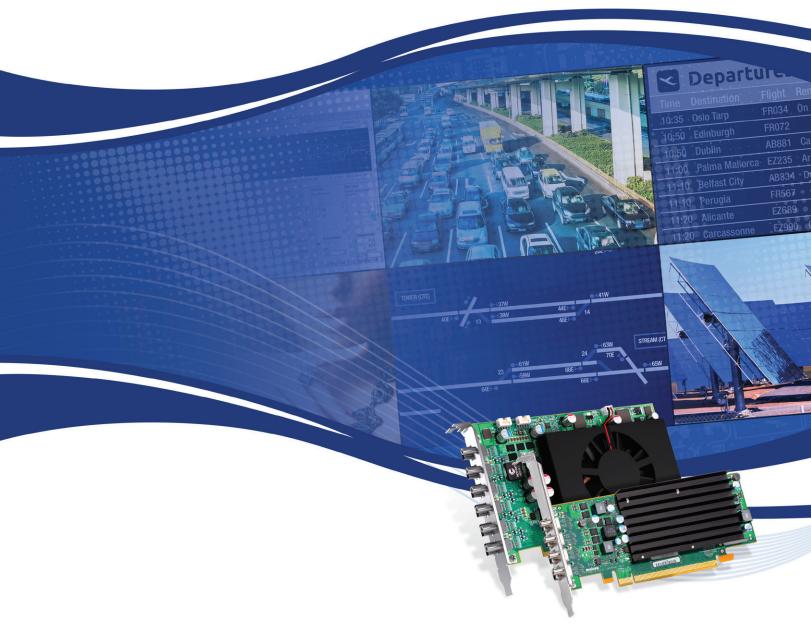
# Matrox **C-Series**™



Matrox C-Series Graphics Cards Performance Meets Flexibility



# Matrox C-Series Graphics Cards

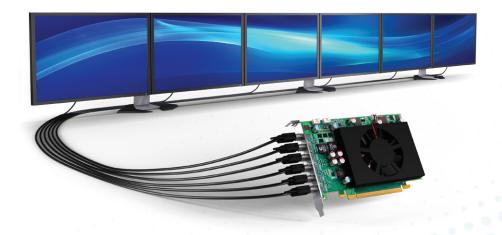
## **Performance Meets Flexibility**

Matrox C-Series multi-display video cards allow you to drive up to six displays or projectors from a single graphics board. Designed and built to ensure excellent reliability, stability and ease of deployment, C-Series PCI Express® x16 boards are ideal for demanding commercial and critical systems. They deliver advanced multi-monitor capabilities and outstanding performance for a wide range of applications including enterprise, industrial, pro A/V, digital signage, security, control rooms and more.



#### Matrox C420 LP PCIe x16

Low-profile, PCIe x16 quad video card. Provides increased reliability through its fanless design for both small form factor and full height systems.



#### Matrox C680 PCle x16

Full-height, PCIe x16 six-output graphics card. Delivers the best display density and performance for demanding multi-monitor applications.

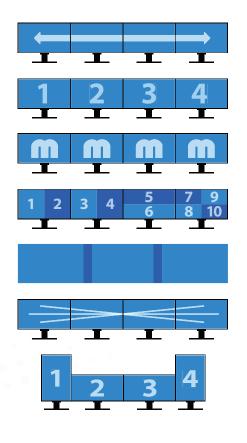
## **Key Benefits**

- Drive up to six displays or projectors with Matrox C680 (maximum resolution: 4096x2160)
- Drive up to four displays or projectors with Matrox C420 (maximum resolution: 2560x1600)
- Experience smooth video playback and graphics performance with 2 GB of memory
- Benefit from a fanless video card for increased reliability and silent operation with Matrox C420
- Leverage Matrox C420's low-profile design to install in a wide range of small form factor and full height systems
- Expand your desktop space with multi-board support to drive up to 12 displays from a single computer
- Simplify cabling by daisy-chaining DisplayPort<sup>™</sup> 1.2 MST-capable displays with Matrox C680

- Framelock two Matrox C680 cards together and synchronize the refresh rate across all monitors to reduce tearing
- Customize your setup with the easy-to-use Matrox PowerDesk™ multi-display configuration and desktop management software
- Configure displays independently from one another or as a single ultra-large desktop across multiple displays
- Prevent loose cabling with secure Mini-DisplayPort connectors
- Facilitate enterprise-wide deployments by installing Matrox PowerDesk & drivers across many systems without any user interaction
- Protect your investment with Matrox long product life-cycles
- Supports Microsoft® DirectX® 11.2, OpenGL® 4.4, and OpenCL™ 1.2 to run the latest professional applications

#### **Matrox PowerDesk Software**

The robust, field-proven Matrox PowerDesk desktop management software for Windows lets you easily configure and manage multi-display setups. It offers professional clients a comprehensive set of tools to deploy and control a variety of display configurations. Matrox advanced desktop management features also let you determine where and how program windows are displayed on the desktop — a productivity tool designed to enhance multi-display experiences.



#### Stretched Desktop

Create an ultra-large desktop to expand a single application across all screens.

#### Independent Desktop

Set displays independently from one another to open different applications within each screen.

#### Clone Mode

Duplicate content to show the same information on all displays.

#### Desktop Divider

Split up your desktop into different sections to create additional partitions for all your applications.

#### Edge Overlap

Adjust the number of overlapping pixels between edge blending projectors to build a seamless, unified image.

### **Bezel Management**

Compensate for the physical space created by monitor bezels to output a continuous image across multiple displays.

#### Pivot Mode

Select any combination of portrait or landscape and set the orientation that works best for you.

# **Diverse Multi-Monitor Configurations**

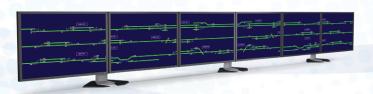
Matrox C-Series support numerous multi-monitor combinations and helps you create the optimal setup for their application. You can work on a 2x2 display setup to improve productivity or power a six-monitor video wall from a single computer to deliver high-impact, engaging content.



Drive demanding applications with increased reliability and performance.



Output high-quality video content so operators can review critical information without compromise.



View more critical information across an expansive configuration.



Showcase dynamic multimedia content across high-impact video walls.

# Matrox C-Series Specifications

	Quad Monitor Video Card	Six Monitor Video Card
Specifications	Matrox C420 LP PCle x16	Matrox C680 PCle x16
Part Number	C420-E2GBLAF	C680-E2GBF
Bus Type	PCIe 3.0 x16	PCle 3.0 x16
Number of Video Outputs	4	6
Memory	2 GB GDDR 5	2 GB GDDR 5
GPU	AMD™	AMD
Form Factor	Low Profile/Half Length	Full Height/Half Length
Bracket	Full Height (mounted)/Low Profile (in the box)	Full Height (mounted)
Dimensions	Length: 16.76 cm (6.6"), Height: 6.86 cm (2.7")	Length: 16.76 cm (6.6"), Height: 10.27 cm (4.05")
Cooling	Passive	Active
Board-to-Board Framelock <sup>1</sup>	No	Yes
Video Output Connectors	4x Mini DisplayPort (secure)	6x Mini DisplayPort (secure)
DisplayPort <sup>™</sup> Specification	1.1	1.2
DisplayPort 1.2 Multi-Stream Transport (MST) <sup>2</sup>	No	Yes
Maximum Resolution DisplayPort <sup>3</sup>	4x 2560x1600 60Hz	6x 4096x2160 30Hz 3x 4096x2160 60Hz
Maximum Resolution Dual-link DVI⁴	4x 2560x1600 60Hz	6x 2560x1600 60Hz
Maximum Resolution Single-link DVI/HDMI®4	4x 1920x1200 60Hz	6x 1920x1200 60Hz
Multi-Stream Audio through DisplayPort	4 audio streams	6 audio streams
HDCP Compliance	Yes	Yes
Supported Graphics Standards	<ul> <li>OpenGL<sup>®</sup> 4.4</li> <li>DirectX<sup>®</sup> 11.2</li> <li>OpenCL<sup>™</sup> 1.2</li> </ul>	<ul> <li>OpenGL<sup>®</sup> 4.4</li> <li>DirectX<sup>®</sup> 11.2</li> <li>OpenCL<sup>™</sup> 1.2</li> </ul>
Matrox PowerDesk for Windows	Yes	Yes
Operating Systems	Microsoft® Windows® 8.1 (32/64), Windows 7 (32/64), Windows Embedded Standard 7 (32/64), Server 2012 R2 (64), Server 2008 R2 (64), Linux®	
System Requirements	<ul> <li>Single available PCI Express x16 lane</li> <li>2 GB of system memory</li> <li>Internet access for software installation</li> <li>Compatible operating system</li> </ul>	Single available PCI Express x16 lane     2 GB of system memory     Internet access for software installation     Compatible operating system
Warranty	3 years	3 years
Accessories (Sold Separately)		
Mini DisplayPort to DisplayPort Adapter	CAB-MDP-DPF	CAB-MDP-DPF
Board-to-Board Framelock Cable	No	CAB-FL-F

# **The Matrox Advantage**

High Reliability Products	Long Product Life-Cycle	Direct Customer Support
Backed with 3-year warranty, we deliver high-quality products through our expert design and manufacturing process.	Protect your investment by integrating Matrox products with long life cycles.	Our strong technical support team helps you solve problems quickly.

Learn More or Purchase North America: 800-361-1408 International: 514-822-6366 Email: graphics@matrox.com



<sup>1)</sup> Available only under Microsoft Windows operating systems. Requires framelock cable (CAB-FL-F), sold separately.
2) Requires DisplayPort 1.2 MST-capable monitors or hubs – the number of displays that can be daisy-chained depends on the resolution, timings and refresh rate of the connected monitors.
3) Passive adapters may be required (sold separately).
4) Third-party active adapters required (sold separately).