

# Matrox C-Series

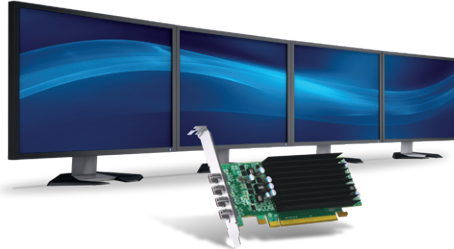


Matrox C-Series Graphics Cards  
Performance Meets Flexibility

# Matrox C-Series Graphics Cards

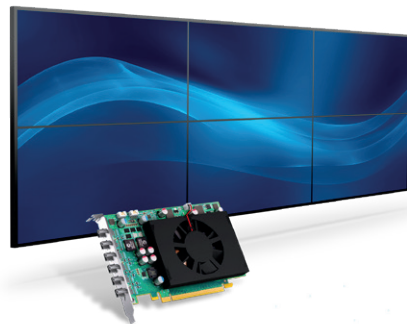
## Performance Meets Flexibility

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.



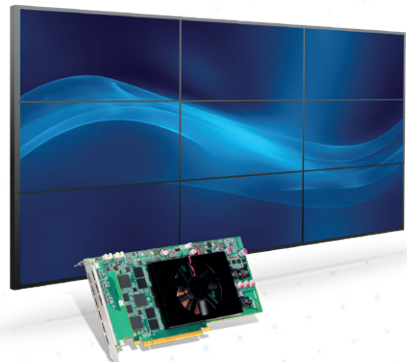
### Matrox C420 LP PCIe x16

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



### Matrox C680 PCIe x16

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



### Matrox C900 PCIe x16

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

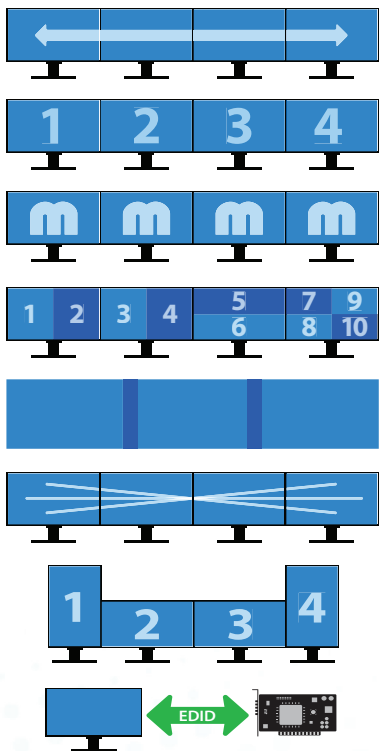
## Key Benefits

- 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 IPX Series for 4K capture and IP encode & decode capabilities
- Pair C680 with multiple QuadHead2Go™ multi-monitor controllers to drive up to 48 displays
- 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.

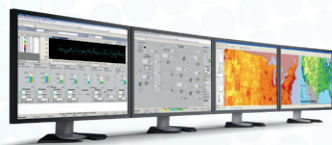
### EDID Management:

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

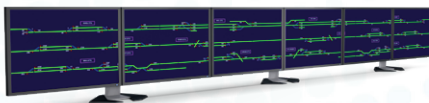
1) C900 is designed to run in a Stretched Desktop; Independent Desktop mode is not supported.  
2) Individual displays cannot be pivoted with C900; Need to pivot group of 3-displays.

## 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, or create even larger scale video walls by adding QuadHead2Go to C680 cards.



Drive demanding applications with increased reliability and performance.



View more critical information across an expansive configuration.



Create eye-catching configurations from a single card.



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



Power 3x3 video walls from a single card



Build large-scale video walls for high impact

# Matrox C-Series Specifications

	Quad Monitor Video Card	Six Monitor Video Card	Nine Monitor Video Card
Specifications	Matrox C420 LP PCIe x16	Matrox C680 PCIe x16	Matrox C900 PCIe x16
Part Number	C420-E4GBLAF	C680-E4GBF	C900-E4GBF
Bus Type	PCIe 3.0 x16	PCIe 3.0 x16	PCIe 3.0 x16
Number of Video Outputs	4	6	9 <sup>1</sup>
Memory	4 GB GDDR5	4 GB GDDR5	4 GB GDDR5
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	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>	—	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>	—	Yes	—
Maximum Resolution DisplayPort <sup>4</sup>	4x 2560x1600 60Hz 2x 3840x2160 30Hz	6x 4096x2160 30Hz 3x 4096x2160 60Hz	—
Maximum Resolution HDMI	4x 1920x1200 60Hz <sup>5</sup>	6x 3840x2160 30Hz <sup>5</sup> 6x 1920x1200 60Hz <sup>5</sup>	9x 1920x1200 60Hz <sup>1,6</sup>
Maximum Resolution Dual-link DVI	4x 2560x1600 60Hz <sup>5</sup>	6x 2560x1600 60Hz <sup>5</sup>	9x 1920x1200 60Hz <sup>6</sup>
Maximum Resolution Single-link DVI	4x 1920x1200 60Hz <sup>5</sup>	6x 1920x1200 60Hz <sup>5</sup>	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	• DirectX® 12 • OpenGL® 4.4 • OpenCL™ 1.2	• DirectX® 12 • OpenGL® 4.4 • OpenCL™ 1.2
Matrox PowerDesk for Windows	Yes	Yes	Yes
Operating Systems <sup>8</sup>	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 <sup>7</sup>		
System Requirements	Single available PCI Express x16 lane, 4 GB of system memory, Internet access for software installation, Compatible operating system		
Warranty	3 years	3 years	3 years
<b>Accessories (Sold Separately)</b>			
Mini DisplayPort to DisplayPort Adapter	CAB-MDP-DPF	CAB-MDP-DPF	—
Board-to-Board Framelock Cable	—	CAB-FL-F	CAB-FL-F
Secure Cable Solution	—	—	SK-C900-0F
DisplayPort Secure Cable Solution	—	SK-SLNB-4F	—

1) Supports 3, 6, or 9 display configurations; All displays must run at the same resolution.

2) Available only under Microsoft Windows operating systems with same model cards.  
Requires framelock cable (CAB-FL-F), sold separately.

3) 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.

4) Passive adapters may be required (sold separately).

5) Third-party active adapters required (sold separately).

6) Third party adapter required (sold separately).

7) C900 Linux adapter coming soon.

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

## The Matrox Advantage

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

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