

PATHFINDER

Matrix Switchers



FSR

Video Products Group

PATHFINDER



INTRODUCTION

The Pathfinder Matrix Switcher family is a ground-up development aimed at bringing new capabilities and a new level of performance to matrix switching.

In order for a display to accurately reproduce the original image, every component in the video system must have enough bandwidth to carry the signal and be as flat as possible in order to maintain the clarity and color fidelity. The Pathfinders set a new standard in both areas.

Very High Bandwidth and Very Flat

The HD Component and RGB models feature greater than 600MHz@-3dB bandwidth with +/- 1.0 dB flatness making the Pathfinders the highest bandwidth and flattest matrix switchers on the market.

For Composite and S-Video users, the Pathfinders offer 200MHz@-3dB bandwidth with +/- 0.5dB flatness to 150MHz.

FSR's optional cable length equalization feature allows the user to adjust for signal loss on both the input and output sides of the Pathfinder taking the worry out of longer cable run applications. The settings are easily programmed from the unit's front panel or via RS-232 commands. ("EQ and EQA units only"-see charts on back page).

Future Proof

The newest feature to be added to the Pathfinders is Split Mode Switching. This allows each color channel to be switched independently. Take an 8x8 RGBHV matrix as an example. Inputs 1-4 could be assigned to be RGB while the Red channel on inputs 5-8 can be composite while the Green and Blue channels on inputs 5-8 are S-Video. This allows one physical matrix switcher to perform the duties of several units saving money by ensuring that the switching capabilities are present as video types and resolutions are upgraded in the future.

Size Matters

The Pathfinders are available in sizes from 8x4 to 16x16 including 12x8 and 16x8. Chassis sizes are optimized based on matrix sizes and video types to save as much space as possible in the rack.

HD and Stereo Audio

Pathfinders are available for composite, S-Video, HD component and RGBHV. The stereo audio option provides balanced and unbalanced stereo audio switching with independent input trim control and output volume control. Independent input gain switches allow unity or +14 dB gain settings for each input to maintain optimal S/N ratio.

The Outside World

The Pathfinder command set is an easy to follow, easy to implement ASCII command set that gives control systems complete access to all functions. Each unit is equipped with an RS-232 serial port along with an IP port for today's remote communications and tomorrow's.

KEY FEATURES

- Very High and Very Flat Bandwidth
- Sizes to Fit the Install 8x4, 8x8, 12x8, 16x8 and 16x16 Sizes Available Composite, S-Video, Component and RGBHV Video Types
- HD Compatible 720p, 1080i, 1080p and 2k by 1k Digital Cinema
- Split Mode Switching
- Optional Balanced Stereo Audio +/-10 dB Input Trim Pro / Consumer Pad -45 to +5 Output Volume Control
- Genlock Input
- Optional Cable Length Equalization
- Protected Button Labels
- 32 Global or Selective Output Presets
- RS-232 and IP Remote Control

APPLICATIONS

- Video Room Combining
- K-12 and Higher Ed
- Houses of Worship
- Control Rooms
- Planning, Deployment and Monitoring Centers
- Courtrooms
- City Government Centers

FSR Inc.

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LIT1169A

TECHNICAL SPECIFICATIONS

	Composite and S-Video	Component and RGBHV
Matrix Sizes	8x4, 8x8, 12x8, 16x8 and 16x16	
Connector Type	Female BNC	
Bandwidth Fully Loaded @0.7Vpp	200MHz at -3dB	600MHz at -3dB (550 MHz @ -3dB on 8x4 models)
Flatness	+/- .5 dB to 150MHz	+/- 1.0dB to 300MHz
Gain	Unity	
Impedance	75 Ohm	
Level	.7V Nominal, 2V Max p-p	

Sync		RGBHV Only
Input Level		.5V to 5V p-p 4V Nominal
Output Level		TTL 2.4V into 75 Ohm Load
Impedance		75 Ohm
Polarity		Same as Input
Cable Equalization	N/A	Available on EQ models

Audio	<i>Optional</i>	<i>Optional</i>
Input and Output #	Match Video Matrix	
Type	Balanced	
Connector	5 Position Pluggable Captive Screw Terminal	
Frequency	20Hz to 20KHz	
HD + Noise	.05% at 1KHz at Max rated output	
S/N Ratio	>90dB	
Impedance	Input: 10K Ohm Output: 50 Ohm	
Max Level	Input and Output: +22dBm	
Input Gain Switch	0/ +14 dB Switchable by Input	
Input Trim Range	+/-10 dB by Input	
Output Volume Range	-45 to +5 dB by Output	

Model	RU
PFD-8x4-RGB	3
PFD-8x4-RGBA	3
PFD-8x8-C	2
PFD-8x8-CA	2
PFD-8x8-S	2
PFD-8x8-SA	2
PFD-8x8-HD	3
PFD-8x8-HDAEQ	3
PFD-8x8-HDA	3
PFD-8x8-HDAEQ	3
PFD-8x8-RGB	3
PFD-8x8-RGBAEQ	3
PFD-8x8-RGBA	3
PFD-8x8-RGBAEQ	3

RU = Rack Unit

Model	RU
PFD-12x8-C	2
PFD-12x8-CA	2
PFD-12x8-S	2
PFD-12x8-SA	2
PFD-12x8-HD	3
PFD-12x8-HDEQ	3
PFD-12x8-HDA	3
PFD-12x8-HDAEQ	3
PFD-12x8-RGB	3
PFD-12x8-RGBEQ	3
PFD-12x8-RGBA	3
PFD-12x8-RGBAEQ	3

RU = Rack Unit

Model	RU
PFD-16x8-C	2
PFD-16x8-CA	2
PFD-16x8-S	3
PFD-16x8-SA	3
PFD-16x8-HD	4
PFD-16x8-HDEQ	4
PFD-16x8-HDA	4
PFD-16x8-HDAEQ	4
PFD-16x8-RGB	6
PFD-16x8-RGBEQ	6
PFD-16x8-RGBA	6
PFD-16x8-RGBAEQ	6

RU = Rack Unit

Model	RU
PFD-16x16-C	2
PFD-16x16-CA	2
PFD-16x16-S	3
PFD-16x16-SA	3
PFD-16x16-HD	4
PFD-16x16-HDEQ	4
PFD-16x16-HDA	4
PFD-16x16-HDAEQ	4
PFD-16x16-RGB	6
PFD-16x16-RGBEQ	6
PFD-16x16-RGBA	6
PFD-16x16-RGBAEQ	6

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Specifications are subject to change without notice