

ProVidia 9682™

64-Bit UMA Win95 and Video Accelerator

64 Bit High Performance GUI Accelerator

- 64 bit internal memory data bus
- 256 Raster Operations (ROPs) for 8 bits per pixel (PseudoColor), 15/16 bits per pixel (HiColor), and 24/32 bits per pixel (true color) graphic modes
- Optimized 2D graphic engine for BitBLTs, line drawing, short stroke vectors, rectangle fills, clipping, and text transfer
- Built-in hardware cursor, pattern register
- 24 bit packed true color acceleration

Unified Memory Architecture (UMA) Support

- Unified frame buffer support for leading UMA core logic chip sets
- Minimal system performance degradation w/o L2 cache

Win95 DirectDraw DirectVideo Acceleration

- FontCache enables mono to true color expansion
- DirectDraw (Games) and DirectVideo (MPEG/ Video) Acceleration through on-chip Color Space Conversion, H/V scaling, overlay control, Double buffering for Page flipping, chroma key, color keys and sprites
- Acceleration of Software MPEG Players like Compcore, Mediamatics, Xing (Win/Win95)

Direct Interface to MPEG and Video Decoders

- Video port for YUV 4:2:2 or YUV 4:1:1 inputs
- Direct interface to MPEG or video decoder for live video inputs (TV, Camera, VCR, LDP)
- Dual aperture for simultaneous access for Graphics and Video to the display memory areas

True Video® Scaling Support

- Provides highest video quality using Horizontal and Vertical Interpolation along with Trident's proprietary edge smoothing hardware when scaling real time video
- Anti-tearing support

Highly Integrated Design

- Fully integrated 24 bit True color DAC with color look-up table, 135 MHz clock synthesizer, read cache, command FIFO, and GUI accelerator
- 256x18 color look-up table with HiColor and True color bypass mode support
- Two wire interface to EEPROM/VESA DDC2B

Simple Bus Interface Support

- Flexible Bus Interface Unit for zero wait state, 32 bit glueless connection to PCI Rev 2.1 Bus w/o EXT TTL
- PCI burst mode, big and little-endian format
- Memory Mapped I/O or PCI Bus
- Zero-wait state host write buffer



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Extended Display Resolution

- Non-interlaced display through 1280x1024-256, 1024x768-64K, 1024x768-16M, 800x600-16M or 640x480-16M colors
- Interlaced display through 1600x1200-256, 1280x1024-64K colors

Flexible Display Memory Interface

- 1 MB to 4 MB display memory configuration with densities of 256Kx4, 256Kx8, and 256Kx16
- Only two 256Kx16 DRAMs for 1024x768-256
- EDO DRAM, Dynamic frame buffer sharing

“Deep Green PC” Power Management

- RAMDAC power-down and clock idle interface
- High Performance

Complete Hardware Compatibility

- PCI Rev 2.1 compliant
- Supports VESA DDC2B, and VAFC/FC
- VGA BIOS, register, and H/W level compatible
- Pin compatible with TGUI9660/9680, 208 pin PQFP

ProVidia9682 Application Diagrams

