# Matrox **C-Series**™





# Matrox C-Series Graphics Cards

# **Performance Meets Flexibility**

Matrox C-Series, multi-monitor video cards, featuring four, six, and nine-output models, let you drive multiple 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 to power multi-screen desktops, workstations, digital signage players, and video wall systems in commercial and critical environments. They deliver advanced multi-monitor capabilities and outstanding performance for a wide range of applications in enterprise, industrial, pro A/V, digital signage, security, control rooms, and more.







### Matrox C420 LP PCIe x16

Low-profile, PCle 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, resolution, and performance for demanding multi-monitor applications

#### Matrox C900 PCle x16

Full-height, PCIe x16 nine-output graphics card. Power nine displays from a single card and easily build 3x3 video wall systems.

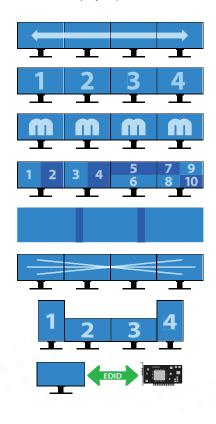
# **Key Benefits**

- Power 3x3 video walls with the single-slot Matrox C900 card (maximum resolution: 1920x1200)
- Drive up to six 4K displays with the Matrox C680 card (maximum resolution: 4096x2160)
- Connect up to four displays to the Matrox C420 (maximum resolution: 2560x1600)
- Experience smooth video playback and graphics performance with up to 4 GB of graphics memory
- Framelock two Matrox C680 or C900 cards together to reduce tearing and drive up to 18 displays
- Leverage Matrox C420's low-profile and fanless design to install it in a wide range of small-form-factor and full-height systems

- Pair C680 or C900 with Matrox Mura<sup>™</sup> IPX Series for 4K capture and IP encode & decode
- Customize your setup with the easy-to-use Matrox PowerDesk™ desktop management software
- Facilitate enterprise-wide deployments by installing PowerDesk & drivers without any user interaction
- Create your custom multi-monitor desktop/output management software with Matrox PowerDesk API
- Prevent loose cabling with secure Mini-DisplayPort connectors
- Supports Microsoft® DirectX® 12, 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<sup>1</sup>

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<sup>2</sup>

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

#### **EDID Management:**

Provide consistent EDID signal to the graphics card to ensure video is displayed correctly

# **Diverse Multi-Monitor Configurations**

Matrox C-Series supports numerous multi-monitor combinations and helps you create the optimal setup for every need. You can work off a 2x2 display setup to improve productivity, power six or nine-monitor video walls to deliver high-impact, engaging content, or go as high as 18 monitors by combining two cards, all from a single system.



Drive demanding applications with increased reliability and performance.

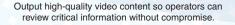


View more critical information across an expansive configuration.



Create eye-catching configurations from a single card.







Showcase dynamic multimedia content across high-impact video walls.



Power 3x3 video walls from a single card.

<sup>1)</sup> C900 is designed to run in a Streched Desktop; Independent Desktop mode is not supported. 2) Individual displays cannot be pivoted with C900; Need to pivot group of 3-displays.

# Matrox C-Series Specifications

	Quad Monitor Video Card	Six Monitor Video Card	New Nine Monitor Video Card
Specifications	Matrox C420 LP PCle x16	Matrox C680 PCIe x16	Matrox C900 PCle x16
Part Number	C420-E2GBLAF	C680-E2GBF	C900-E4GBF
Bus Type	PCle 3.0 x16	PCle 3.0 x16	PCle 3.0 x16
Number of Video Outputs	4	6	91
Memory	2 GB GDDR 5	2 GB GDDR 5	4 GB GDDR 5
GPU	AMD™	AMD	AMD
Form Factor	Low Profile/Half Length	Full Height/Half Length	Full Height/¾ Length
Bracket	Full Height (mounted)/ Low Profile (in the box)	Full Height (mounted)	Full Height
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")	Length: 22.91 cm (9.02"), Height: 11.12 cm (4.376")
Cooling	Passive	Active	Active
Power Consumption	20W	50W	75W
Board-to-Board Framelock <sup>2</sup>	No	Yes	Yes
Video Output Connectors	4x Mini DisplayPort (secure)	6x Mini DisplayPort (secure)	9x Mini HDMI
DisplayPort™ Specification	1.1	1.2	_
DisplayPort 1.2 Multi-Stream Transport (MST) <sup>3</sup>	No	Yes	_
Maximum Resolution DisplayPort <sup>4</sup>	4x 2560x1600 60Hz	6x 4096x2160 30Hz 3x 4096x2160 60Hz	_
Maximum Resolution HDMI	4x 1920x1200 60Hz⁵	6x 3840x2160 30Hz⁵ 6x 1920x1200 60Hz⁵	9x 1920x1200 60Hz <sup>1,6</sup>
Maximum Resolution Dual-link DVI	4x 2560x1600 60Hz⁵	6x 2560x1600 60Hz⁵	9x 1920x1200 60Hz <sup>6</sup>
Maximum Resolution Single-link DVI	4x 1920x1200 60Hz⁵	6x 1920x1200 60Hz⁵	9x 1920x1200 60Hz <sup>6</sup>
Multi-Stream Audio	4 audio streams (through DisplayPort)	6 audio streams (through DisplayPort)	3 audio streams (through HDMI)
HDCP Compliance	Yes	Yes	Yes
Supported Graphics Standards	DirectX® 12     OpenGL® 4.4     OpenCL™ 1.2	<ul> <li>DirectX® 12</li> <li>OpenGL® 4.4</li> <li>OpenCL™ 1.2</li> </ul>	<ul> <li>DirectX<sup>®</sup> 12</li> <li>OpenGL<sup>®</sup> 4.4</li> <li>OpenCL<sup>™</sup> 1.2</li> </ul>
Matrox PowerDesk for Windows	Yes	Yes	Yes
Operating Systems	Microsoft® Windows® 10 (32/64), Windows 8.1 (32/64), Windows 7 (32/64), Windows Embedded Standard 7 (32/64), Server 2012 R2 (64), Server 2008 R2 (64), Linux®7.8		
System Requirements	Microsoft® Windows® 10 (32/64), Windows 8.1 (32/64), Windows 7 (32/64), Windows Embedded Standard 7 (32/64), Server 2012 R2 (64), Server 2008 R2 (64), Linux® 8	Microsoft® Windows® 10 (32/64), Windows 8.1 (32/64), Windows 7 (32/64), Windows Embedded Standard 7 (32/64), Server 2012 R2 (64), Server 2008 R2 (64), Linux® 8	Microsoft® Windows® 10 (32/64), Windows 8.1 (32/64), Windows 7 (32/64), Windows Embedded Standard 7 (32/64), Server 2012 R2 (64), Server 2008 R2 (64), Linux®7
Warranty	3 years	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	CAB-FL-F
1 Supports 2 S or 0 display configurations All displays must up at the arms concludes			

# The Matrox Advantage

**High Reliability Products** Backed with 3-year warranty, we deliver high-quality products through our expert design and manufacturing process.

**Long Product Life-Cycles** Protect your investment by integrating Matrox products with long life cycles.

**Direct Customer Support** Our strong technical support team helps you solve problems quickly.



Supports 3, 6, or 9 display configurations; All displays must run at the same resolution.
 Available only under Microsoft Windows operating systems. Requires framelock cable (CAB-FL-F), sold separately.
 Shequires 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.
 Passive adapters may be required (sold separately).

<sup>5)</sup> Third-party active adapters required (sold separately).

<sup>6)</sup> Third party adapter required (sold separately).

Time party aduptive required splan separately).

 You can support coming soon.

 Mainstream support for 32-bit Windows operating systems has ended, Matrox will provide limited support for 32-bit operating systems."