

**DIAMOND**

**VIPER**<sup>®</sup>

**X1600 PRO**



## Viper X1600 Pro

Cinematic 2D/3D Graphics Card

**Featuring:** RADEON™ X1600 PRO

**Memory:** 256MB/512MB

**Slot Type:** AGP or PCI Express

**With:** Dual DVI / TV-Out / HDTV



## Overview

### LATEST TECHNOLOGIES

Takes advantage of the revolutionary new Avivo video and display technology platform to enable High-Definition visual experience and enhance digital video, gaming and photos.

#### AVIVO

- Video and Display Perfection
- True-to-Life Image Reproduction
- Sharp video and photos, smooth video playback
- Universal connectivity for TVs and display



#### CROSSFIRE

- Combined Multi-GPU power for a new dimension of graphics capability
- High-performance processor sharing
- High compatibility with games, graphics cards, motherboards, and third party component

\* Crossfire not available with AGP version

\* Crossfire not available with HyperMemory™

\* Crossfire only available on motherboards that support dual PCI Express x16 slots

#### Features

- 157 million transistors on 90nm fabrication process
- Dual-link DVI
  - Twelve pixel shader processors
  - Five vertex shader processors
  - 128-bit 4-channel DDR/DDR2/GDDR3 memory interface
  - Native PCI Express x16 bus interface
    - AGP 8x configurations also supported with AGP-PCI-E external bridge chip
  - Dynamic Voltage Control

#### Ring Bus Memory Controller

- 256-bit internal ring bus for memory reads
- Programmable intelligent arbitration logic
- Fully associative texture, color, and Z/stencil cache designs
- Hierarchical Z-buffer with Early Z test
- Lossless Z Compression (up to 48:1)
- Fast Z-Buffer Clear
- Z/stencil cache optimized for real-time shadow rendering

#### Advanced Image Quality Features

- 64-bit floating point HDR rendering supported throughout the pipeline
  - Includes support for blending and multi-sample anti-aliasing
- 32-bit integer HDR (10:10:10:2) format supported throughout the pipeline
  - Includes support for blending and multi-sample anti-aliasing
- 2x/4x/6x Anti-Aliasing modes
  - Multi-sample algorithm with gamma correction, programmable sparse sample patterns, and centroid sampling
  - New Adaptive Anti-Aliasing feature with Performance and Quality modes
  - Temporal Anti-Aliasing mode
  - Lossless Color Compression (up to 6:1) at all resolutions, including widescreen HDTV resolutions
- 2x/4x/8x/16x Anisotropic Filtering modes
  - Up to 128-tap texture filtering
  - Adaptive algorithm with Performance and Quality options
- High resolution texture support (up to 4k x 4k)