

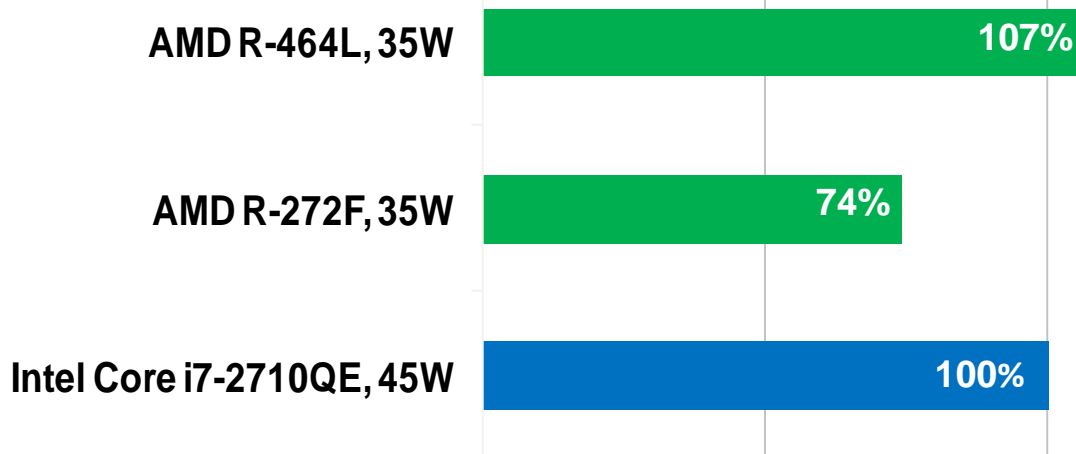
AMD EMBEDDED R-SERIES PLATFORM

AMD R-Series APUs vs. Intel Core i7 Processor for Embedded Applications



Satisfy the performance demands of your embedded applications with the AMD Embedded R-Series platform. The AMD R-Series APU, with new high performance x86 CPU cores and an advanced discrete class GPU in a single chip, excels at CPU graphics, parallel processing, and 3D intensive workloads. Let the outstanding performance and energy efficiency of an AMD R-Series APU provide the foundation for your next embedded design!

Outstanding Overall Graphics/3D and CPU Performance



Percentages in this chart were derived by normalizing the geometric mean of overall benchmark scores to the Intel Core i7-2710QE processor. Benchmarks and system configurations used are listed on the reverse side of this flyer.

Features and Benefits

- ❑ Many embedded designs need high-end CPU, graphics, and 3D performance. The AMD R-Series APUs excel in these designs, especially considering their low 35 Watt TDP vs. the 45 Watt TDP of the Core i7-2710QE.
- ❑ The AMD R-Series APU combines scalar processing on the CPU with parallel processing on the GPU and high bandwidth access to memory, all in a single embedded device.
- ❑ Advanced graphics processing with support for DirectX® 11 and OpenGL 4.0 in an integrated device provides the foundation to build the designs of tomorrow, today.
- ❑ Parallel processing support through OpenCL™ and DirectCompute enables the AMD R-Series GPU to be programmed to assist in tasks normally reserved for the CPU.
- ❑ Support for AMD DAS 1.0 enables remote management, virtualization and security for embedded applications.
- ❑ Ideal for embedded applications such as Digital Signage, Integrated Set-Top-Box (xSTB), IP-TV, Information Kiosk, Point-of-Sale, and Casino Gaming.



System Configurations

AMD Embedded R-Series APU System Configuration

Operating System 1

Name: Windows® 7 Ultimate Edition
Version: 6.1
Build: 7600
DirectX® Version: DirectX® 11.0

Operating System 2

Name: Ubuntu Linux®
Version: 11.10

Processor

AMD R-464L and R-272F APU

Hardware

Motherboard: AMD “Pumori” development board
BIOS Info: Insyde H20 RPM1000D
Is BIOS Publicly Available: No
North Bridge: Integrated on AMD R-Series APU
South Bridge: AMD A75 Controller Hub

Memory

Manufacturer and Type: Elpida EBJ21UD8BFU0-GN-F
Quantity & Size each: Qty (2) 2GB SO-DIMM
Total Memory Size: 4GB

Hard Drive

x1
Make and Model: Hitachi HTS725016A9A364
Hard Drive Size: 160GB
Transfer Mode: SATA 3.0Gbps, NTFS

Video Card

Graphics Adapter: Integrated on AMD R-Series APU

Video Driver

AMD 8.980.0.0

Other

-Actual memory speed was 800MHz (DDR3-1600) on the R-464L and 667MHz (DDR3-1333) on the R-272F

Intel Core i7 Processor System Configuration

Operating System 1

Name: Windows® 7 Ultimate Edition
Version: 6.1
Build: 7600
DirectX® Version: DirectX® 11.0

Operating System 2

Name: Ubuntu Linux®
Version: 11.10

Processor

Intel Core i7-2710QE

Hardware

Motherboard: iBase MI956F
BIOS Info: AMI 2.10.1208
Is BIOS Publicly Available: Yes
North Bridge: Integrated on Intel Core ix (Sandy Bridge)
South Bridge: Intel QM67 PCH

Memory

Manufacturer and Type: Elpida EBJ21UD8BFU0-GN-F
Quantity & Size each: Qty (2) 2GB SO-DIMM
Total Memory Size: 4GB

Hard Drive

x1
Make and Model: Hitachi HTS725016A9A364
Hard Drive Size: 160GB
Transfer Mode: SATA 3.0Gbps, NTFS

Video Card

Graphics Adapter: Integrated on Intel Core ix (Sandy Bridge)

Video Driver

Intel 8.15.10.2361

Other

-Actual memory speed was 667MHz (DDR3-1333)



Performance Benchmark Suite

- ❑ 3DMark® 06 v1.2.0
- ❑ 3DMark® Vantage v1.1.0
- ❑ PCMark® 7 v1.0.4
- ❑ EEMBC CoreMark v1.0
- ❑ POV-Ray 3.7 Beta 23

