yellobrik®

PVD 1400

LYNX | Centraal™ ✓ yelloGUI ✓

12G-SDI Frame Synchronizer



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 256 frames (5 sec) of programmable delay in HD
- Up to 64 frames (1 sec) of programmable delay in 4K/UHD

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 provides up to 64/256 frames of programmable output delay depending on formats, adjustable in frames, lines and pixels.

The module is fully compatible with yelloGUI and LynxCentraal, allowing configuration, control, and firmware updates from a PC or Mac.

GPI Connectors

The PVD 1400 has four GPI connectors arranged as Sense/Ground pairs. Connecting a Sense pin to its corresponding Ground pin applies the associated setting, overriding the configuration set in LynxCentraal or yelloGUI. All GPI connections are open by default.

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	1080p	23.98, 24, 25, 29.97, 30, 50, 59.94, 60		
	HD	B-DL	1080p	47.95, 48, 50, 59.94, 60		
	2K		1080p	23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60		
	2K	B-DL	1080p	47.95, 48, 50, 59.94, 60		
			2160p	23.98, 24, 25, 29.97, 30, 50, 59.94, 60		
	4K		2160p	23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60		
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					
	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:	Input	to 1.5GHz >15dB	to 3GHz >10dB	to 6GHz >7dB	to 12GHz >4dB	
	Output					
Fiber I/O	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 & Delayer	Free-run (asynchronous) mode when no valid reference is available Fully cross lock compatible across standards Adjustable delay in frame, line and pixel: 256 frames (up to 5 sec) video and 20 sec audio delay in 1080 i/p 64 frames (up to 1,2 sec) video and 10 sec audio delay in 4K, UHD, 720, SD 4:4:4 video formats are limited to 32 frames video and 10 sec audio delay					
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					

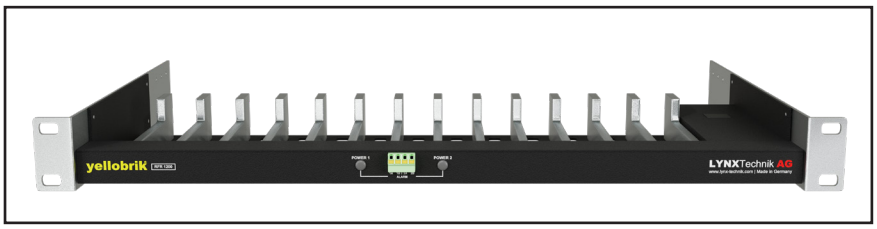
Optional Accessories

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.

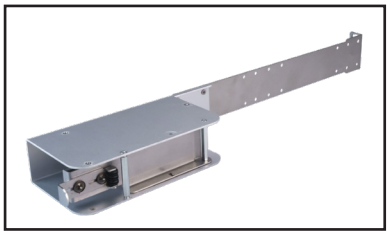
The RPS A100 is a 100W power supply, which can be mounted at the rear end of the RFR 1200 with an RXT 1001 or RXT A100 power supply holder for rack frames.



RFR 1200: yellobrik Rack Frame



RPS A100: 100W Power supply



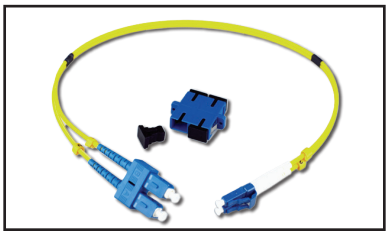
RXT 1001: Power Supply Holder

Fiber Adapter Cables

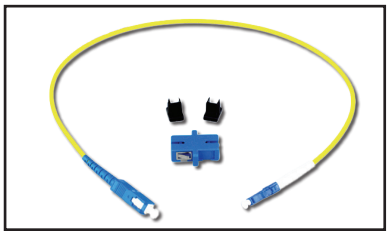
While some of our products offer LC, ST and SC fiber connectors, most SFPs in our product range offer LC fiber connectors.

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

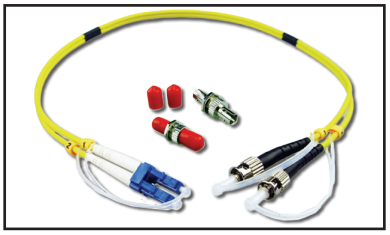
Besides the selection here we offer LC/FC and LC/LC patch cables.



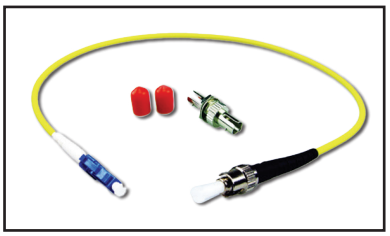
LC/SC Dup: LC/SC Duplex adapter cable



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 SFP Options

A wide range of SFP modules are available for this yellobrik. For more information and to find the best solution for your application, visit lynx-technik.com or contact us.

The selection listed here shows the most likely SFP modules for typical setups.

SDI Fiber Transceiver Options		Power	Sens
OH-TR-12G-LC	12G-SDI SFP Fiber RX/TX - Single-mode, LC connector - 10km	-3dBm	-10dBm
OH-TR-1-LC	3G-SDI SFP Fiber RX/TX - Single-mode, LC connector - 10km	-5dBm	-16dBm
OH-TR-0-850-MM	3G-SDI SFP Fiber RX/TX - Multi-mode, LC connector - 300m	-5dBm	-15dBm
SDI CWDM Fiber Transceiver Options		**Power**	**Sens**
OH-TR-12G-XXXX-LC	12G-SDI CWDM SFP Fiber RX/TX - Single-mode LC conn. - 10km	0dBm	-15dBm
OH-TR-4-XXXX-LC	3G-SDI CWDM SFP Fiber RX/TX - Single-mode LC conn. - 40km	-1dBm	-20dBm
SDI Fiber Transmitter Options		**Power**	
OH-TX-12G-LC	12G-SDI SFP Fiber TX - Single-mode - LC conn. - 10km	-3dBm	
OH-TX-1-LC / ST / SC	3G-SDI SFP Fiber TX - Single-mode - LC, ST or SC conn. - 10km	-5dBm	
SDI Fiber Receiver Options		**Sensitivity**	
OH-RX-12G-LC	12G-SDI SFP Fiber RX - Single-mode - LC connector	-10dBm	
OH-RX-1-LC / ST / SC	3G-SDI SFP Fiber RX - Single-mode - LC, ST or SC connector	-18dBm	