



Matrox Graphics product line-up

Graphics solutions for professionals

Graphics cards (add-in boards)

Matrox multi-display graphics cards offer the most comprehensive feature set with consistent stability and reliability for displaying critical information.



Product	Part #	Max. # of computer monitors			Card type	Graphics memory	Form factor (card / bracket)	Monitor connectors	Maximum resolutions (per display)		Card/Unit size	Extra hardware included	Extra features included	Matrox upgrades	List price (USD)
		Digital	Analog	Total					Digital	Analog					
Parhelia Series - Most powerful DualHead/TripleHead graphics cards															
Parhelia 128MB	PH-A8X128F	2	3	3	AGP 8x	128 MB	ATX / ATX	DVI x 2	1920 x 1200 [‡]	2048 x 1536 (x1, x2), 1280 x 1024 (x3 [‡])	6.9" x 4.3"	a, b, c	l, m, o	—	\$399
Parhelia 256MB	PH-A8X256F	2	3	3	AGP 8x	256 MB	ATX / ATX	DVI x 2	1920 x 1200 [‡]	2048 x 1536 (x1, x2), 1280 x 1024 (x3 [‡])	6.9" x 4.3"	a, b, c, d, e	l, m, o	—	\$639
Parhelia PCI 256MB	PH-P256F	2	3	3	PCI, 64-bit, 66 MHz	256 MB	ATX / ATX	DVI x 2	1920 x 1200 [‡]	2048 x 1536 (x1, x2), 1280 x 1024 (x3 [‡])	7.5" x 4.2"	a, b, c, d, e	l, m, o	A	\$699
Parhelia DL256 PCI	PH-P256DLF	1	1	2	PCI, 64-bit, 66 MHz	256 MB	ATX / ATX	DVI x 2	2560 x 1600 [‡]	2048 x 1536	7.5" x 4.2"	a, c, d, e	l, m	—	\$699
Parhelia APVe	PH-E128APVF	2	3	3	PCIe x16	128 MB	ATX / ATX	DVI x 2	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2), 1280 x 1024 (x3 [‡])	6.4" x 4.4"	a, b, c, j, k	l, m	G	\$349
Millennium P-Series - Comprehensive series of high-resolution DualHead graphics cards for all form factors and bus types															
Millennium P650 PCIe 128	P65-MDDE128F	2	2	2	PCIe x16	128 MB	ATX / ATX	DVI x 2	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2)	6.4" x 4.4"	a x 2	l, m, o	B	\$249
Millennium P650 LP PCIe 64	P65-MDDE64LPF	2	2	2	PCIe x16	64 MB	LP / LP	LFH60	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2)	5.8" x 2.7"	a x 2, f, h	l, m	B, E	\$279
Millennium P650	P65-MDDA8X64F	2	2	2	AGP 8x	64 MB	ATX / ATX	DVI x 2	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2)	5.9" x 4.1"	a x 2	l, m, o	B, C	\$169
Millennium P650 Low-profile PCI	P65-MDDAP64F	2	2	2	PCI, 32-bit, 66 MHz	64 MB	LP / ATX	LFH60	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2)	5.2" x 2.5"	a x 2, f, h	l, m	B, E	\$279
Millennium P750	P75-MDDA8X64F	2	3	3	AGP 8x	64 MB	ATX / ATX	DVI x 2	1920 x 1200	2048 x 1536 (x1), 1920 x 1440 (x2), 1280 x 1024 (x3 [‡])	5.9" x 4.1"	a, b, c	l, m, o	—	\$235
QID Series - Comprehensive series of quad-display graphics cards for all form factors and bus types															
QID	QID-QDA8X128F	4	4	4	AGP 8x	128 MB	ATX / ATX	LFH60 x 2	1600 x 1200 [‡]	1600 x 1200 [‡]	6.5" x 4.3"	a x 4, f x 2	m, n	D, E	\$599
QID Pro	QID-P256PROF	4	4	4	PCI, 64-bit, 66 MHz	256 MB	ATX / ATX	LFH60 x 2	1600 x 1200 [‡]	1600 x 1200 [‡]	7.5" x 4.2"	a x 4, f x 2	l, m, n	D, E	\$999
QID LP PCIe	QID-E128LPAF	4	4	4	PCIe x16	128 MB	LP / ATX	KX20	1600 x 1200 [‡]	1600 x 1200 [‡]	6.6" x 2.7"	a x 4, g, h	m, n	H	\$799
QID Low-profile PCI	QID-P128LPAF	4	4	4	PCI, 32-bit, 66 MHz	128 MB	LP / ATX	KX20	1600 x 1200 [‡]	1600 x 1200 [‡]	6.6" x 2.5"	a x 4, g, h	m, n	H	\$799
MMS - Multi-chip dual- and quad-display graphics cards enabling advanced multi-monitor configurations															
G450x2 MMS	G45X2DUAL-BF	2	2	2	PCI, 32-bit, 66 MHz	64 MB	ATX / ATX	LFH60	1280 x 1024	2048 x 1536	6.5" x 4.2"	a x 2, f	m, n	D, E	\$559
G450x4 MMS	G45X4QUAD-BF	4	4	4	PCI, 32-bit, 66 MHz	128 MB	ATX / ATX	LFH60 x 2	1280 x 1024	2048 x 1536	6.5" x 4.2"	a x 4, f x 2	m, n	D, E	\$699
Millennium G-Series - Cost-effective and highly flexible DualHead graphics cards for all form factors and bus types including PCI Express x1															
Millennium G550 PCIe	G55-MDDE32F	2	2	2	PCIe x1	32 MB	ATX / ATX	DVI x 2	1280 x 1024 [‡]	2048 x 1536 (main), 1600 x 1200 (secondary)	4.4" x 3.6"	a x 2	n	B	\$139
Millennium G550 LP PCIe	G55-MDDE32LPDF	2	2	2	PCIe x1	32 MB	LP / LP	LFH60	1280 x 1024 [‡]	2048 x 1536 (main), 1600 x 1200 (secondary)	6.4" x 2.7"	a x 2, f, h	n	B, E	\$169
Millennium G550	G55+MDHA32DRF	1	2	2	AGP 4x	32 MB	ATX / ATX	DVI, HD15	1280 x 1024	2048 x 1536 (main), 1600 x 1200 (secondary)	6.6" x 3.2"	a, c	n	—	\$125
Millennium G550 Low-profile PCI	G55MDDAP32DBF	2	2	2	PCI, 32 bit, 66 MHz	32 MB	LP / ATX	LFH60	1280 x 1024 [‡]	2048 x 1536 (main), 1600 x 1200 (secondary)	6.6" x 2.5"	h, i	n	B, E, F	\$149
Millennium G550 Dual DVI	G55MADDA32DBF	2	2	2	AGP 4x	32 MB	LP / ATX	LFH60	1280 x 1024 [‡]	2048 x 1536 (main), 1600 x 1200 (secondary)	6.6" x 2.5"	h, i	n	B, E, F	\$150
Millennium G450 PCI	G45FMDVP32DBF	1	2	2	PCI, 32 bit, 33 MHz	32 MB	ATX / ATX	DVI, HD15	1280 x 1024	2048 x 1536 (main), 1600 x 1200 (secondary)	5.9" x 4.0"	a	n	B	\$115
Millennium G450 Low-profile	G45FMLDVA32DBF	1	2	2	AGP 4x	32 MB	LP / LP	DVI	1280 x 1024	2048 x 1536 (main), 1600 x 1200 (secondary)	6.6" x 2.5"	b, h	n	B	\$145
Millennium G450	G45FMDHA32DBF	—	2	2	AGP 4x	32 MB	ATX / ATX	HD15 x 2	—	2048 x 1536 (main), 1600 x 1200 (secondary)	5.9" x 3.3"	—	n	B	\$95
Epica Series - Dual- and quad-display graphics cards for thin clients															
Epica TC4	EPI-TC4P128LPAF	4	4	4	PCI, 32 bit, 33 MHz	128 MB	LP / ATX	KX20	1600 x 1200 [‡]	1600 x 1200 [‡]	6.6" x 2.5"	a x 4, g, h	m, n, p	—	\$849
Epica TC2	EPI-TC2P64LPAF	2	2	2	PCI, 32 bit, 33 MHz	64 MB	LP / ATX	LFH60	1920 x 1200 [‡]	2048 x 1536 (x1), 1920 x 1440 (x2)	5.2" x 2.5"	a x 2, f, h	m, p	B, E	\$309
Epica TC2-Lite	EPI-TC2P32LPAF	2	2	2	PCI, 32 bit, 33 MHz	32 MB	LP / ATX	LFH60	1280 x 1024 [‡]	2048 x 1536 (main), 1600 x 1200 (secondary)	6.6" x 2.5"	a x 2, f, h	n, p	B, E	\$199

Extra hardware

- a** DVI-to-HD15 connector adapter
- b** DVI-to-HD15 dual-monitor adapter cable (1-foot)
- c** TV-output adapter cable (HD15 to composite video and S-video, 1-foot)
- d** Stereo-3D bracket for secondary slot (mini DIN3 connector)
- e** Stereo-3D adapter cable (mini DIN3 connector, 1-foot)
- f** LFH60-to-DVI dual-monitor adapter cable (1-foot)
- g** KX20-to-DVI quad-monitor adapter cable (1-foot)
- h** Extra bracket for different form factor (LP or ATX)

- i** LFH60-to-HD15 dual-monitor adapter cable (1-foot)
- j** DVI-to-HD15/DVI dual-monitor adapter cable (1-foot)
- k** HD15-to-component-video (HDTV) adapter cable (1-foot)

Extra features

- l** OpenGL[®] acceleration
- m** Pivot (display rotation) support
- n** Support for displays with special aspect ratios
- o** Matrox-certified with leading CAD and/or GIS software
- p** Passive cooling, low-wattage, client-server software support

Matrox upgrades

- | | Part # |
|---|-----------------|
| A Video input adapter cable (composite video and S-video, 1-foot) | CAB-DVI-VINF |
| B TV-output adapter cable (composite video and S-video, 1-foot) | CAB-HD15-TVF |
| C Millennium P650 TripleHead™ upgrade kit | P65-UPGRADE-KIT |
| D Dual TV output adapter (composite video and S-video, 1-foot) | CAB-L60-2XTVF |
| E LFH60-to-DVI dual-monitor cable (6-foot) | CAB-L60-2XD6F |
| F LFH60-to-DVI dual-monitor adapter cable (1-foot) | CAB-L60-2XDF |
| G DIN8-to-composite video input adapter cable (1-foot) | CAB-DIN8-CVINF |
| H Quad TV output adapter cable (composite video and S-video, 1-foot) | CAB-KX20-QTVF |

Notes

- Card size = length (not including bracket and bracket connectors) x height (including slot connector)
- PCIe x16 cards aren't downward compatible with PCIe slots designed for different bandwidths (e.g., x1, x4, x8).
- PCIe x1 cards are compatible with compliant PCIe slots (e.g., x1, x4, x8, x16).
- Matrox PCI cards are compatible with all PCI and PCI-X slots (not PCIe slots).
- For LP (Low-Profile) cards with ATX brackets, cards with factory-installed LP brackets may be available.
- With special monitor settings, Matrox products may support higher digital resolutions than those listed here.

- Matrox products support the analog resolutions listed here at 60 Hz or higher.
- Part numbers may differ for RoHS-compliant products. For more information, see: www.matrox.com/environment

‡ The resolution of each display must be the same. ¹ Support for pairs of independent resolutions. ² Dual Link DVI.

Graphics eXpansion Modules (GXMs)

Matrox DualHead2Go and TripleHead2Go are easy-to-use, external palm-sized Graphics eXpansion Modules that allow users to add multi-display capabilities to a notebook or desktop PC via external connectivity.



Product	Part Number*	Additional monitor support	Connectors	Hardware included	Max. analog resolution (per display)	Dimensions	Pricing
DualHead2Go	D2G-A2A-AJ D2G-A2A-EUF D2G-A2A-FE	2	HD15 x 3 (1 input, 2 output)	2-foot HD15-to-HD15 (analog) monitor cable, external 5VDC power adapter, region-specific power cable(s)	1280 x 1024**	3.8" x 1.0" x 3.6" (9.5cm x 2.5cm x 9.2cm)	\$169
TripleHead2Go	T2G-A3A-AJF T2G-A3A-EUF T2G-A3A-FEF	2 or 3	HD15 x 4 (1 input, 3 output)	2-foot HD15-to-HD15 monitor cable, 2-foot DVI-to-HD15 monitor cable, external 5VDC power adapter, region-specific power cable(s)	1280 x 1024**	4.2" x 1.0" x 3.6" (10.7cm x 2.5cm x 9.2cm)	\$299

* The part number for North America and Japan uses "AJ" while the part number for Europe and the rest of Asia uses "EU" or "FE", respectively.
** For notes on resolution limitations with certain graphics chips and for notes on additional resolution support, please contact Matrox.

Remote Graphics Units (RGUs)

Matrox Extio series of products are the world's first fully integrated Remote Graphics Units, separating the I/O interface of the computer - the keyboard, mouse, monitors, audio peripherals, and graphics hardware - from the rest of the computer by up to 820 feet (250 meters) of fiber-optic cable. Featuring a Matrox-designed graphics chip, 128 MB of memory, support for up to 4 analog or digital monitors, passive cooling (heat sink with no fan) for silent operation and extra reliability, these products save space at the user station and allow system administrators to access and maintain the system at a separate location.



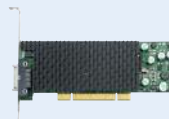
Product	Part Number	Number of displays supported (analog & digital)	Memory	Connectors	Max. analog & digital resolutions (per display)	Dimensions
Extio F1400	XTO-F1400F	4	128 MB	4 DVI-I connectors ¹ , 6 USB 2.0 ports, std analog audio connectors, dual-LC fiber-optic connector, power input, optical connector for digital audio output	1600 x 1200*	11.8" x 1.2" x 5.6" (30.0cm x 2.9 cm x 14.2 cm)
Extio F1420	XTO-F1420F	4	128 MB	Additional connectors: 2 firewire ports	1600 x 1200*	11.8" x 1.2" x 5.6" (30.0cm x 2.9 cm x 14.2 cm)

* Support for pairs of independent resolutions ¹ 4 DVI-to-HD15 connector adapters included
Note: Fiber-optic cable and Matrox interface card for either PCI (part #: XTOA-FP33LPAF) or PCIe (part #: XTOA-FELPAF) sold separately. Contact Matrox for compatibility information.

Thin computing solutions

Matrox Epica hardware and software suite for thin computing features dual- and quad-display PCI graphics cards with low power consumption, passive (fanless) cooling and Matrox PowerDesk Epica server-based software to manage multi-display configurations in remote sessions.

For more information on Epica TC4, Epica TC2 and Epica TC2-Lite graphics cards, see "Graphics cards (add-in boards)" section, and for more information on Epica software, see "Matrox Epica software for thin computing."



Specialized products

- Matrox Parhelia Precision SDT graphics card for digital stereoscopic displays
- Matrox Parhelia Precision SGT graphics card for stereoscopic grayscale monitors
- Matrox Parhelia HR256 graphics card for 3840 x 2400 high-pixel density monitors
- Matrox graphics cards for projection
- Matrox air traffic control graphics controller boards
- Embedded system solutions
- Matrox PPX and VPX display wall controller capture and output boards for video walls
- Matrox AuroraVX™, MED™, RAD™ and TheatreVUE™ Series for Medical Imaging

For more information on these products, please visit www.matrox.com/graphics.

Matrox multi-display software features



Customizable Unattended Install

- Enables large corporate installs to create a standard set of desktop features and settings that can be implemented site-wide with a one-click install



Matrox NT-Style Stretched Desktop

- Enables the desktop to be setup as one single large desktop in Win® 2K and Win® XP instead of four independent ones



Matrox Pivot

- Multiple screen setup for viewing in landscape or portrait mode
- In independent mode, permits rotation of all displays 90 or 270 degrees
- Permits single rotation of an NT-Style or Stretched Desktop set of displays 90 or 270 degrees



Matrox PowerDesk

- Matrox desktop management suite provides the user with controls for managing the behavior of how and where windows are opened, even while using NT-Style Stretched Desktop.



Matrox PowerSpace

- Create multiple virtual desktops to accommodate applications running simultaneously
- Use hot keys to navigate between each virtual desktop to see a completely different set of applications
- Save and recall application positions
- Save and migrate settings to other systems



Matrox Multi-Clone

- Enables you to display the same desktop across all displays



Independent Desktop

- Enables the set up of 3 or 4 independent desktops at the same resolution



Matrox Desktop Divider

- Enables users to divide a single desktop into smaller display units for better organization of space



Matrox PowerRes

- Enables EDID override and the use of a wide variety of specialty widescreen 16:9 & 16:10 and 4:3 & 5:4 resolutions and timings
- Enables the ability to add custom resolutions

For more information on which products or drivers support these features, please contact Matrox.

Matrox Epica software for thin computing

Matrox PowerDesk Epica and Matrox PowerSpace Epica software suites are installed on the server side to enhance the user experience with multi-display remotely hosted desktops. The two innovative desktop management tools have been exclusively designed for the Matrox Epica series of graphics cards (Epica TC2-Lite, Epica TC2 and Epica TC4), to provide a hardware and software solution that offers powerful productivity-enhancing features and tools for thin-computing environments.

PowerDesk Epica key features:

- Multi-monitor awareness capability
- Resolution auto-detection
- Maximize windows across a specified number of displays
- Control dialog box and message box positioning

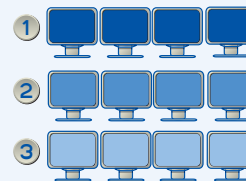


A single remote session from a single client device, spanning across multiple monitors. Applications can be maximized across a specified number of displays.

Note: Multiple remote sessions from a single client device spanning across multiple monitors is also possible.

PowerSpace Epica key features:

- Create multiple workspaces to better organize screen space
- Define up to 9 virtual desktops per monitor, or per multi-monitor workspace, that can be labeled and toggled with hotkeys
- Save application positions per workspace
- Start applications automatically upon login and restore them to their saved locations



For the latest drivers or technical support, visit www.matrox.com/graphics.

About Matrox Graphics

Matrox Graphics is the leading manufacturer of graphics solutions for corporate professionals and has been delivering high-quality, innovative 2D/3D and video graphics accelerators since 1976. The first to introduce multi-display technology from a single chip in 1999, Matrox Graphics combines its proven graphics chip designs, reliable software development and dependable card manufacturing expertise to produce products that are reputed worldwide for their superior image quality, practical ingenuity and unwavering stability. Matrox has recently extended its multi-display expertise to new revolutionary multi-display graphics hardware, featuring Graphics eXpansion Modules, Remote Graphics Units and thin computing solutions.

Vertically integrated and offering a full range of products that satisfy the specific real-world needs of professional users, Matrox is the leading world-wide supplier of optimized graphics solutions for segments such as:



Finance & Insurance



Media Creation & Editing



Medical Imaging



CAD & GIS



Dispatch, Security & Process Control



Digital Signage / Public Information Displays



Specialized Applications

Competitive Advantages

Proven technology leadership

- Responsible for bringing multi-display capabilities to the corporate environment, Matrox continues to focus on evolving customer needs with new revolutionary multi-display technologies.

Top-to-bottom manufacturing

- Matrox is in complete control of the entire manufacturing process and complements its hardware innovation with superior driver and software development.
- Matrox products feature exceptional image quality and industry-leading MTBF (mean-time-between-failure).
- Matrox products have long product life cycles, reducing the burden on enterprise for frequent and expensive qualifications.

Adopted by industry leaders

- Working closely with government, corporate and industrial customers has allowed Matrox to consistently innovate and introduce products with productivity-enhancing features to address specific needs in the industry.

Custom design services

- The Matrox specialized applications department offers fee-based design services including driver customization, customized hardware and application/feature development.

Direct product support

- Matrox stands behind its products offering world-class pre- and post-purchase support and client service to all OEM, VAR, distributor, and end user customers.

For more information on Matrox products, visit www.matrox.com/graphics.

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