



AMD Product Brief:

AMD Opteron™ A1100 SOC Series

64-bit ARM®-based AMD Opteron processors meet demanding performance requirements, provide energy efficient solutions and enable cost savings for scale-out cloud datacenter, storage and networking infrastructure.

PRODUCT OVERVIEW

AMD Opteron A1100 Series SOC's leverage AMD's industry-leading expertise in designing enterprise-class server products and build on the rapidly developing ARM software and development ecosystem to establish a new category of high performance, energy efficient processors for cloud computing, storage and networking infrastructure. Enabling datacenter and network operators to leverage highly integrated I/O, energy efficiency and superior compute density, AMD Opteron A1100 series SOC's provide unprecedented agility, choice, and system level integration helping lower TCO.

CLOUD STORAGE INFRASTRUCTURE

Low power AMD Opteron A1100 SOC's are well suited for tiered storage applications in cloud datacenters. Enabling the low-latency retrieval of massive data sets – which continue to grow exponentially – AMD Opteron A1100 SOC's provide the processing performance and I/O connectivity needed to support most commercial cloud storage requirements, making them an attractively priced and energy efficient solution.

NETWORKING AND COMMUNICATIONS

AMD Opteron A1100 SOC's can enable service providers to dramatically simplify infrastructure deployment and management via network function virtualization (NFV). AMD Opteron A1100 processors help eliminate dependencies on customized software stacks and are designed to maximize virtual function performance with support for VFIO, and enhances network bandwidth performance with dual integrated 10GE NICs while enabling reduced complexity and cost.

KEY BENEFITS

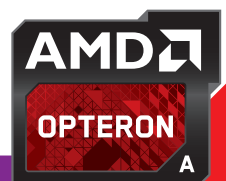
Inspiring Innovation in the Data Center – ARM processors in the data center creates choice. Choice leads to new thinking, new options and enables optimizations which can ultimately lead to lower cost and complexity.

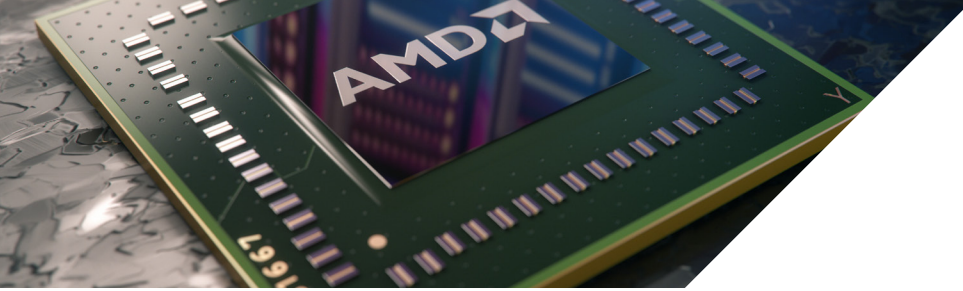
Enabling Scale-Out Performance, Connectivity and Power Efficiency for Lower TCO – By packaging the latest ARM Cortex®-A57 cores with high-speed network and storage connectivity with outstanding energy efficiency, the AMD Opteron A1100 Series Processor Family enables a balanced Total Cost of Ownership for storage, web and networking workloads.

Accelerating Time-to-Deployment of Enterprise-class 64-bit ARM – AMD is collaborating with ARM to develop a broader ecosystem for Data Center environments, helping reduce the cost and risk of introducing new technologies such as 64-bit ARM processors. A broad ecosystem coupled with choice encourages accelerated time to utilization.

KEY FEATURES

Proven ARM-based Architecture – Based on the 64-bit ARM platform, AMD Opteron A1100 SOC's provide up to eight high-performance Cortex-A57 cores, with 4MB shared L2 cache and 8MB L3 cache with full cache coherency.





Flexible, High Performance Memory – AMD Opteron A1100 SOC provide two 64-bit DDR3 or DDR4 memory channels with error correction code (ECC), and support for up to 128GB total system memory.

Highly Integrated I/O – AMD Opteron A1100 SOC integrate two 10GbE KR, fourteen SATA 3 (6Gb/s) ports, and 8 lanes of PCI Express® Gen 3, all in a 27mm x 27mm BGA package.

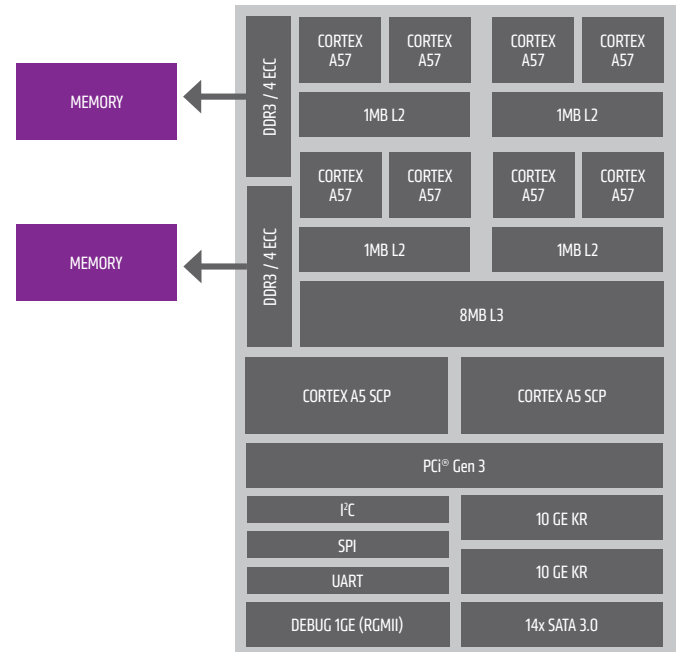
Low Power Enterprise Solution – Providing exceptional performance-per-watt, AMD Opteron A1100 SOC support thermal design power (TDP) profiles as low as 25W.

Robust Open Software Support – AMD Opteron A1100 SOC are supported by a comprehensive, open software stack spanning OS, virtualization/hypervisor, database and programming languages.

Software support includes:

- OS: Red Hat, SUSE, OpenSUSE, Fedora, ENEA Linux®, and CentOS
- Hypervisor: Xen and KVM
- Test/Validation: Linaro LAVA
- JAVA: OpenJDK and Oracle JDK
- Compiler: GCC and LLVM
- Scripting Language: PHP, Perl, Python and Ruby

AMD OPTERON A1100 SOC SKU SPECIFICATIONS



AMD OPTERON A1100 SOC SKU SPECIFICATIONS

Model Number	OPN	TDP	Core Count	L2 Cache	L3 Cache	CPU Clock GHz	Max DDR3 Rate	Max DDR4 Rate	Temp Range (Tidle Max)	ECC
A1170	0A1170AQD8NAD	32W	8	4MB	8MB	2.0	1600	1866	0C – 80C	Yes
A1150	0A1150AQD8NAD	32W	8	4MB	8MB	1.7	1600	1866	0C – 80C	Yes
A1120	0A1120ARD4NAD	25W	4	2MB	8MB	1.7	1600	1866	0C – 80C	Yes

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