



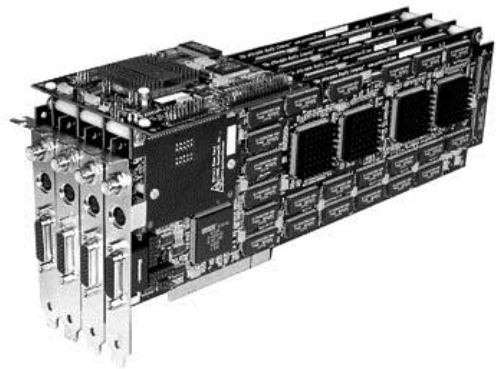
Mercury

Advanced Interactive 3D Sub-pixel Anti-Aliasing Graphics Subsystem

D A T A S H E E T

OVERVIEW

The Quantum3D Mercury subsystem for Quantum3D's Heavy Metal GX+ visual computing systems provides state-of-the-art hardware full-scene, sub-pixel anti-aliasing for rendering complex cultural features while eliminating distracting visual artifacts such as object popping, edge crawling, and unwanted patterns in replicated texture maps. Optimized for complex visual simulation and training applications, Mercury utilizes four linked Quantum3D Obsidian 2 200SBI graphics subsystems to deliver anti-aliasing superior to 2x2 sub-pixel averaging. Mercury interpolates and fills the surrounding pixels to create a continuous image and provides advanced image quality at a fraction of the cost of traditional image generators.



SPECIFICATIONS

- Full-scene hardware anti-aliasing at sustained fill rate with image quality better than 2x2 sub-pixel averaging
- 180 Megapixels per second trilinear filtered texture fill rate (with full-scene hardware anti-aliasing, Z, alpha, and per-pixel fog enabled)
- 135 MHz RAMDAC with analog RGB output support for non-interlaced resolutions from 640 x 480 to 1024 x 1024
- 8 Megatexel texture memory with 8-bpp and 16-bpp RGB, YIQ and CI texture format support
- Perspective correct bilinear and trilinear texture filtering with per-pixel LOD MIP mapping with support for Gouraud modulated, detailed and projected texture mapping
- Transparency and chroma-key support with dedicated color mask
- Per-pixel atmospheric effects with simultaneous OpenGL-compliant alpha blending and support for edge-based polygonal anti-aliasing
- Sub-pixel/sub-texel (16 sub-sample) positioning and 22-bpp effective depth and color buffer (single, double and triple buffering)
- Medusa™ VGA pass-through cable with support for VESA Display Power Management (DPMS) and Display Data Channel (DDC) 2b
- Support for SwapLock™ and SyncLock™ synchronization
- Quad Obsidian 2 200SBI architecture full-scene anti-aliasing module
- 96 MB 100 MHz Memory (19.2 GB/sec graphics memory bandwidth)
- 33 MHz PCI-bus interface with support for independent triangles, tri-strips and meshes for peak rendering performance of 750 thousand independent, textured 10-pixel triangles per second

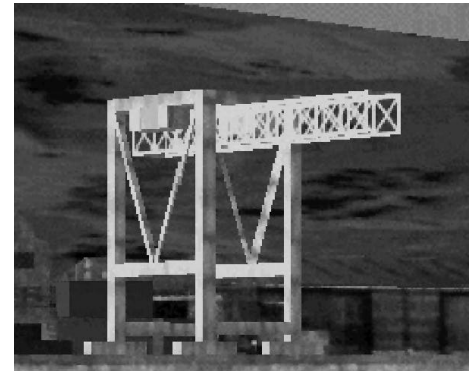


Image with Anti-Aliasing Disabled

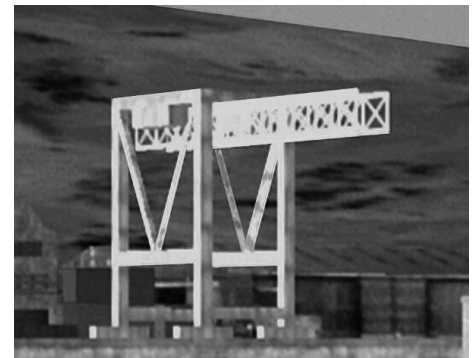


Image with Anti-Aliasing Enabled