

P VD 3010 D

SERIES 3000

MiniModules

Media Processor / Synchronizer

Description

The P VD 3010 D is a high quality frame / line synchronizer and programmable delay designed for broadcast and professional applications. The SDI input can be synchronized to external sync with a minimum delay of 1 line (line mode) or 1 frame (frame mode) to a maximum of 6 frames adjustable in increments of frames, lines and pixels. Internal video Proc Amp provides adjustment of Gain, Sat, Hue and Pedestal. A separate delay output is provided for external audio

delay processing. With the addition of the P MX DX audio processing option one audio group can be de-embedded, delayed to match the video with swap, mute and phase adjustments. Also adding the P VD AP option will provide external AES I/O capability plus adjustable audio gain. Advanced audio processing results in no audible "pops" and "clicks" even when frames are dropped or added. Remote control and status monitoring possible when used with a LYNX controller option.

Key Features

Selectable frame or line synchronization mode of operation.

Dual standard operation (525/625)

Delay range of 1 line min (line mode) or 1 frame min (frame mode) to 6 frames max in 37ns increments

Delay output pulse for sync of external audio delay processor.

Video processing provides controls for Gain, Hue, Sat, Pedestal.

P MX DX Audio option adds internal audio processing for one embedded audio group.

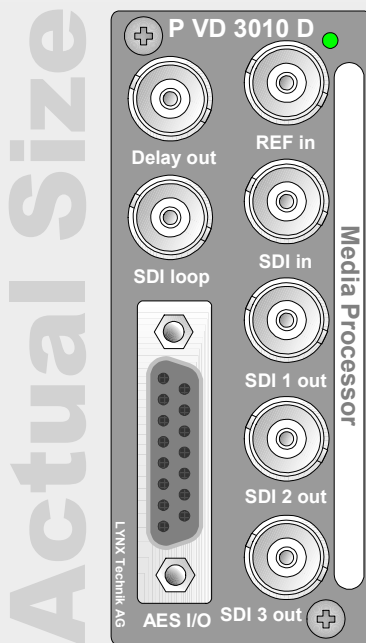
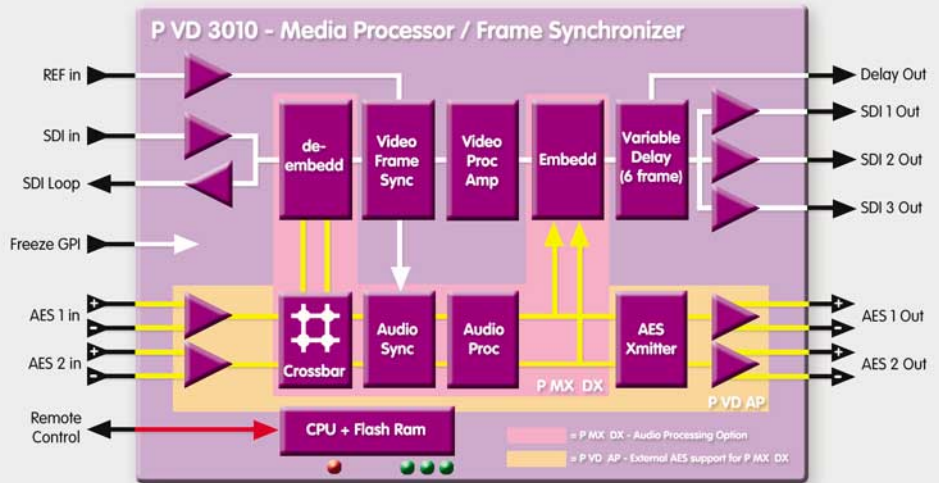
P VD AP option adds external AES input / output capability (in addition to embedded support from the P MX DX option).

No audio "Pops and Clicks" when frames dropped / added.

Local DIP-switch, push buttons and LED's for local control and status monitoring

Microprocessor controlled with Flash ram storage for module settings

Remote control interface



PROCESSING

Processing

Media Processor / Synchronizer

This module is part of the 3000 series of MiniModules, which offer high quality and flexibility in a very small form factor ideal for applications where space is at a premium. The modules can be used either stand alone using the optional power supply brick or

as part of a tightly integrated space saving system where up to 10 MiniModules can be mounted using the optional R FR 3005 rack frame, with optional expansion for redundant power and remote control using one of the LYNX controllers and control software.

Specifications

Video Inputs

Signal	1 x SDI input (SMPTE 259M-C) ,with active loop through
Input Impedance	75 Ohms
Connection	BNC
Cable Length	250m Belden 8281 (270Mbit/s)
Return loss	> 15dB (270 MHz)

Reference Input

Signal	Composite analog sync
Input Impedance	75 Ohm, BNC connection

Video Outputs

Signal	3 x SDI (SMPTE 259M-C)
Output Impedance	75 Ohms, BNC connection
Return Loss	> 15dB (270 MHz)
Jitter	< 0.2ui

Delay Output

Signal	5V TTL positive pulse
Output Impedance	75 Ohms, BNC connection

Operating Modes

Frame	Frame Synchronizer mode
Line	Line Synchronizer mode

P MX DX - Embedded Audio Option

Input	De-embed 1 AES group (2 x AES) selected from input SDI stream (group 1..4 selectable)
Operations	Audio delay and synchronization to match video. Additional functions include: channel swap, invert, phase and mute.
Outputs	Embed 1 x AES group back into SDI output (group selectable 1..4)

P VD AP - External AES Option (Requires P MX DX option)

Input	2 x AES3 balanced inputs.
I/O Connections	SubD 15 female, 100 Ohm (balanced)
Output	2 x AES3 balanced outputs.
Function	Provides external AES I/O capability and adjustable audio gain in addition to embedded audio support and processing functions provided by P MX DX option. (Note. P MX DX optio is required)

Performance

Adjustment range	1 line min (line mode) or 1 frame min (frame mode) to 6 frames max adjustable in frames, lines and pixel increments.
Status Monitoring	Local LEDs and /or using lynx controller option
Control	Local switches and or using lynx controller option
Proc Amp	Adjustable Saturation, Gain, Hue and Pedestal *

Electrical Specifications

Operating Voltage	+ 5VDC
Power Consumption	6 W
Connection	DC input via 5 pin locking bayonet connector
Safety	IEC 950/ EN 60950/VDE 0805

Mechanical

Size	85.5mm x 35.3mm x 38.7mm + connectors
Weight	250g

Ambient

Temperature	5°C to 35°C Maintaining specifications, -20°C to +70°C storage
Humidity	Max 80% non condensing

* Note. Adjustments to these parameters requires the use of a LYNX Controller option or the RCT 3000 Service Adaptor and Control Software.

Options

Audio Options

P MX DX	Embedded audio and internal audio processing option
P VD AP	External AES input / output (requires P MX DX option)

Power Supply Options

R PS 3001 E	External power brick - wall plug style. (Europe)
R PS 3001 U	External power brick - wall plug style (USA)
R PS 3001-3	In-line power supply - suitable for all regions
R PS 3004	In-line supply for 4 MiniModules - suitable for all regions

Mounting Solutions

R FR 3000	Wall mounting brackets for individual MiniModules (5 sets)
R FR 3004	Wall mount for 4 MiniModules
R FR 3005	19" rear rack mount plate for 10 MiniModules
R FR 3010	Central power supply and control chassis
R PS 5010	Redundant power supply for R FR 3010

Adapter Cables

R PS C 15	DC power and control extension cable (1.5m)
R PS C 25	DC Power and control extension cable (2.5m)
R AC M15-4	SubD > 4 x XLR male audio adapter cable (1m)

Controllers

R CT 3000	Service Adaptor and control software for single modules
R CT 5020	Rack Controller and control software
R CT 5010	Rack Bus Expander
R CT 5030	Master Controller

Note.

Local controls on the module allow for basic set up and configuration, which is suitable for most applications. Access to extended feature sets requires the use of a controller option or the RCT 3000 Service Adaptor and control software.