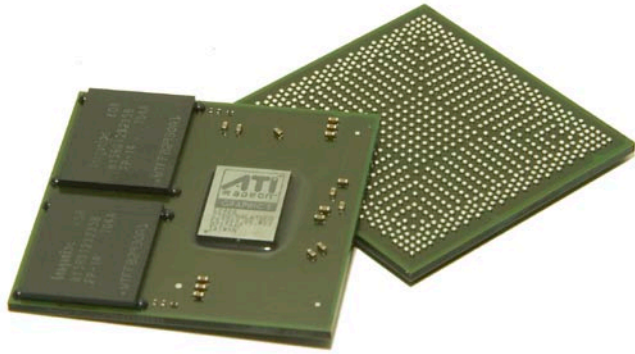


ATI RADEON™ E2400 Product Brief



Product overview

The ATI Radeon™ E2400 is a high-performance graphic processing unit (GPU) that delivers exceptional 2D, 3D, and multimedia graphics performance for embedded systems. With two independent display controllers, the ATI Radeon E2400 offers a highly flexible display architecture, which includes integrated DVI, LVDS, dual-RGB, and HD TV-Out. A built-in Unified Video Decoder enables on-GPU H.264 and VC-1 decode.

Based on 65nm process technology, the ATI Radeon E2400 offers exceptional performance, with the flexibility to adjust clock settings to reduce power consumption as needed. At 31mm x 31mm, the compact package size with 128MB of GDDR3 memory integrated on the ASIC opens up the possibility to use high quality graphics in a variety of space constrained designs and helps eliminate the need for potentially complicated on-PCB memory layout.

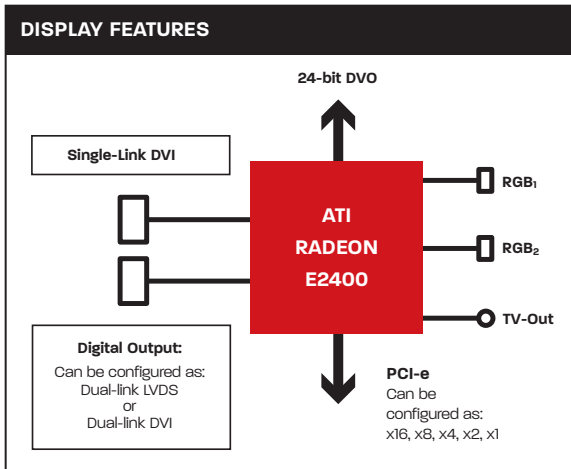
With AMD's revolutionary Unified Shader Architecture, the ATI Radeon E2400 fully supports Microsoft® DirectX® 10.0 and brings advanced Vertex and Pixel processing for embedded display solutions. This can help customers develop richer, visually appealing content for their applications, with the confidence that their graphics requirements can be met for the entire product lifecycle.

Bringing exciting opportunities for embedded systems

Building on a proven track record of customer-centric innovation, AMD recognizes the five-year product lifecycle requirements of the embedded market. This longevity product has been developed specifically to bring exciting new possibilities for embedded display solutions and can help eliminate barriers to the adoption of advanced graphics. A flexible architecture along with available technical documentation and design guides create an opportunity for customers to develop innovative solutions with fast time-to-market.

Product features

- Power efficient 65nm fabrication process
- Engine clock scalable up to 600 MHz
- Memory clock scalable up to 700 MHz
- 64-bit interface to 128MB GDDR3 memory
- Native PCI Express x16 bus interface with flexibility to operate in x16, x8, x4, x2, and x1 modes
- ATI Avivo™ HD video and display architecture
- ATI PowerPlay™ 7.0 power and thermal management technology
- Internal and external spread spectrum support for LVDS and memory CLK
- Fully DirectX® 10.0 compliant
- Shader Model 4.0 geometry and pixel support in a unified shader architecture:
 - Full speed 32-bit floating point processing per component
 - High dynamic range rendering with floating point blending, texture filtering and anti-aliasing support
- Support for OpenGL® 2.0
- Anti-aliasing filtering:
 - 2x/4x/8x modes
- Anisotropic filtering:
 - 2x/4x/8x/16x modes
 - Up to 128-tap texture filtering
- Advanced Texture Compression (3Dc+™):
 - High quality 4:1 compression for normal maps and luminance maps
- Up to 8k x 8k textures, including 128b/pixel texture are supported
- High efficiency ring bus memory controller



Display features

- Dual independent display controllers that support true 30-bpp throughout the display pipe
- Advanced video capabilities, including high fidelity gamma, color correction, and scaling
- Adaptive per-pixel de-interlacing and frame rate conversion (temporal filtering)
- Enhanced dithering algorithm for LCD panels
- LVTM Transmitter which can be configured as either:
 - Dual-link LVDS
 - Up to UXGA
 - LVDS can drive either 18-bpp or 24-bpp displays
 - Single-link or dual-link DVI
 - Up to UXGA in single-link; WUXGA in dual-link mode
- Integrated independent DVI Interface
 - Single-link output for resolutions up to UXGA
- Supports industry standard EIA-861B video modes
- Two Integrated triple 10-bit DACs
 - Dual RGB output
 - Maximum pixel frequency of 400MHz
- Internal consumer electronics-class TV encoder for YPbPr, NTSC, and PAL (all variants supported)
 - Component output: YPbPr for 480i, 480p, 576i, 576p, 720p, and 1080i
 - Configurable 12-bit DDR, 24-bit SDR digital outputs (DVO)

- Motion Video Decode for HD DVD/Blu-ray technology
 - Dedicated Universal Video Decoder hardware for H.264 and VC-1 decode
- MPEG1/2/4 decode and encode acceleration:
 - Hardware motion compensation
 - iDCT/DCT and color space conversion
 - HW DXVA parser support for iDCT
 - MPEG-4 Simple Profile support

For more information, please visit www.amd.com/embedded

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AMD (NYSE:AMD) designs and produces innovative microprocessors and low-power processor solutions for the computer, communications, and consumer electronics industries. AMD is dedicated to delivering standards-based, customer-focused solutions for technology users, ranging from enterprises and governments to individual consumers.

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