Standard PCI Express® Add-In Board for Embedded Market — Drives Up to Four Displays

**PCI EXPRESS® ADD-IN BOARD**
- Single slot
- Passive heatsink
- Multiple display output models

**AMD RADEON™ E6460 EMBEDDED GPU**
- Discrete GPU with 512 MB GDDR5

**EXCEPTIONAL GRAPHICS & VIDEO**
- Microsoft® DirectX® 11 capable
- 3DMark® VantageP score of P2195¹
- 3rd generation video decoder

**AMD EYEFINITY TECHNOLOGY²**
- Up to 4 display outputs

**HD3D TECHNOLOGY³**
- Blu-ray 3D, stereo 3D graphics

**EXTENDED AVAILABILITY**
- 5 year planned supply⁴
- Dedicated support

---

**Embedded Applications Benefit from Feature Rich PCI Express® Board**

The exceptional feature set of the AMD Radeon™ E6460 embedded discrete graphics processor (GPU) is now available on an industry standard PCI Express® PC add-in board. Featuring advanced 3D graphics, video and compute capabilities, this board is available in a variety of different models with a passive thermal solution and different display output options (DVI, DisplayPort). Supporting up to four displays with AMD Eyefinity multi-display technology², the AMD Radeon E6460 graphics board is ideal for entry level digital signage, video wall, arcade and casino gaming systems.

**Exceptional Graphics and Compute Capabilities**

The AMD Radeon E6460 graphics board enables an exceptional entertainment experience with immersive desktop-level 3D graphics and outstanding multimedia features. The advanced 3D graphics engine supports Microsoft® DirectX® 11 technology for superior graphics rendering. The third generation unified video decoder enables picture-in-picture, dual HD decode of H.264, VC-1, MPEG4 and MPEG2 compressed video streams. Delivering 192 GFLOPs of peak single precision floating point performance, the AMD Radeon™ E6460 graphics board is ideal for general purpose, graphics processing unit (GPGPU) applications.

**Ultimate Display Flexibility with Support for Up to Four Displays**

To suit different display applications, the AMD Radeon E6460 graphics board is available in different models with different output display interfaces including (a) dual DVI + mini DisplayPort 1.2, (b) four mini DisplayPort and (c) four DVI (with four mini DisplayPort to DVI dongles) outputs. With AMD Eyefinity multi-display technology, the four displays can be driven independently or all together as a single large surface. With the multi-stream transport (MST) capabilities of DisplayPort 1.2, up to three displays to be driven from a single DisplayPort 1.2 connector.

**Designed to Perform, Engineered to Lead, Built to Win**

AMD understands the unique requirements of the embedded market. Building on a proven track record of customer-centric innovation, AMD offers the AMD Radeon™ E6460 graphics board with a 5 year planned product life cycle. With specialized technical support and fast time-to-market, the AMD Radeon™ E6460 graphics board provides system designers with an exciting and innovative solution for their embedded graphics or GPGPU applications.

---

**AMD RADEON E6460 GRAPHICS OR PCIE EXPRESS® BOARD MODELS**

- Dual DVI + DisplayPort
- 4x DisplayPort
- 4x DVI (4x mDP to DVI dongle)

© 2012. Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD arrow logo, AMD Athlon, Radeon, Catalyst, and combinations thereof are trademarks of Advanced Micro Devices, Inc. PCie and PCI Express are registered trademarks of PCI-SIG. HDMI is a trademark of HDMI Licensing, LLC. Linux is a registered trademark of Linus Torvalds. Microsoft, Windows, DirectX and Windows Vista are registered trademarks of Microsoft Corporation in the U.S. and/or other jurisdictions. 3DMark is a registered trademark of Futuremark Corporation. OpenCL and the OpenCL logo are trademarks of Apple Inc. used by permission by Khronos. All other company and/or product names are for informational purposes only and may be trademarks and/or registered trademarks of their respective owners. P1D 52229A
Contact your local AMD distributor for ordering information.

OPN: 100-438047 E6460 512 MB RoHs AES PCIe Board DVI + Dual-Link DVI-I + mDP 1.2 w Heatsink
OPN: 100-438062 E6460 512 MB RoHs AES PCIe Board 4x mDP w Heatsink
OPN: 100-438048 E6460 512 MB RoHs AES PCIe Board 4x mDP w Heatsink & mDP->DP dongles
OPN: 100-438049 E6460 512 MB RoHs AES PCIe Board 4x DVI w Heatsink & DP->DVI dongles

1. System configuration: 1280x1024, E6460: 600e/800m, 512MB GDDR5, AMD: AMD Athlon™ II X4 620 @ 2.6GHz, MS Dispaye GA-MA770T-UD3P, Corsair XMS3 4GB (2x2GB) 1333MHz (T969401/3333A9-3D), Windows® 7 64-bit Ultimate

2. AMD Eyefinity technology can support multiple displays with some limitations. AMD Embedded Catalyst® Software driver version 8.81 or higher required to support AMD Eyefinity multi-display technology. Microsoft® Windows® 7, Windows Vista®, or Linux® is required in order to support more than 2 displays. BLS (“Single Large Surface”) functionality requires all display outputs to be configured as DisplayPort with an identical display resolution on all configured displays.

3. AMD HD3D is a technology designed to enable stereoscopic 3D support in games, movies and/or photos. Additional hardware (e.g. 3D enabled panels, 3D-enabled glasses/emitter, Blu-ray 3D drive) and/or software (e.g. DVD/Blu-ray discs, 3D middleware, games) are required for the enablement of stereoscopic 3D.

4. Part availability is planned for 5 years from date of announcement and subject to change without notice.

5. 3DMark® Vantage FT6, nominal silicon, 25 degC: 1x1020x1080 displays, except for AMD Radeon E6460 2xDVI+HDCP graphics board, 3x1020x1080 displays.

6. AMD APP technology is a set of technologies designed to improve video quality and enhance application performance. Full enablement of some features requires support for OpenCL™ or DirectCompute (including AMD’s Universal Video Decoder (UVD)). Not all products have all features and full enablement of some capabilities and may require complementary products.

7. OpenCL® certification expected.

8. Not all display interfaces available at same time. Maximum resolution dependent on maximum supported display clock, link bit-rate and available memory bandwidth. Two internal PLLs + an integrated DisplayPort reference clock can support (1) two legacy display outputs + two DisplayPort outputs, (2) one legacy display output + three DisplayPort outputs or (3) four DisplayPort outputs. Legacy display = VGA, DVI, HDMI or LVDS. AMD Eyefinity multi-display technology has certain restrictions on supported display interfaces.

9. Some features not supported (e.g. AMD Eyefinity, DirectX 11, AMD APP technology etc.)

E6460 Graphics Processing Unit

Process Technology
40 nm

Graphics Engine / Memory Clock
600 MHz Engine/800 MHz Memory

Memory
64-bit, 512 MB GDDR5, 25.6 GB/s

Host Interface
PCI Express® Version 2.1 (x1, x2, x4, x8, x16)

Graphics
160 shaders
3D Mark® VantageP score of 2195
DirectX® 11, Shader Model 5.0, OpenGL 4.1

Video
H.264, VC-1, MPEG-2, MPEG-4 part 2 decode
Blu-ray 3D & stereo 3D graphics with AMD HD3D technology

Compute
192 GFLOPs/s single precision floating point (peak)
AMD APP technology™, OpenCL™ 1.1, DirectCompute 11

Display
Up to 4 displays with AMD Eyefinity multi-display technology

Audio
Integrated HD audio controller (Azalia) & Codec

Display Interfaces® (max resolution)

Analog VGA
1x Triple 10-bit RGB DAC, 400 MHz, (2048 x 1536)

Single / Dual-Link DVI Resolution (w HDCP)
2x single-link DVI, (1600 x 1200) / 1x dual-link DVI, (2560 x 1600), 162 MPixels per link

DisplayPort
2x DisplayPort 1.1a, 3x DisplayPort 1.2, (2560 x 1600)

Board Model Display Options

Dual DVI + DisplayPort
1x single-link DVI-D + 1x dual-link DVI-I + 1x mini DisplayPort 1.2a

4x DisplayPort
1x mini DisplayPort 1.1a + 3x mini DisplayPort 1.2a

4x DVI
4x single-link DVI-D (with 4x mini DisplayPort -> DVI dongles)

Software Support

Windows® XP / Windows® XP Embedded®
yes

Windows Vista® / Windows® 7
yes

Linux® (x86)
yes