Matrox Display Wall Controllers

Matrox PPX Series
Matrox VPX Series
Matrox SMD Series

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Matrox Display Wall Products

They say a picture is worth a thousand words. This is especially true when you're working in a mission critical environment, where seeing more information is absolutely essential. Our Video Display Wall products help you get your images—for security, traffic management control room, and many other applications—across many, many displays.
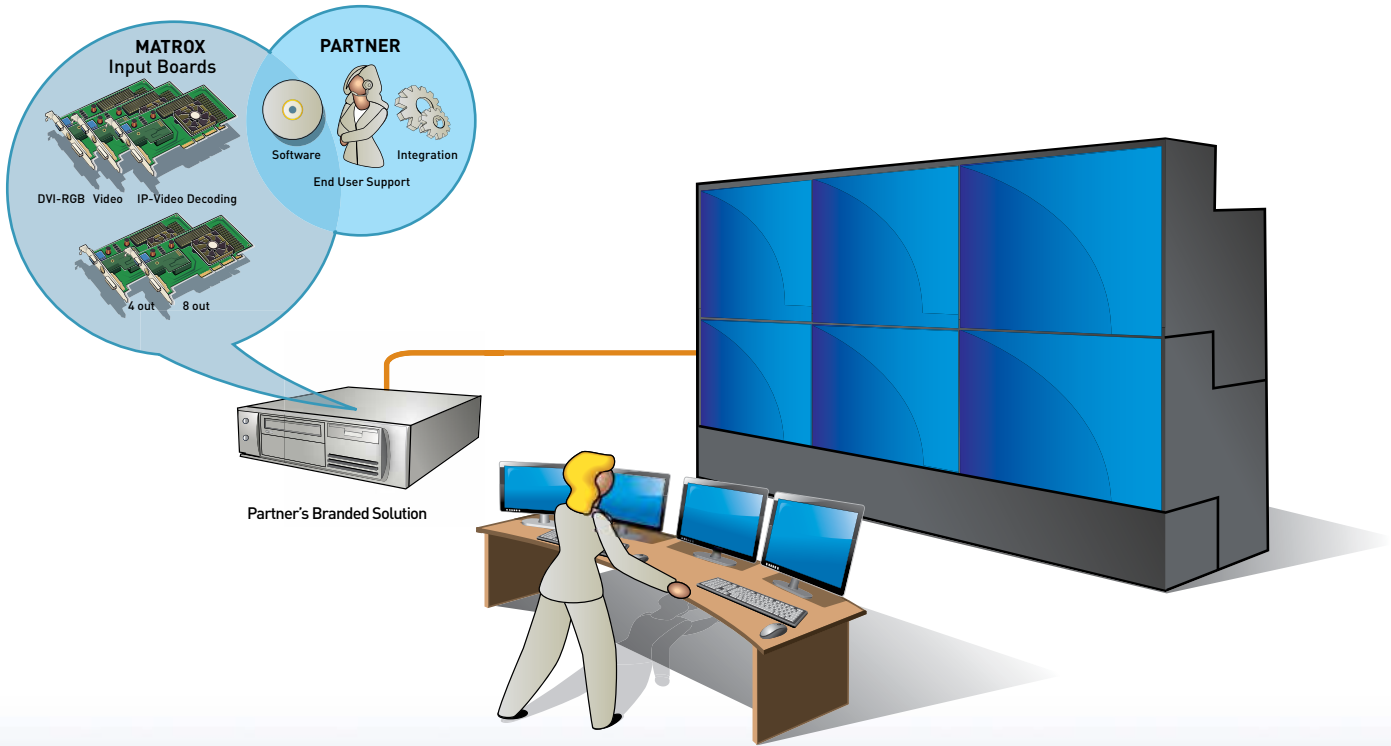
Matrox Technology

Matrox Video Display Wall products are built around many layers of innovative technology designed and owned by Matrox. At the heart of our Display Wall products is the Matrox Parhelia GPU. As one of the few companies in the world that designs GPUs, we can offer long lifecycles on our products with confidence, as well as customized features to meet a project's specific demands.

OEM Relationship

Matrox sells through our Display Wall integration partners. We focus on what we do best—providing quality products and highly specialized support from our Specialized Graphics team. Our carefully vetted partners make sure that you get the solution best suited to your needs.

It's our Display Wall partners who deliver a solution to the end user. Our partners use our SDK to write display wall management software, communicating to our boards through the Matrox Display Wall API. The final solution is an integrated product based upon Matrox technology, but tailored to meet your specific project requirements.

MATROX Input Boards

DVI-RGB Video   IP-Video Decoding

4 out   8 out

PARTNER

Software   Integration

End User Support

Partner's Branded Solution

PPX Series
Ideal for high-end video wall and data wall applications

PPX-INDVI4 Controller
Four-channel RGB/DVI capture controller

PPX-IN/VID-16 Controller
Sixteen-channel Video Wall S-Video/Composite capture controller

PPX-OUT8/OUT-4
Multi-channel Video Wall output controller

VPX Series
Ideal for medium-sized video wall and data wall applications

VPX-IN/Hybrid Controller
Multi-channel Video and RGB capture controller

VPX-IN/RGB-4 Controller
Four-channel RGB capture controller

VPX-IN/VID-8 Controller
Eight-channel S-Video/Composite capture controller

VPX-OUT8/OUT-4
Multi-channel Video Wall output controller

Feature	Benefit
Full Capture and Display in HD	• Our PPX family of products can deliver the crisp clarity of high resolution to a control room. • Capturing at up to 1920x1200@60Hz, the PPX-INDVI4 is the premier display wall RGB/DVI capture board in the industry. • The PPX-OUT4 graphics display controller board can drive resolutions up to 1920x1200, including 1080p on a display wall.
SDK with API	• The Matrox SDK provides access to our drivers, documentation, Display Wall API and sample applications with their source code. • A reliable and feature rich API allows for the development of a Display Wall Management software suite suitable for any project, from smaller AV installations or mission-critical control room environments.
Edge-Overlap and Edge-Underlap	• Manage the edges of the displayed image on your wall; account for the size of your displays' bezels or make an image displayed by multiple projectors appear seamless.
Non-Square Layouts	• Design innovative display configurations. Our display wall controller output boards support non-square display layouts, allowing you to mix monitors of different resolutions and sizes, building a layout that falls outside of a traditional rectangular desktop.
Hardware Downscale and Decimation	• Balance the bandwidth load across your display wall to maximize performance.
Over-the-Top Bus	• The PPX and VPX series of Matrox Display Wall products use an alternate, proprietary bus to transfer data between boards, offloading traffic from the host sytem.
Scalable	• Matrox products feature scalable architecture. When display wall data traffic is offloaded from the system bus, it becomes very easy to build a system with only one or two boards—or up to sixteen.
Microsoft Windows Environment	• Our Display Wall products are validated to work in either a 32-bit or 64-bit Windows XP environment. An integrator would have no problem stretching a single desktop to run a SCADA application, for instance, across 64 displays.
PCI-X	• All Matrox Display Wall products are PCI-X compatible. As display wall integrators look to build large display wall systems with many boards, PCI-X becomes a requirement.
Hardware Accelerated in IP Video Decoding	• The Matrox Streaming Media Decoder (SMD) supports the decoding and display of numerous video streams at full resolution and performance. • Supports many network video devices and codecs, with the flexibility to quickly add more per project requirements. **See SMD datasheet for more info.**

SMD Series
Adds hardware decoding capabilities for compressed video over IP and supports real-time display on a grid of display devices.

Streaming Media Decoder
Many inputs. Many outputs. Faster video streaming.

Matrox IP Link
SMD Interface card

Inputs and Outputs

Capture

- Real-time streaming through the system
- Best-in-class capture quality
    - S-Video (NTSC, PAL or SECAM)
    - RGB and DVI Capture (up to 1920x1200)
    - Compressed Network Video
        - IP Cameras and encoders

Display Options

- Cubes
- Plasmas
- LCDs
- Projectors
- Resolutions (up to 1920x1200 with certain boards)

Product Lineup – Quick Reference Guide

	Product Lines	
Display Boards	**PPX**	**VPX**
Max. number of Boards	No Limit	2
Max. number of Channels	64	16
Edge Overlap Support	Yes	No
Max. Output Resolution	1920x1200	1400x1050
Inter-board Communication	Linkport	Linkport
SMD Support	Yes	Yes
Capture Boards	**PPX**	**VPX**
Max. number of Boards	No Limit	2
Max. number of S-Video/ Composite Channels	No Limit	16
Max. Number of DVI Channels	No Limit	N/A
Max. Number of RGB Channels	No Limit	8
Max. Capture Resolution	1920x1200@60 Hz*	1280x1024@30Hz

* *Reduced timings*

Family	Product	Model Number	Board Type	Max Res.	Description
PPX	PPX-OUT8	DWPPXOUT8-0F	Display	1600x1200	8 Channel (RGB/DVI)
	PPX-OUT4	DWPPXOUT4-0F	Display	1920x1200	4 Channel (RGB/DVI)
	PPX-INVID16	DWPPXINVID16-0F	Capture	NTSC/PAL	16 Channel S-Video/Composite
	PPX-INDVI4	DWPPXINDVI4-0F	Capture	1920x1200	4 Channel RGB/DVI
VPX	VPX-OUT8	DWVPXOUT8-0F	Display	1400x1050	8 Channel (RGB/DVI)
	VPX-OUT4	DWVPXOUT4-0F	Display	1400x1050	4 Channel (RGB/DVI)
	VPX-INVID8	DWVPXINVID8-0F	Capture	NTSC/PAL	8 Channel S-Video/Composite
	VPX-INRGB4	DWVPXINRGB4-0F	Capture	1280x1024	4 Channel RGB
	VPX-IN/HYB	DWVPXINHYB-0F	Capture	NTSC/PAL; 1280x1024	8 Channel S-Video/Composite 4 Channel RGB
SMD	SMD	DW-IPSMD-0F	Decode	Mega Pixel	Decoding 16 Channels @ D1 resolution of compressed video
	IP Link	DW-PCL-0F	Capture	Support 2 X SMD	Distribute network video into the DWC

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