Matrox Mura™ MPX Series

Matrox Mura MPX Video Wall Solutions
Meet Your Project Requirements
Building a video wall doesn’t need to be an expensive or complex process—in fact, it’s easy when using Matrox Mura MPX Series video wall controller boards. Mura MPX Series allows you to configure a video wall with off-the-shelf components and control it with user-friendly software. Simply choose the boards you need from a complete hardware line-up and then select one or more software control options. You can also create more advanced controller systems by pairing Mura MPX Series with Mura IPX Series 4K capture and IP encode/decode cards.

### Mura MPX Series Features

#### Integrated Inputs and Outputs
- Start building video walls with just one board, with up to four universal inputs and four full HD outputs on a single slot add-in card
- Leverage load balancing and bandwidth preservation for large-scale, multi-channel projects

#### PCIe x16 Gen2 Bus Interface
- Unparalleled performance with 16 lanes available for duplex, peer-to-peer data transfer on Mura MPX-4/4, MPX-4/2, and MPX-4/0 boards

#### Universal Input Capture
- Capture DVI, RGB/VGA, Component, S-Video and Composite video on the same board
- Separate boards are available to capture SDI feeds
- Dedicated NTSC/PAL/SECAM capture boards support 8 or 16 channels each
- Capture HDMI and IP sources by pairing Mura MPX Series with Mura IPX Series

#### Input Auto Detection
- Mura MPX detects newly connected inputs and determines color space, resolution, and refresh rate automatically, making adding inputs as simple as making the hardware connection

#### HDCP Compliance
- Capture and scale HDCP content from sources such as external Blu-ray™ players, set-top boxes, and video game consoles

#### Many Video Wall Management Options
- Complete control from computer consoles, tablet devices, and Crestron® touch panels
- Manage and monitor your video wall from a multi-display console connected to your Mura-based video wall processor: Add a Matrox P690 PCIe x16 or P690 Plus LP PCIe x16 graphics card

#### Scalability
- Create high density, low footprint video wall controllers with up to 56 HD inputs and 56 HD outputs and add multi-stream IP encode/decode functionality and a more favorable input-to-output ratio with Mura IPX

#### Compositing
- Use compositing to create Alpha Blending / Color Key / Blend / Crop / Rotation

#### Bezel Management
- Compensate for display bezels for more realistic video presentation across multiple screens

#### Edge Overlap
- Simplify multi-projector edge blending by adjusting the number of overlapping pixels between edge blending projectors to create seamless, unified images

#### Hardware Framelock
- Synchronization of multiple outputs provides tear-free display of captured video sources across multiple displays

#### Microsoft® Windows® Environment
- Access a Windows desktop to run local applications

#### Passive Cooling
- Increased longevity and reliability

### NEW Mura IPX Compatibility
- Pair Mura IPX Series with Mura MPX boards in Matrox-certified platforms for 4K capture and multi-stream H.264 level 5.2 encoding/decoding over standard IP onto video walls of up to 56 displays and a more favorable input-to-output ratio; See Matrox Mura IPX datasheet for more details

### Universal Output/Input Boards
- Matrox Mura MPX-4/4, MPX-4/2, MPX-4/0

### SDI Input/DVI Output Board
- Matrox Mura MPX-SDI

### Analog Video Input Boards
- Matrox Mura MPX-V16, MPX-V8
Many Software Options to Manage Your Video Wall.

Matrox offers a complete range of software, APIs, and libraries that allow OEMs, developers and integrators to deploy intuitive, ready-to-use software or build custom interfaces & applications based on project needs. Whatever the installation requirement, Matrox provides the necessary toolkit to help build complete end-to-end solutions. Discover the multitude of software options available to you below.

Matrox Network API
Develop your own custom control application with Matrox’s robust and easy-to-use command-level API that can be used through Telnet, RS-232, and HTTP/HTTPS. Clear documentation and .NET sample code are available to kick-start custom control software development or modify existing control software to access Mura MPX and IPX Series’ high-end feature sets.

Matrox MuraControl™ for Tablets
A command-level SDK to build applications for Android™ and iPad®-based platforms via the Network API.

Matrox MuraControl
Matrox MuraControl video wall management software provides an easy and intuitive way to manage your video wall locally or remotely. Available as a feature rich, single-license software for Windows or as a free, lighter version app for iPad with drag & drop functionality—you can use it to create and manage layouts offline or in real time.

Key Features
- Easily manage inbound and outbound streams*
- Create, save, rename, copy, export, import, and delete layouts/presets
- Window transparency and color-keying functions
- Robust upgrade and software-support program
- Position, scale, clone, crop, frame, and label input windows
- Apply color-correction, multi-lingual text overlay, and deinterlacing

<table>
<thead>
<tr>
<th>Matrox MuraControl for Windows</th>
<th>Matrox MuraControl for iPad</th>
</tr>
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<tbody>
<tr>
<td><strong>Supported OS</strong></td>
<td></td>
</tr>
<tr>
<td>Windows XP, Windows 7, Windows Server® 2008 R2, Windows 8, 8.1, Windows 10</td>
<td>iOS 7 and up</td>
</tr>
<tr>
<td><strong>Getting Started</strong></td>
<td></td>
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<tr>
<td>• Free trial software available from Matrox (USB software license available for purchase)</td>
<td>• Free app available on the Apple® App Store™</td>
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Crestron Integration
Easily integrate customized Crestron touch panel control for Mura MPX-based video walls with free modules to get you started.

- Mura Crestron module: Realized through Matrox membership in the Crestron Integrated Partner Program, this module (available from Crestron) helps integrators link Crestron Control Systems to Mura-based video walls

OEM Partner Program
As part of the Matrox OEM Partner Program, qualified OEMs can develop their own control application using the comprehensive Mura SDK.

Control of your video wall is at your fingertips.

* Optional for 4K capture and IP encode/decode. See Mura IPX datasheet for more details.
## Matrox Mura MPX Series – Essential Building Blocks for Your Video Wall

### Universal Output/Input Boards

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Board Type</th>
<th>Bus Interface</th>
<th>Memory</th>
<th>Data Transfer Rate</th>
<th>Output Resolutions</th>
<th>Input Resolutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mura MPX-4/4</td>
<td>4 outputs, 4 inputs</td>
<td>PCIe x16 (Gen2)</td>
<td>2GB¹</td>
<td>64 Gbit/sec</td>
<td>- SL-DVI</td>
<td>1920x1200 @ 60Hz</td>
</tr>
<tr>
<td>Mura MPX-4/2</td>
<td>4 outputs, 2 inputs</td>
<td>PCIe x16 (Gen2)</td>
<td>1GB¹</td>
<td>32 Gbit/sec</td>
<td>- SL-DVI</td>
<td>1920x1200 @ 60Hz</td>
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<tr>
<td>Mura MPX-4/0</td>
<td>4 outputs</td>
<td>PCIe x16 (Gen2)</td>
<td>128 MB¹</td>
<td></td>
<td>- SDI</td>
<td>1080i</td>
</tr>
<tr>
<td>Mura MPX-SDI</td>
<td>2x DVI inputs, 2x 3G-SDI inputs</td>
<td>PCIe x16 (Gen2)</td>
<td>256 MB²</td>
<td></td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mura MPX-V8</td>
<td>8 inputs</td>
<td>PCIe x4 (Gen1)</td>
<td>—</td>
<td></td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mura MPX-V16F</td>
<td>16 inputs</td>
<td>—</td>
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</tbody>
</table>

### Supported SDI Formats

- 3G SDI (SMPTE 424M, SMPTE 425M Level A)
- HD SDI (SMPTE 292M, SMPTE 296M)
- SD SDI (SMPTE 259M)

### Power Consumption

- Typical: 37W @ 12V, 0.5W @ 3.3V or 37.5W Total
- Typical: 36W @ 12V, 0.5W @ 3.3V or 36.5W Total
- Typical: 20W @ 12V, 0.03W @ 3.3V or 20.03W Total
- Typical: 10W @ 12V
- Typical: 17W @ 12V

### Regulatory Certifications

- FCC Class A, CE Class A, ACMA Class A, VCCI Class A, KCC, ICES - 003 Class A, CSA
- EU RoHS, China RoHS, REACH

### Dimensions (LxH)

- 9.5 x 4.047 inches³ / 9.5 x 3.905 inches³
- 6.6 x 4.047 inches³ / 6.6 x 3.905 inches³
- 8.1 x 4.376 inches³ / 8.1 x 3.874 inches³

### Weight

- 298g
- 294g
- 290g
- 236g
- 158g
- 184g

### Operating Conditions

- Temperature: 0 to 40 degrees Celsius
- Humidity: 20% to 80% non-condensing
- Altitude: from 650 hPa (3580m) to 1013 hPa (0m)

### Non-operating/Storage Conditions

- Temperature: -40 to 65 degrees Celsius
- Humidity: 10% to 90% non-condensing
- Altitude: from 192 hPa (12000m) to 1020 hPa (-50m)

### OS Support

- Windows® Embedded Standard 7 (64 bit), Windows 7 Professional (64 bit), Windows 7 Professional for Embedded Systems (64 bit), Windows Server® 2008 R2 (64 bit)

### Warranty

- 3 years

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¹ Shared memory for inputs and outputs.
² Input memory.
³ Maximum resolutions listed above. Support for standard and custom resolutions available. For specific requirements contact Matrox.
⁴ RGB (VGA) adapter included with Mura MPX-4/4, Mura MPX-4/2 and Mura MPX-4/0. Matrox adapters sold separately for component, S-Video, and composite. Contact Matrox for details.
⁵ For specific requirements contact Matrox.
⁶ Including gold-fingers; not including bracket and connectors.
⁷ Not including gold-fingers.