PRODUCT DESCRIPTION

GeForce2 MX™ brings the power of NVIDIA’s 2nd generation Graphics Processing Units (GPUs) to Apple® Power Mac™ computers. With its innovative TwinView®Architecture, GeForce2 MX is the only GPU capable of driving two displays independently, including one Apple display which uses the Apple Display Connector (ADC), and any analog display device with VGA connector such as a monitor or projector. The result—a stunning visual experience consumers have come to expect from NVIDIA products.

NVIDIA’s GPUs go far beyond traditional graphics processors. A GPU offloads all transform and lighting calculations from your CPU, freeing the CPU to complete its tasks faster than ever. Not only will your graphics look better and run more smoothly, but your computer’s performance will improve as well.

For an even higher level of realism, the NVIDIA Shading Rasterizer (NSR) incorporates real-time per-pixel shading making 3D elements look and behave like their real-life counterparts: wood looks grainy, lit objects gleam in the hotspots yet also cast realistic shadows, and water ripples and rolls into waves.

GeForce2 MX not only provides incredible 3D graphics, it is a complete video solution. QuickTime™ movies will look and perform even better because of a newer level of video acceleration. The integrated High-Definition Video Processor (HDVP) supports DVD playback and high-definition resolution ATSC 720p at 60fps. This means that consumers can turn their Power Mac into a full-quality DVD player, and view the latest DVD content on their Mac in pristine real-time quality.

GeForce2 MX continues NVIDIA’s tradition of bringing leading edge technology with its integrated VGA, 2D, 3D, and video in a single-chip solution. The GeForce2 MX GPU delivers stunning visuals for a whole range of applications from crystal-clear, high-resolution 2D/3D graphics on multiple displays to 3D games; to video applications such as HDTV, DVD, desktop movies, editing, and video conferencing.

The GeForce2 MX features full support for the Mac environment, offering maximum performance in all graphics applications. There is full support for the Mac® OS. GeForce2 MX also delivers the industry’s fastest OpenGL® acceleration in its class.
GEFORCE2 MX FEATURES

• TwinView Architecture
  ° Supports simultaneous connection of displays attached to the Apple Display Connector (ADC) and VGA connector.
  ° Apple Display Connector supports:
    - Apple Cinema Display - 22-inch LCD
    - Apple Studio Display - 17-inch LCD
    - Apple Studio Display - 15-inch LCD
    - Apple Studio Display - 17-inch CRT
  ° VGA Connector supports:
    - Analog flat panel
    - Analog CRT displays
    - Projector
• Second generation 256-bit GPU architecture
  ° 32-bit color
  ° 32-bit Z/stencil buffer
• Integrated hardware transform engine
• Integrated hardware lighting engine
  ° 8 lights per rendering pass
  ° Any combination of infinite, local, directional or spot
  ° Colored lights
• NVIDIA Shading Rasterizer
  ° Real-time per-pixel effects
  ° Per-pixel bump mapping (Dot3)
  ° Emboss bump mapping
  ° Bi-directional reflectance distribution functions (BRDF)
  ° Multitexture and multipass
  ° Procedural textures
  ° Stencil
  ° Stipple
  ° Fog - radial or linear
  ° Depth cueing
• Cube environment mapping
  ° Reflection maps
  ° Accurate, real-time environment reflections
• High-performance 2D rendering engine
  ° Optimized for 32-, 24-, 16-, 15- and 8-bpp modes
  ° Multi-buffering (double, triple, or quad) for smooth animation and video playback
• High-quality HDTV/DVD playback
  ° High-Definition Video Processor for full-screen, full-frame video playback of HDTV and DVD content
  ° Independent hardware color controls for video overlay
  ° Hardware color-space conversion (YUV 4:2:2 and 4:2:0)
  ° Motion compensation
  ° 5-tap horizontal by 3-tap vertical filtering
  ° 8:1 up/down scaling
  ° Per-pixel color keying
  ° Multiple video windows supported for CSC and filtering
  ° DVD sub-picture alpha-blended compositing
• Operating systems
  ° Mac OS 9
• System Interface
  ° Comprehensive AGP 4X support, including fast writes and execute mode
  ° Supports Apple Displays via ADC (Apple Display Connector)

PERFORMANCE

• 800 million texel/sec fill rate
• 25 million triangles/sec through T&L and setup
• 2.9 GB/sec memory bandwidth
• 32 MB frame buffer size
• 350MHz RAMDAC
• Maximum 3D/2D resolution of 2048 x 1536 @ 75Hz

COMPATIBILITY

• API support
  ° OpenGL 1.2 and lower
  ° QuickDraw
  ° QuickTime
  ° 3D Rave
• Mac OS 9 driver support

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