yellobrik® PVD 1400

12G-SDI Frame Synchronizer

LYNX | Centraal™ ✓   yelloGUI ✓

Shown with Fiber
SFP Option Installed

Features

- 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

Description

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.

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

⚠ **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, 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, 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 YCbCr/RGB 4:4:4 10, 12-bit
SDI Input	1x 75 Ohm BNC electrical SDI input + 1 x optional fiber SDI input

SDI Input Automatic cable EQ	SD: 340m	HD: 140m	3G:130m	12G: 80m

SDI Outputs	2x SDI video, 75 Ohm BNC (both have the same signal - NOT dual link)

Electrical Return Loss:

	to 1.5GHz	to 3GHz	to 6GHz	to 12GHz
Input	>15dB	>10dB	>7dB	>4dB
Output				

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 reccomended, otherwise operates in free run (async) mode. Fully cross lock compatible across standards. Up to one 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 - 40ºC (41 - 104ºF) 90% Humidity (non condensing)
Model #	PVD 1400 - (EAN# 4250479329478)
Includes	Module, AC power supply

LYNXTechnik | Broadcast Television Equipment
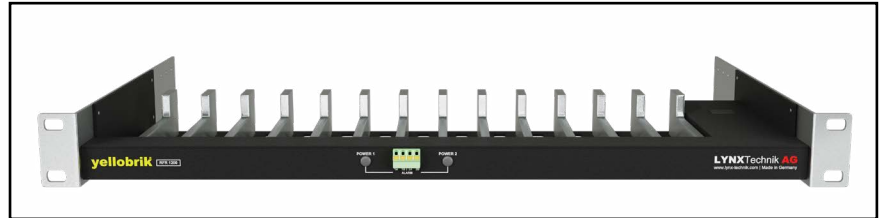
www.lynx-technik.com

Optional Accessories

Rack Frames

This yellobrik can be placed in a rack frame along others to build increasingly complex systems, all monitored and controlled with a rack controller (RCT 1012) and server module (SRV 1000) via a PC or MAC using LynxCentraal.

The RFR 1200 offers additional power redundancy with GPI alert. It automatically closes a connection between the A and B terminals on power failure.

The RPS A100 is a 100W power supply, which can be mounted at the rear end of the RFR 1200 with an RXT 1001 power supply holder for rack frames.

RFR 1200: yellobrik Rack Frame
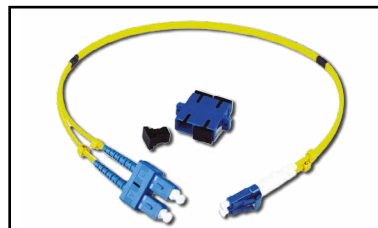

RPS A100: 100W Power supply

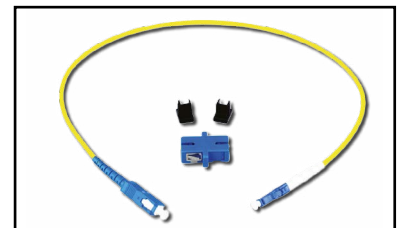**RXT 1001:** Power Supply Holder

Fiber Adapter Cables

While some of our products offer LC, ST and SC fiber connectors, most SFPs in our product range offer LC fiber connectors.

To still allow the necessary flexibility in a professional setting we offer patch cables to convert LC to ST or SC fiber connections. These patch cables' insertion less and return loss are manually checked for each individual cable to allow for maximum precision when calculating the optical budget
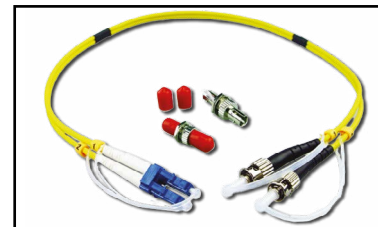
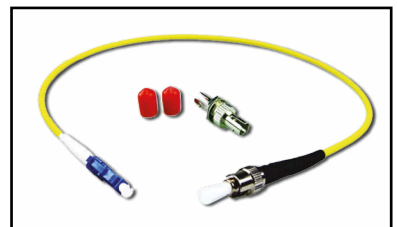Besides the selection here we offer LC/FC and LC/LC patch cables.

LC/SC Dup: LC/SC Duplex adapter cable

LC/SC Sim: LC/SC Simplex adapter cable

LC/ST Dup: LC/ST Duplex adapter cable

LC/ST Sim: LC/ST Simplex adapter cable

Fiber I/O Options:

A wide range of SFP modules are available for this yellobrik. The selection listed here shows the most likely SFP modules for most typical setups.

More SFP modules are available. To find the perfect solution for your setup visit lynx-technik.com for more information or contact us.

Model	Description	Power	Sens
SDI Fiber Transceiver Options		Power	Sens
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 ITU T G692.2 1270 - 1610nm		Power	Sens
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