Model 8400

Video Processing Frame Synchronizer

The 8400 Digital Video Processing Frame Synchronizer is the total solution for standard definition digital video and digital audio processing.

Total Flexibility

The flexible architecture of the 8400 makes it a multipurpose, "Do Anything in Digits," module. Uncompromising attention to image quality and fidelity means that it does what you need it to do and keeps your signals pristine.

The 8400 has SDI I/O. In between those inputs and outputs is a rugged frame synchronizer and a powerful proc amp. An infinitely adjustable timing system genlocks to your house reference. An optional audio processor and an optional Digital Noise Reducer round out the 8400 module.

Uncompromised Pictures

The SDI input is carried at full uncompressed bandwidth throughout the entire module, and EDH monitoring of the digital input alerts you to any incoming problem. Complete control over signal levels is provided.

Solid Frame Synchronizer

Input video is synchronized to your house reference by the 8400's built-in Frame Synchronizer. It's the perfect serial digital frame sync. On loss of input, the output can mute to black or freeze on the last good frame of video.

Complete Proc Amp Functions

The 8400 has a full-featured Proc Amp for adjustment of every signal parameter. Proc controls include Video and Chroma Gain, NTSC-style hue rotation, Black Balance, and pedestal. Black and White clips can be set to prevent excessive signal excursions.

A Detail Enhancer recovers information that has been lost due to poor frequency response in upstream systems. Certain values represented in serial digital component may be illegal in the PAL or NTSC composite domains. The Predictive Composite Clipper mode identifies picture elements that would be illegal in analog composite, and limits color saturation and luminance excursions. You can be confident that the work you're doing in digital component will look its best when it's viewed in composite.

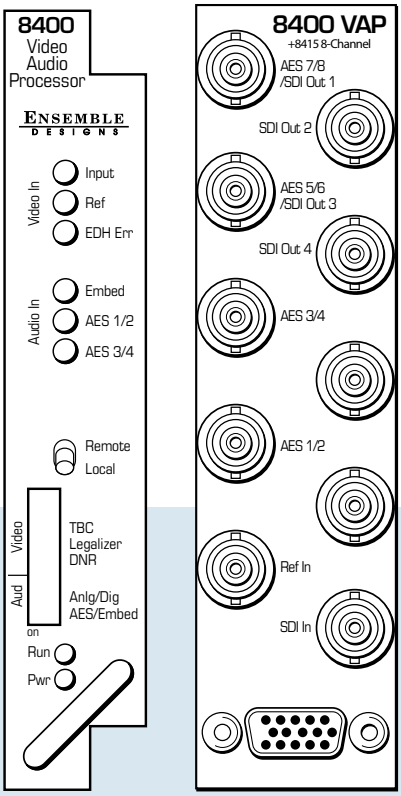
Selective (toothed) vertical blanking lets you choose to pass or strip content in the vertical interval on a line-by-line and field-by-field basis. To help optimize the settings in the Proc Amp, a Split Screen mode allows you to compare the processed output with the original material.

Total Control

Every function and parameter of the 8400 can be controlled from an Express Panel, Avenue Touch Screen, or the Avenue PC Control Application. Memory registers can be used to save the complete configuration of the module, making it easy to change instantly between different configurations.

Channel Density

Ten 8400 Video Processors (including both an audio and DNR Option) can be accommodated by the Avenue 3RU Frame. Now that's an efficient use of real estate!



www.ensembledesigns.com
tel 530.478.1830

Serial Digital Input

Signal Type	SMPTE 259M-C
EDH	Fully compliant
Impedance	75 Ω
Return Loss	>15 dB
Max Cable Length	300 meters Belden 1694A
Automatic Cable Input Equalization	

Reference Input

Number	One external
	One internal Master Timing Ref
Signal Type	1 V P-P Composite Video
	PAL or NTSC
Impedance	75 Ω
Return Loss	>40 dB

SDI to SDI Performance

Passes entire SDI signal from input to output, including embedded audio and all other ancillary data

Serial Digital Output

Number	Two
Signal Type	SMPTE 259M-C
EDH	Fully compliant
Impedance	75 Ω
Return Loss	>15 dB
Output DC	None (AC coupled)

General Specifications

Power Consumption	10 watts (with both options installed)
Temperature	0 to 40°C ambient (all specifications met)
Relative Humidity	0 to 95%, noncondensing
Altitude	0 to 10,000 ft

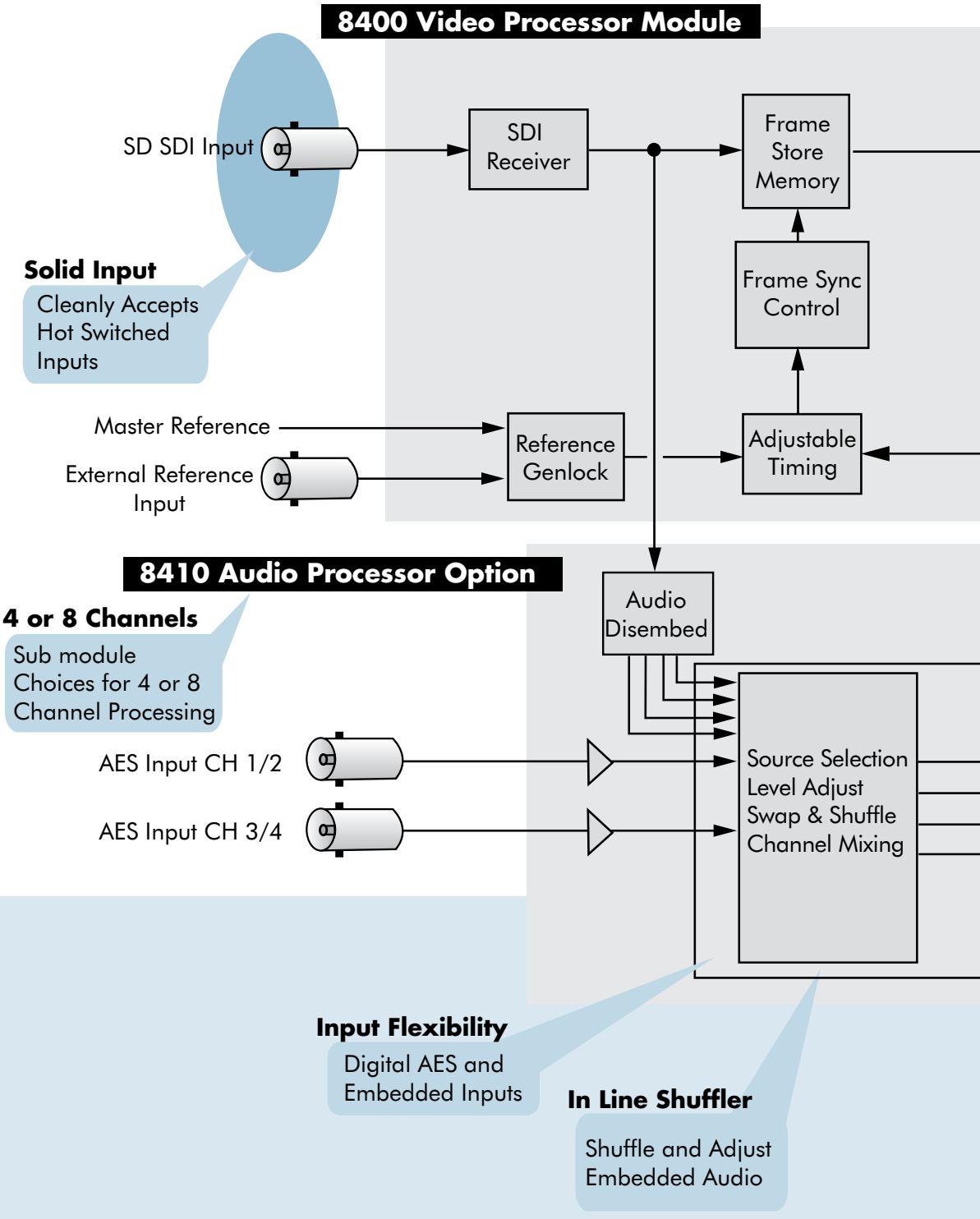
Features

- SD SDI Serial Digital I/O
- Full-featured Frame Synchronizer
- Comprehensive Proc Amp controls
- Sharpness Filter
- Black and White Clips
- Line-Selectable toothed blanking
- Split Screen Mode
- External genlock reference input
- EDH Detection and Insertion
- Internal Color Bar Generator
- Automatic 525/625 switching
- Total control through the Avenue control system
- Memory Registers
- Compatible with the full Avenue line
- 10 complete channels in just 3RU
- Accepts the 8410, 8415 or 8510 Audio Processor options for tracking audio delay, audio mixing, shuffling
- 4- or 8-channel Audio option
- Accepts the 8520 Digital Noise Reducer option

Avenue 8400 Video and Audio Processor

Features

- » Digital input
- » Digital outputs
- » Frame Sync
- » Legalizer
- » Proc Amp
- » Digital Noise Reducer option
- » Passes embedded audio
- » Embedded Audio Processing option
- » 4 or 8 channels
- » Tracking Audio Delay option
- » Audio Automatic Gain Control option



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8520 DNR Option

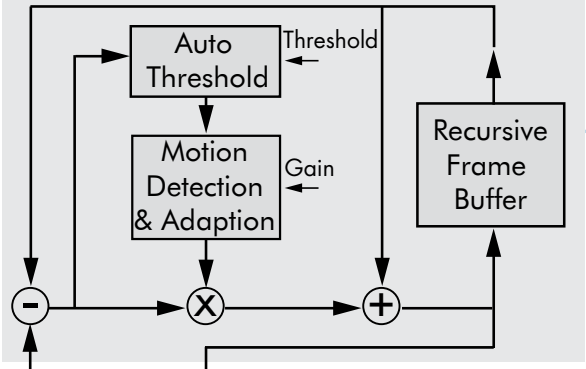

Image Quality

MPEG Preprocessing
Image Cleanup

LOS Handling

On Loss of Input, Output Can Freeze or Mute to Black

Video Processing Amplifier

- Gains
- Pedestal
- Hue
- Detail
- Legalizer
- White Clip
- Black Clip
- Chroma Clip
- Selective Blanking
- Black Balance

Serializer

SD SDI Output

SD SDI Output

Module Control µProc

Avenue Control System

Express Panel

Adjust Any Parameter
Dedicated Knobs for
Proc Adjustments

Audio Embed

Auto Tracking Audio Delay

Output Routing

4 Ch Analog Audio

AES Output Ch 1/2

AES Output Ch 3/4

Audio Horsepower

Control All Levels
Mix, Swap and Shuffle
any input to any output

Perfect Lip Sync

Automatically Tracks the Delay
Imposed by Video Frame Sync