The most compact four-chip multi-monitor solution for business markets

Multi-Monitor Series graphics cards

Matrox G450

MMS

# matrox

# Matrox G450 MMS

# The world's smallest and most powerful four-chip PCI graphics card for business markets.

With more than 25 years of industry experience, Matrox is an established technology leader of business solutions and dominates over 70% of the premium financial multi-monitor market. The Matrox G450 X2 and X4 Multi-Monitor Series (MMS), with the smallest four-chip graphics accelerator, represents the newest addition to the MMS line of products. The Matrox G450 X2 and X4 MMS offer outstanding multi-monitor support and unparalleled image quality to the financial, medical and industrial markets.



Multiple analog or digital support



Flight information displays (Matrox Multi TV Out)



Process control systems



Direct worldwide support



Unified drivers and features

#### Stable and reliable

- The Matrox G450 chip is based on a mature and proven technology with millions of units shipped
- Matrox G450 MMS chip set and drivers have been tested and qualified by HP, IBM, DELL and Microsoft-plus many of the world's largest financial, corporate, and industrial institutions

#### **Compact design and flexibility**

- Custom 6.5-inch (16.5 cm) graphics card designed for the new generation of half-length PCI systems
- No need to sacrifice system size to have robust full-featured dual- or quad-output
- Every G450 MMS card is digital-, analog- or multi-TV Out- ready

#### One chip per output

Unlike other multi-monitor solutions on the market, Matrox offers independent graphics chips, 360 MHz RAMDACs and 32 MB of dedicated memory for each display to enable optimal performance and stability

#### **Direct product support**

- Same day callback or e-mail response from mmssupport@matrox.com for technical issues
- Matrox offers the best support in the industry by providing a dedicated team of global technical management, technical support and sales representatives with many years of expertise in the multi-monitor market
- Worldwide presence with offices in North America, Europe, and The Pacific Rim

#### Proven technology leadership

- Matrox is the only graphics manufacturer that designs its own graphics chips, boards and drivers
- All engineering efforts, from chip conception to board design, are focused on ensuring the highest possible image quality

#### Long product life cycles

- The Matrox MMS product line has a much longer product life cycle than other mass market graphics cards, which ensures that Matrox MMS customers are not burdened with frequent and expensive re-qualifications
- Long transition periods between each MMS generation
- No surprise end of life (EOL) announcements

#### Adopted by industry leaders

 Fortune 500 companies who have already integrated Matrox multi-monitor technology include: Barclays, Bear Stearns, Credit Suisse First Boston, Delta, Fidelity Investments, Lehman Brothers, Lloyds Bank, Merrill Lynch, Reuters, Citigroup/Salomon Smith Barney, Morgan Stanley, Air Canada and many others.

### Potential markets for the G450 X2 and X4 MMS

- Financial and energy trading
- Public information displays/video walls
- Distribution control centers
- Air traffic control centers
- Flight information displays
- Digital menu displays
- Process control systems
- Medical imaging industries

### **Compare the size advantage**

of the Matrox G450 MMS to the previous Matrox MMS line of graphic cards



### Specially designed software and hardware features

for Matrox multi-monitor customers

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
	Customize all of the Matrox PowerDesk settings and features
Matrox MultiDesk (MMD)	New 2nd generation MMD with enhanced features
	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 your MMD desktop and export to another system
Matrox Multi-Pivot / Portrait**	Set up multiple screens for viewing in landscape or portrait mode or both
	Each display can be turned independently 90, 180, or 270 degrees
Matrox Multi-Clone**	Display the same desktop across all displays
	Create flexible multi-monitor clone display setup (i.e. Clone display 1 on display 4,7, and 8)
Matrox NT Style Fixed Resolution**	<ul> <li>Enables the desktop to be setup as one single large desktop in Win<sup>®</sup> 2K instead of four</li> </ul>
	independent ones
Full-Featured Display Outputs	- Matrox MMS cards support up to 16 monitors in NT and 10 monitors in Win $^{\odot}$ 2K and XP
Matrox Multi TV Out**	G450 MMS cards support the option of outputting to multiple TVs (NTSC or PAL) for public
	display settings (special TV Out cables required)
Matrox Unified Drivers	Support previous generations of Matrox cards across the entire work site with a single driver
Standard Multi-Monitor Features	Control dialog box positioning
	Control logon/logoff positioning
	Maximize a window full-screen or to a single screen
	Save an application's previous size and position

\*\*Support under Windows®2000 and XP only

Feature	Benefit
Multiple MGA-G450 graphics chips	Two or four chips per board deliver superior 2D performance
32 MB DDR memory per output	Quad provides maximum of 128 MB enabling faster and more robust graphics execution
360 MHz integrated RAMDAC per G450 chip	Provides high-resolution flicker-free displays and crisp images that Matrox is renowned for
Ultra-compact board design	6.5" (16.5 cm) board length enables support for all half-length PCI systems
Multiple cards supported in same system	Mix and match Matrox MMS dual and quad cards and support up to 16 displays from one system*
Maximum analog resolution per output: 2048 x 1536 24bpp @85 Hz	Enables support for a wide range of CRT, LCD panel and Plasma resolutions
Maximum digital resolution per channel 1280 x 1024**	Achieves higher color accuracy and image focus for image and quality critical work
High-quality connectors and cables	Offers maximum versatility by allowing user to connect to both 15-pin analog displays or DVI digital flat panels
Multi TV Out capability	Allows for multi NTSC or PAL TV outputs (with cable upgrade)
Unified Microsoft certified drivers	The most stable optimized driver support available for Windows NT® 4.0,Windows® XP, Windows® 2000,Windows® 98 and Linux
FCC, CE, CSA, VCCI certifications	Guarantees optimal worldwide EMI (electromagnetic interference) conformity
3-year warranty	Backed by experienced technical support teams and 24-hour internet access to information and latest drivers

\* 16 displays supported under Microsoft® Windows NT® only / 10 displays supported

in Windows 2K and XP

\*\* 1600 x 1200 possible for some panels supporting reduced timings

System requirements	
System	PCI bus
	Pentium 133 or greater with 64 MB of RAM PCI 2.1 and 2.2 compliant
	Windows NT° 4.0, Windows XP°, Windows° 2000, and Linux

#### G450 X2 and X4 MMS Products:

- P/N: **G45X2DUAL-B** (Dual-display analog and/or digital card, 64 MB DDR)
- P/N: G45X4QUAD-B (Quad-display analog and/or digital card, 128 MB DDR)

#### G200 MMS and G450 X2 and X4 MMS Cable Options:

- P/N: **DL-CAB-DVI-I** (One-foot LFH-60 to Dual-DVI-I cable\*)
- P/N: **DVI-I-VGA** (DVI-I to VGA adapter\*)
- P/N: DL-CAB-DVI (Six-foot LFH-60 to Dual-DVI-D cable)
- P/N: DL-CAB-VGA (One-foot LFH-60 to Dual VGA cable) \*Ships standard with all G450 X2 and X4 MMS cards

#### G450 X2 and X4 MMS TV Out Cables:

- P/N: **DL-TVO-SCART** (LFH-60 to Dual TV Out cable for SCART connectors)
- P/N: **DL-TVO-CSV** (LFH-60 to Dual TV Out cable for S-Video and composite connectors)

P/N = Part Number

#### Matrox offers unprecedented worldwide support for our multi-monitor product line with offices or agents in:

London, Paris, Milan, Munich, Hong Kong, Taipei, Tokyo, Montreal, Toronto, San Francisco, Seoul, Singapore



## matrox

Matrox Graphics Inc. 1055 St-Regis Blvd. Dorval, Québec, Canada H9P 2T4 Tel: 1-800-361-4903 (North America), 514-822-6364 (Worldwide)

Matrox reserves the right to change specifications without notice. All trademarks and trade names, service marks and logos references herein belong to their respective companies.

\$GE-5304-B February, 2003