



Product Brief

AMD Radeon™ E6760 Embedded GPU

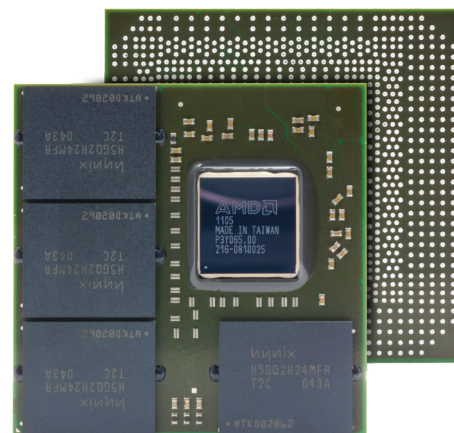
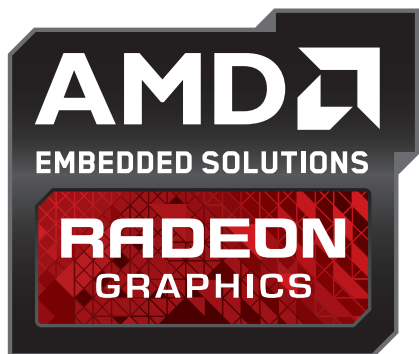
**Embedded Discrete GPU enables Exceptional Graphics,
Computing and Multiple Displays**

Immersive Desktop Graphics with Outstanding Multimedia Features

The AMD Radeon™ E6760 embedded discrete graphics processor (GPU) enables an exceptional entertainment experience with immersive desktop-level 3D graphics and outstanding multimedia features. The advanced 3D graphics engine and programmable shader architecture support Microsoft® DirectX® 11 technology for superior graphics rendering. The third generation unified video decoder enables dual HD decode of H.264, VC-1, MPEG4 and MPEG2 compressed video streams. With AMD Eyefinity1, AMD APP2 and AMD HD3D3 technologies, designers of casino gaming, arcade and medical imaging systems can deliver products with a compelling, competitive advantage.

Accelerated GPGPU Computing with Open Standards

Delivering 576 GFLOPs of peak single precision floating point performance, the AMD Radeon™ E6760 GPU is ideal for general purpose, graphics processing unit (GPGPU) applications such as ultrasound, radar and video surveillance. Using the open, industry standard OpenCL™ programming language, system designers can speed application development with the AMD Accelerated Parallel Processing (APP) Software Development Kit (SDK). The AMD APP SDK includes developer tools such as compiler, debugger, code profiler and math libraries.



GPU and Memory in One Package

- Multi-chip module BGA
- 128-bit wide, 1 GB GDDR5

Superior next generation graphics

- Advanced 3D graphics engine
- Microsoft® DirectX® 11 capable
- 3DMark™ Vantage (P) 58704

Supercomputing GPGPU

- AMD APP technology
- 480 processing elements
- 576 GFLOPs SPFP (peak)
- OpenCL™ 1.15

Outstanding video features

- 3rd generation video decoder
- H.264, VC-1, MPEG-2
- Blu-ray & Stereo 3D
- Dual HD decode & PiP

AMD Eyefinity Technology

- Up to six display outputs

Extended Availability

- 5 year supply6
- Dedicated supports

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AMD Embedded GPU Comparison	AMD Radeon™ E6460	AMD Radeon™ E6760
Package Dimensions	GPU + memory, 33 mm x 33 mm BGA	GPU + memory, 37.5 mm x 37.5 mm BGA
Thermal Design Power (TDP)	16W ⁷	35W ⁸
Graphics Processing Unit		
Process Technology	40 nm	40 nm
Graphics Engine Operating Frequency (max)	600 MHz	600 MHz
CPU Interface	PCI Express® 2.1 (x1, x2, x4, x8, x16)	PCI Express® 2.1 (x1, x2, x4, x8, x16)
Shader Processing Units	2 SIMD engines x 80 processing elements = 160 shaders	6 SIMD engines x 80 processing elements = 480 shaders
Floating Point Performance (single precision, peak)	192 GFLOPs	576 GFLOPs
3DMark™ VantageP Score ⁴	2195	5870
Display Engine	AMD APP, AMD Eyefinity & AMD HD3D technologies	AMD APP, AMD Eyefinity & AMD HD3D technologies
DirectX™ capability	DirectX® 11	DirectX® 11
Shader Model	Shader Model 5.0	Shader Model 5.0
OpenGL	OpenGL 4.1	OpenGL 4.1
Compute	AMD APP technology, OpenCL™ 1.1, DirectCompute 11	AMD APP technology, OpenCL™ 1.1, DirectCompute 11
Unified Video Decoder (UVD)	UVD3 for H.264, VC-1, MPEG-2, MPEG-4 part 2 decode	UVD3 for H.264, VC-1, MPEG-2, MPEG-4 part 2 decode
Internal Thermal Sensor	yes	yes
Memory		
Operating Frequency (max)	800 MHz / 3.2 Gbps	800 MHz / 3.2 Gbps
Configuration type	64-bit wide, 512 MB, GDDR5, 25.6 GB/s	128-bit wide, 1 GB, GDDR5, 51.2 GB/s
Display Interfaces^{1,9}		
Analog RGB	1x Triple 10-bit DAC, 400 MHz	1x Triple 10-bit DAC, 400 MHz
Analog TV	NA	NA
Single / Dual-Link DVI	4x Single-Link DVI / 1x Dual-Link DVI	4x Single-Link DVI / 1x Dual-Link DVI
DisplayPort 1.1a	2x	2x
DisplayPort 1.2	3x	4x
Single / Dual-Link LVDS	1 x Single-Link / Dual-Link	1 x Single-Link / Dual-Link
HDMI™	1x HDMI™ 1.4a	1x HDMI™ 1.4a
Number Independent Displays (max)	Up to 2 display outputs from VGA, Single / Dual-Link DVI, Single / Dual-Link LVDS, HDMI™ 1.4a, DisplayPort 1.1a / 1.2 + up to 2 display outputs from DisplayPort 1.1a / 1.2	Up to 2 display outputs from VGA, Single / Dual-Link DVI, Single / Dual-Link LVDS, HDMI™ 1.4a, DisplayPort 1.1a / 1.2 + up to 4 display outputs from DisplayPort 1.1a / 1.2
HD Audio Controller (Azalia)	1x	1x
HDCP Keys	4x	6x
DVO	12-bit DDR or 24-bit SDR / DDR	12-bit DDR or 24-bit SDR / DDR
Software Support		
Windows® XP / Windows® XP Embedded ¹⁰	yes	yes
Windows® Vista	yes	yes
Windows® 7 / Windows® 7 Embedded	yes	yes
Linux® (x86)	yes	yes

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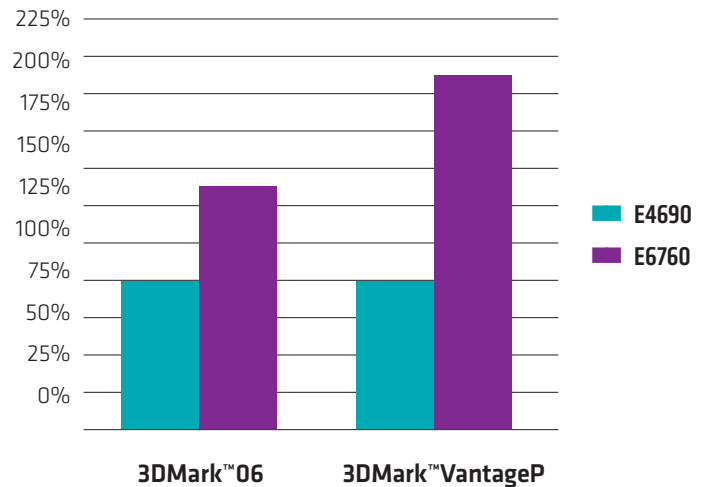
Multi-Display Support with AMD Eyefinity Technology

Simplify digital signage systems by driving up to six display outputs with AMD Eyefinity multi-display technology. Drive all displays as a single large surface or individually through integrated interfaces such as analog RGB, single/dual-link DVI, single/dual-link LVDS, HDMI™ 1.4a, and DisplayPort™ 1.1a/1.2. Leverage HDMI 1.4a for stereoscopic video and DisplayPort 1.2 for higher link speeds and multi-stream transport (MST) capabilities.

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™ E6760 embedded discrete GPU with a 5 year planned product life cycle⁶. With specialized technical support and fast time-to-market, the AMD Radeon™ E6760 GPU provides system designers with an exciting and innovative solution for their embedded graphics or GPGPU applications.

Relative Performance:
AMD Radeon™ E4690 vs E6760 GPU⁴
(higher is better)



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- 1 AMD Eyefinity technology can support multiple displays limited by display output clock dependencies. Two internal PLLs + an integrated DisplayPort reference clock can support (1) two legacy display outputs + four DisplayPort outputs, (2) one legacy display output + five DisplayPort outputs or (3) six DisplayPort outputs. Legacy display = VGA, DVI, HDMI™ or LVDS. Microsoft® Windows® 7, Windows Vista®, or Linux® is required in order to support more than 2 displays. SLS ("Single Large Surface") functionality requires an identical display resolution on all configured displays.
- 2 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.
- 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. Blu-ray 3D discs, 3D middleware, games) are required for the enablement of stereoscopic 3D.
- 4 System configuration: 1280x1024, E4690: 600e/700m, 512MB GDDR3, E6460: 600e/800m, 512MB GDDR5, E6760: 600e/800m, 1 GB GDDR5, AMD: AMD Athlon™ II X4 620 @ 2.6GHz, MSI Gigabyte GA-MA770T-UD3P, Corsair XMS3 4GB (2x2GB) 1333MHz 9-9-9-24 (TW3X4G1333C9A G), Windows® 7 64-bit Ultimate
- 5 OpenCL™ certification expected.
- 6 Part availability is planned for 5 years from date of announcement and subject to change without notice.
- 7 Test conditions: 3DMark™03, 600 MHz engine / 800 MHz memory clocks, 2x DVI+DisplayPort 5760x1200, 32 bpp, PCI Express® x16 5.0 GT/s, ambient temp.
- 8 Test conditions: 3DMark™03, 600 MHz engine / 800 MHz memory clocks, 1x DisplayPort 1920x1200, 32 bpp, PCI Express® x16 5.0 GT/s, ambient temp.
- 9 Not all display interfaces available at same time. Maximum resolution dependent on link bit-rate and available memory bandwidth. AMD Embedded Catalyst™ Software driver version 8.81 or higher required to support AMD Eyefinity multi-display technology. AMD Eyefinity multi-display technology has certain restrictions on supported display interfaces.
- 10 Some features not supported (e.g., AMD Eyefinity, DirectX® 11, etc.)

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Contact your local AMD distributor for ordering information. OPN: 100-CG2266

