

MatrixPRO™



12x4, 12x8, 16x8, 16x16 RGBHVA Matrix switchers

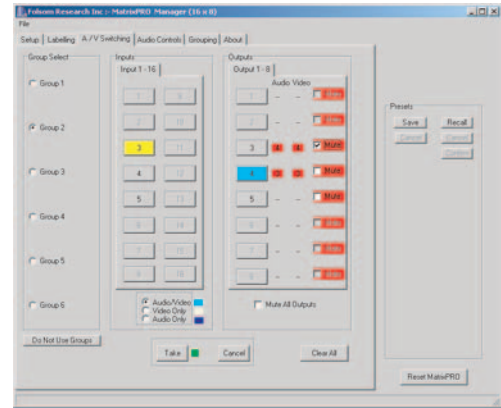
The MatrixPRO series offers four models of wideband matrix switchers for routing analog RGBHV video signals: 12x4, 12x8, 16x8, and 16x16. All inputs are universal and can accept computer (up to 1600x1200), composite, s-video, component video, HDTV, RGBHV and stereo audio. Each model provides for switching of RGBHV signals and two channel stereo audio (balanced and unbalanced). Each input and output is individually isolated and buffered. These inputs can be switched to any one or all outputs with no crosstalk or signal noise between channels.

Units are rack-mountable, and each unit includes RS-232/485 capability. 12x4 and 12x8 models come standard with the easy to operate front panel control, which allows for simple input and output selection directly from the front panel. All units can be connected to an optional Remote Control Interface that allows for remote input and output selection. An Ethernet port for IP Control is featured on all units.

The MatrixPRO series also features I/O grouping. This grouping allows the matrix to be divided into smaller sub-switchers, making installation and control easier. I/O grouping allows specific outputs to be grouped together - such as those designated for a specific video format. Each unit features Vertical Interval Switching capability to provide glitch-free switches when used with synchronous video source. RGB delay is used when video is not synchronously locked.

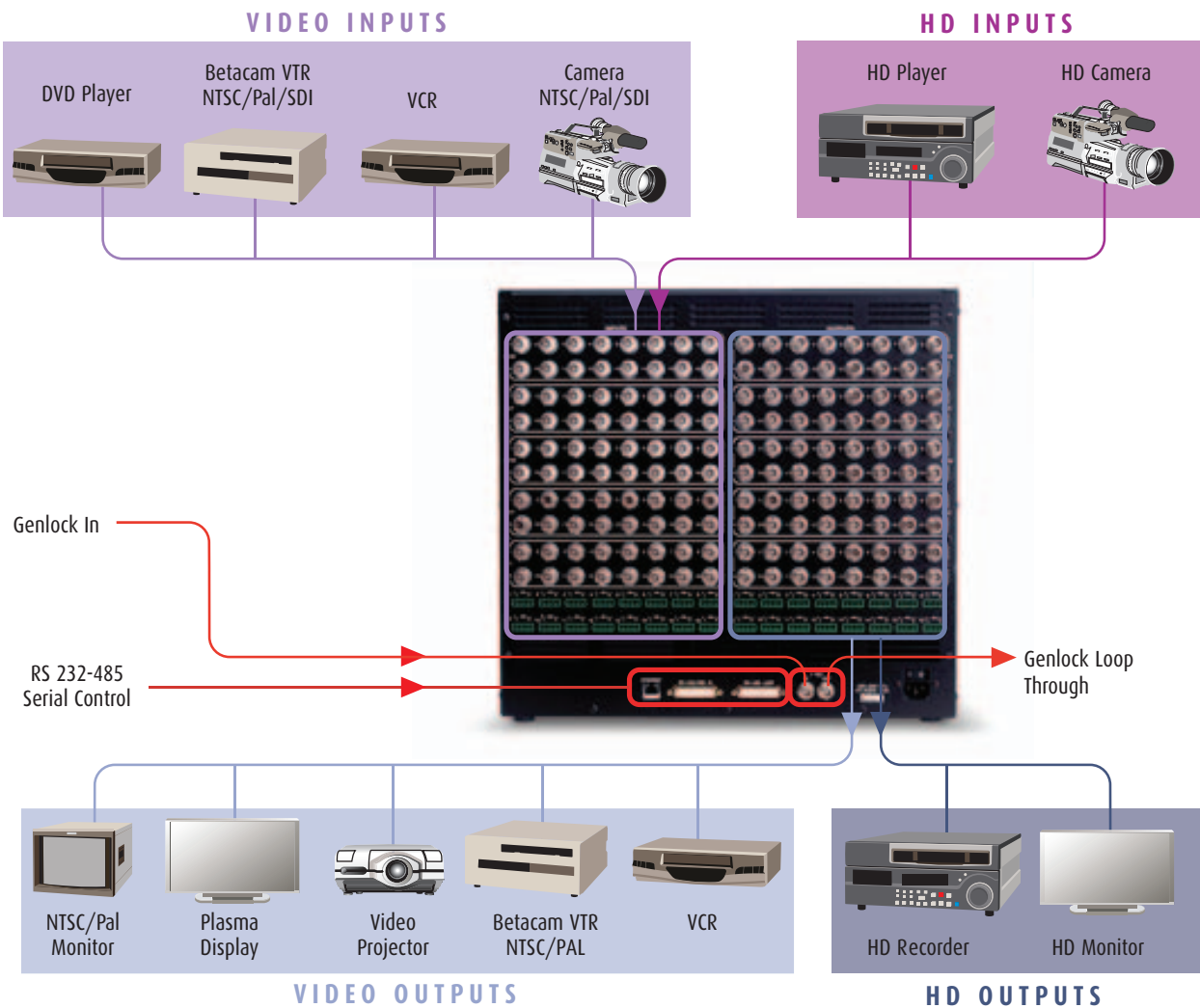
MP software

Included with each unit is a copy of Folsom's MP Control Software. A Windows®-based control program that allows you to configure and control the matrices for various applications.



MatrixPRO™ MP Control Software

MatrixPRO 16x16 connectivity diagram



Features

- Universal inputs accept computer up to 1600x1200, composite, s-video, component video, HDTV, RGBHV and stereo audio 350MHz (-3dB), minimum, ultra-wideband, fully loaded (One input driving all outputs)
- Stereo audio input and output signals balanced or unbalanced
- Volume control on a per input basis
- Mute on a per output basis
- Three switching modes: direct front panel mode for one-touch operation (12x4 and 12x8 only), MatrixPRO, a Windows®-based software, or an optional remote control interface for simple operation
- Audio follow or breakaway mode
- Output audio gain and attenuation (-84dB to +15dB)
- IP (Ethernet) control standard
- Front panel lockout mode (12x4 and 12x8 only)
- Memory presets save individual I/O configurations for recall via the front panel (12x4 and 12x8 only) or RS-232/485
- I/O grouping allows specific outputs to be grouped together making installation and control easier
- Vertical interval switching capability provides glitch-free switches when used with synchronous video source. RGB delay is used when video is not synchronously locked
- MP software a Windows®-based program for simple setup and control is supplied with each unit
- An additional RS-485 connector is supplied to allow for daisy chaining multiple matrix switchers or other Folsom devices
- Large LCD display allows for easy navigation and to provide visual verification of important information about matrix switcher settings
- Fully field programmable to support upgrades
- Backed by a full 3-year parts and labor warranty



MatrixPRO 12 x 8 Matrix Switcher

MatrixPRO specifications

VIDEO ROUTING	
Gain	Unity
Bandwidth	350 MHz (-3dB), fully loaded (one input driving all outputs)
Crosstalk	-80dB @ 1 MHz, -65dB @ 10 MHz, -55dB @ 30 MHz, -42dB @ 100 MHz
Switching speed	100 us to 4 seconds (programmable)
VIDEO INPUT	
Number/signal type	12, 16 or 32 RGBHV, RGBS, RGSB, RsGsBs, HDTV, component video, S-video, composite video
Connectors	12, 16, 32 x 5 are female
Minimum/maximum levels	Analog-0.5V to 1.85V p-p with no offset
Impedance	75 ohms
Return loss	-30dB @ 5 MHz
Maximum DC offset (Vin=1Vpp)	+1.8V, -.6V
VIDEO OUTPUT	
Number/signal type	4, 8, 16 or 32 RGBHV, RGBS, RGSB, RsGsBs, HDTV, component video, S-video, composite video
Connectors	4, 8, 16 x 5 BNC female
Minimum/maximum level	2V p-p
Impedance	75 ohms
Return loss	-30dB @ 5 MHz
DC offset	± 5mV maximum with input at 0 offset
Switching type	RGB delay up to 4 seconds
SYNC	
Input/output type	RGBHV, RGBS, RGSB, RsGsBs
Input level	0.5V to 5.0V p-p, 2.5V p-p normal
Output level	AGC to TTL: 4V to 5V p-p
Input/output impedance	75 ohms
Polarity	Positive or negative (follows input)
AUDIO ROUTING	
Gain	-84dB to +15dB
Frequency response	20 Hz to 20 kHz, ±0.05dB THD +
Noise	0.03% @ 1 kHz at rated maximum output drive
S/N	>90dB, balanced, at rated maximum output drive (21dBu)
Crosstalk	<-80dB @ 1 kHz, fully loaded stereo channel separation >80dB @ 1 kHz
CMRR	>75dB @ 20 Hz to 20 kHz
AUDIO INPUT	
Number/signal type	8, 12, 16 stereo, balanced/unbalanced
Connectors	8, 12 or 16 3.5 mm captive screw connectors, 5 pole
Impedance	10 kohm balanced or unbalanced, DC coupled
Maximum level	+19.5dBu, (balanced or unbalanced) at stated %THD+N
AUDIO OUTPUT	
Number/signal type	4, 8, 16 stereo, balanced/unbalanced
Connectors	8, 12, 16 3.5 mm captive screw connectors, 5 pole
Output gain adjustment	-84dB to +15dB, adjustable per input by RS-232/485 or front
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	±0.1dB channel to channel
Maximum level (Hi-Z)	>+21dBu, balanced or unbalanced at stated %THD+N
Maximum level (600 ohm)	>+15dBm, balanced or unbalanced at stated %THD+N ∇ NOTE: 0dBu = 0.775 volts (RMS)

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