

MODELS

Matrox Millennium G400
(AGP) Graphics Controller
158358-B21 (Single Display)

Matrox Millennium G400
DualHead (AGP) Graphics
Controller
159512-B21 (Dual Display)

QUICKSPECS

Matrox Millennium G400 AGP
Graphics Controllers

Overview

The Matrox Millennium G400 AGP graphics accelerator draws upon the established excellence of previous generation Matrox graphics and raises the bar on 2D graphics performance and features. In the most demanding professional and business applications, these controllers combine superior performance, image quality, and support for new graphics processing techniques in one easy-to-use, easy to install solution. The new Matrox G400 delivers exceptional 2D performance, providing a compelling alternative to the Matrox Millennium G200 and for customers seeking Matrox performance and stability or optional digital display support. The Matrox Millennium G400 DualHead provides the most powerful multi-display 2D on the market today, and is the best choice for customers powering two analog displays from a single AGP controller.

Performance

The new 256-bit DualBus design implements two independent 128-bit buses operating in parallel inside the Matrox G400 chip. To complement the lightening-fast 256-bit DualBus and create a well-balanced performance design, the Matrox G400 also employs a full 128-bit interface to memory. Finally, the Matrox G400 controller is powered by a high performance 300MHz RAMDAC for the sharpest, most responsive displays possible.

Functionality and Uses

The Matrox Millennium G400s are high-quality graphics controllers that deliver outstanding performance in 2D, GDI and DirectDraw and Direct3D applications for business users and professional 2D/3D designers.

The graphics controllers have an advanced 3D rendering engine that takes advantage of the latest Microsoft graphics APIs to achieve fast single pass multi-texturing with 32-bit rendering, 32-bit textures, 32-bit Z-buffer with 8-bit stencil, and full AGP texturing. Fitted with 16MB of high-speed video memory, the Matrox Millennium G400 provides fast, crisp displays with a 300MHz RAMDAC.

Matrox' new Vibrant Color Quality² (VCQ²) features ensure superior image quality and rendering precision for CAD, web-site development and much more.

The single display controller is the best 2D graphics accelerator available today. It also offers superior flexibility and advanced features. It has additional digital output available when coupled with the optional DVI Daughter Board.

The DualHead dual display controller supports simultaneous independent output of different images to two display screens using the same graphics chip, providing the most flexible, highest performance graphics solution for customers that require the large visual field available with two displays. Customers that require more than two displays should opt for the Matrox G200 Quad MMS graphics controller.

Quality and Compatibility

Compaq has a solid reputation for delivering high-quality, reliable products. Compaq products are designed and tested to rigorous specifications, including tough qualification requirements for suppliers, stringent performance specifications, and a thorough testing process to ensure consistent quality from prototype to production.

Service and Support

The Matrox Millennium G400 Graphics Controller carries the longer of either a one-year warranty or the remainder of the warranty period for the Compaq unit in which it is installed. Compaq offers a 7 x 24 technical support forum on the Internet.

SPECIFICATIONS

Form Factor

Single Display	NLX, ATX
Dual Display	ATX only

Interface

AGP

Standard Memory

16MB SGRAM

DAC Speed

300MHz

Data Path

128-bit External/256-bit Internal

Color Space Conversion

Yes

Scaling

Yes

Quick Draw Support

Yes

DCI & DirectX Video Playback

Yes

MS DirectDraw Support

Yes

3D Support

Yes

QUICKSPECS

Matrox Millennium G400 AGP Graphics Controllers

Engine Acceleration	3 ROP bitBLT Line Draw Text Color Expansion Basic Video Color Conversion and Scaling Triangle Setup Engine
Output	
Single Display	Analog, digital available with DVI daughter board
Dual Display	Analog, 2 ports
OS Support	OS/2, Windows 3.1, Windows 95, Windows 98, Windows NT 3.51, and Windows NT 4.0
Other	PCI bus mastering Texture mapping support Flat and Gouraud shading Direct 3D support Anisotropic Filter Perspective texture Specular highlighting Wireframe Dithering Full scene anti-aliasing OpenGL support Vertex fog Dual Texture Mapping Environment Bump Mapping AGP 2X/4X with Sideband Addressing

Refresh Rate with Memory Indicated^{1,2}

With 16 MB SGRAM

Colors	256 Colors	65K Colors	16.7M Colors
640 x 480	85 Hz	85 Hz	85 Hz
800 x 600	85 Hz	85 Hz	85 Hz
1024 x 768	85 Hz	85 Hz	85 Hz
1152 x 864	85 Hz	85 Hz	85 Hz
1280 x 1024	85 Hz	85 Hz	85 Hz
1600 x 1200	85 Hz	85 Hz	85 Hz
1800 x 1440	85 Hz	85 Hz	85 Hz
1800 x 1440	85 Hz	85 Hz	85 Hz
1920 x 1080	85 Hz	85 Hz	85 Hz
1920 x 1440	75 Hz	75 Hz	75 Hz
2048 x 1536	65 Hz	65 Hz	65 Hz

COMPATIBILITY

Single Display	Compaq Deskpro EP and EN Series models with APG ports and BX chipset, Compaq Professional Workstations AP550 and SP750, Compaq Deskpro Workstation AP240 (820 chipset), and Compaq Deskpro Workstation AP250
Dual Display	Compaq Professional Workstations AP200, AP550 and SP750, and Compaq Deskpro Workstation AP250

¹DVI daughter board enables output at 1280 x 1024 x 16.7M colors at 85Hz.

²DualHead second analog output supports maximum resolution of 1280 x 1024 x 16.7M. colors at up to 75Hz.