EQ SD: 340m HD: 140m 3G:130m 12G: 80m
SDI Outputs	2 x SDI video, 75 Ohm BNC (both have the same signal - NOT dual link)
Electrical Return Loss:	Input to 1.5GHz to 3GHz to 6GHz to 12GHz
	Output >15dB >10dB >7dB >4dB
Fiber In-/Output	Optional plug in SFP for optical SDI in-/output (see fiber options table) SMPTE 297 - 2006
Reference Input	SDTV: Analog 525 or 625 bi-level sync, black burst or colorbars HDTV: All tri-level sync standards
	SMPTE 274M, SMPTE 296M - 75 Ohm BNC connector
Frame Synchronizer	Valid reference recommended, otherwise operates in free run (async) mode. Fully cross lock compatible across standards. Up to 30 frame adjustable delay (line & pixel) using LynxCentraal or yelloGUI
Power	+12V DC @ 10.0W (excl. SFP) nominal - (supports 10 - 24V DC input range)
Physical	Size (incl. connectors): 140mm x 90mm x 22mm (5.51" x 3.54" x 0.86") Weight (excl. SFP): 207g (7.3oz)
Ambient	5 - 40°C (41 - 104°F) 90% Humidity (non condensing)
Model #	PVD 1400 - (EAN# 4250479329478)
Includes	Module, AC power supply

PVD1400_DS_rev03 Specifications subject to change

