

# Ati Radeon 9800XT

## Specifications

### System Requirements

- RADEON™ 9800 Series of products requires connection to your PC's internal power supply for operation. Consult your system builder or OEM to ensure your system has an adequate power supply. Otherwise, ATI recommends a 300-Watt power supply or greater to ensure normal system operation where a number of other internal devices are installed.
- Intel® Pentium® 4, AMD® Athlon® or higher with AGP 8X (0.8v), 4X (1.5V) or Universal AGP 3.0 bus configuration (8X/4X)
- 128MB of system memory
- Installation software requires CD-ROM drive
- DVD playback requires DVD drive

### Graphics Technology

- RADEON™ 9800 XT, RADEON™ 9800 PRO, or RADEON™ 9800 graphics technology

### Memory Configuration

- 128MB or 256MB of double data rate SDRAM

### Operating Systems Support

- Windows® XP
- Windows® 2000
- Windows® Me

### Features

- Eight parallel rendering pipelines
- Four parallel geometry engines
- 256-bit DDR memory interface
- AGP 8X support
- **SMARTSHADER™ 2.1**
  - Full support for Microsoft® DirectX® 9.0 programmable vertex and pixel shaders in hardware
  - 2.0 Vertex Shaders support vertex programs up to 65,280 instructions with flow control
  - 2.0 Pixel Shaders support up to 16 textures per rendering pass
  - New F-buffer technology supports pixel shader programs with unlimited instructions
  - 128-bit, 64-bit & 32-bit per pixel floating point color formats
  - Multiple Render Target (MRT) support
  - Shadow volume rendering acceleration
  - Complete feature set also supported in OpenGL® via extensions

- **SMOOTHVISION™ 2.1**
  - 2x/4x/6x full scene anti-aliasing modes
  - Adaptive algorithm with programmable sample patterns
  - 2x/4x/8x/16x anisotropic filtering modes
    - Adaptive algorithm with bi-linear (performance) and tri-linear (quality) options
- **HYPER Z™ III+**
  - 3-level Hierarchical Z-Buffer with early Z test
  - Lossless Z-Buffer compression (up to 24:1)
  - Fast Z-Buffer Clear
  - Z cache optimized for real-time shadow rendering
- **TRUFORM™ 2.0**
  - 2nd generation N-Patch higher order surface support
  - Discrete and continuous tessellation levels per polygon
  - Displacement mapping
- **VIDEOSHADER™**
  - Seamless integration of pixel shaders with video
  - **FULLSTREAM™** video de-blocking technology
  - Noise removal filtering for captured video
- MPEG-2 decoding with motion compensation, iDCT and color space conversion
- All-format DTV/HDTV decoding
- YPrPb component output\*
- Adaptive de-interlacing and frame rate conversion
- Dual integrated display controllers
- Dual integrated 10-bit per channel 400 MHz DACs
- Integrated 165 MHz TMDS transmitter (DVI 1.0 compliant and HDCP ready)
- Integrated TV Output support up to 1024x768 resolution
- Windows® Logo Program compliant

*\*with optional HDTV adapter available from [ATI Online Store](#)*

## Warranty

- 3-year limited warranty

## Mode Tables

### 2D DISPLAY MODES

Resolutions, colors and maximum refresh rates (Hz) in 256, 65K or 16.7M colors

| Monitor Resolution | Hz  |
|--------------------|-----|
| 640x480            | 200 |
| 800x600            | 200 |
| 1024x768           | 200 |

|                 |     |
|-----------------|-----|
| 1152x864        | 200 |
| 1280x1024       | 160 |
| 1600x1200       | 120 |
| 1920x1080* 16:9 | 120 |
| 1920x1200       | 100 |
| 1920x1440       | 90  |
| 2048x1536       | 85  |

*\*16:9 aspect ratio monitors are supported on 1920x1080 and 848x480 on Windows® XP, Windows® 2000 and Windows® ME. The complete list of resolutions depends on the driver version and operating system. NOTE: resolutions are limited by the performance of the attached monitor.*

### **MAXIMUM 3D RESOLUTIONS**

(with 128MB Frame Buffer)

|                   |                  |
|-------------------|------------------|
| <b>65K colors</b> | <b>2048x1536</b> |
| 16.7M colors      | 2048x1536        |