5 REASONS AMD EPYC™ 8004 SERIES PROCESSORS ARE THE RIGHT CHOICE FOR CLOUD SERVICES, INTELLIGENT EDGE AND TELCO

AT A GLANCE

Technologies such as AI/ML, 5G, autonomous systems and IoT are quickly innovating the ways we live and work. The opportunities for differentiation and competitive advantage are real, but also present the challenges of rising IT costs, latency, limited availability of large data center capacity, power consumption pressures and security and privacy concerns. Edge computing can help you accelerate your adoption of innovative technology, but space, power, location, device size and temperature control constraints can become roadblocks along the way.

With their high-efficiency "Zen 4c" core architecture and low thermal design power (TDP) ranges, AMD EPYC™ 8004 processors offer optimal performance, energy efficiency and built-in security capabilities in an optimized, single-socket package, ideal for edge server deployments and specialized form factors for manufacturing, healthcare, retail, telco, content delivery and more.

1

ENABLE HIGH PRODUCTIVITY

AMD EPYC 8004 processors open new opportunities for power-constrained data centers and edge deployments outside the data center. These processors use the new SP6 socket and feature 8 to 64 SMT-capable (Simultaneous Multithreading), energy-efficient "Zen 4c" processor cores, DDR5 memory channels and PCIe® Gen5 I/O lanes enabling impressive performance and exceptional performance per watt in cost-effective system design.

2

MAKE FAST, INFORMED DECISIONS AND BUILD A RAPIDLY RESPONSIVE BUSINESS

AMD EPYC 8004 processors are optimized to meet market needs for intelligent edge and telecommunications, helping you unlock new experiences and services using IoT, 5G, AI/ML, autonomous systems and content delivery by placing and securing data, compute and storage closer to points of creation and consumption.

3

MODERNIZE YOUR INFRASTRUCTURE SIMPLY WITH COST-EFFECTIVE, INNOVATIVE DESIGNS

Choose AMD EPYC 8004 processors to update your infrastructure and manage the complexity of integrating interfaces and platforms simply, with broad x86 compatibility. These compact CPUs are optimal for deployments where the size, ruggedness or adaptability of the device is critical. Turn to AMD EPYC 8004 processors for a reliable foundation and system flexibility for modern hyperthreaded and scaled-out workloads in the data center or at the edge.

4

CREATE ENERGY-EFFICIENT SOLUTIONS WITHOUT WHOLESALE SOFTWARE CHANGES

Discover new ways to optimize core usage and address your sustainability and corporate responsibility goals, without having to rewrite your software. The low-power design and broad operating temperature ranges of AMD EPYC 8004 processors help systems operate at room temperature and run quietly thanks to the need for fewer high-speed cooling fans. Their x86-compatible, low-profile operation can help free up overhead for system resilience and service reliability investments.

5

CONFIDENTLY NAVIGATE TODAY'S BUSINESS RISKS, COMPLEXITIES AND REQUIREMENTS

Compute with confidence, knowing that your business is targeting and managing today's newest challenges with AMD Infinity Guard[1] and AMD commitments to compliance, supply chain resilience and firm long-term processor roadmaps.

Continue reading for more technical detail

TECHNICAL DEEP DIVE

#1 ENABLE HIGH PRODUCTIVITY

- Up to 64 SMT-capable (Simultaneous Multithreading), energy-efficient "Zen 4c" processor cores, bring high compute density to intelligent edge and telco deployments.
- 6 DDR5 memory channels and 96 PCIe® Gen 5 lanes per CPU streamline application data processing and delivers fast time to results.
- Get energy-efficient performance in space and power-constrained environments. Deliver 44% better integer performance per system watt when comparing single-socket servers using a 64-core EPYC 8534PN CPU vs. a 52-core Intel® Xeon® Platinum 8471N CPU.[SP6-003]
- Speed up IoT edge gateways. On the Apache® IoTDB benchmark, gain ~23% more performance and up ~1.8x the performance per system watt when comparing single-socket 8-core servers with an AMD EPYC 8024P CPU to an Intel® Xeon®Bronze 3408U CPU.[SP6-005]

#2 MAKE FAST, INFORMED DECISIONS AND BUILD A RAPIDLY RESPONSIVE BUSINESS

- AMD EPYC 8004 series processors extend the benefits of the "Zen 4c" processor core to deployments that seek strong performance and analytics, yet were previously constrained by significant requirements for efficient, dense form factors, limited available power and quieter operations.
- Configure your platform to address your most demanding edge, telco, storage or SMB applications without the need for accelerators and without burdensome tradeoffs.
- Propel common AI/ML workloads. Choose 1P servers using 64-core AMD EPYC 8534PN CPUs over 52-core Intel® Xeon® Platinum 8741N CPUs to deliver up to 2.6x the performance/system W/system $ (1.5x avg) running five common AI/ML workloads.[SP6-006]

#3 MODERNIZE YOUR INFRASTRUCTURE SIMPLY WITH COST-EFFECTIVE, INNOVATIVE DESIGNS

- AMD EPYC 8004 processors are ideal for use in form factor server designs with shallow depths and small footprints, great for innovative, high-density designs that allow deployment of significant compute or storage capacity into sites with restricted amounts of available space or power.
- With configurable processor TDP as low as 70W, create low power, air-cooled systems that run quietly enough to be deployed into non-traditional data center environments such as branch offices or retail locations.
- Enable ruggedized and high operating temperature range solutions that can be deployed in sites that can't provide the steady, controlled environments of a data center or office—such as outdoor deployments in smart city or physically constrained communications network sites.

#4 CREATE ENERGY-EFFICIENT SOLUTIONS WITHOUT WHOLESALE SOFTWARE CHANGES

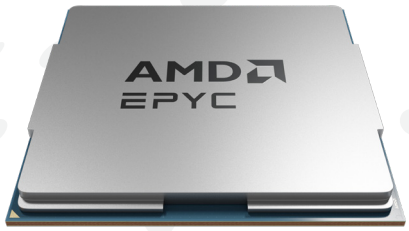
- The single socket design with streamlined memory and I/O features helps servers based on the AMD EPYC 8004 processor achieve compelling system cost/performance metrics, and their x86-compatibility means you can handle a wide range of workloads to deliver the performance you need, both in your data center and now in challenging edge environments.
- Get exceptionally efficient capacity. Comparing single-socket servers, choose a 64-core AMD EPYC 8534P CPU over a 52-core Intel® Xeon® Platinum 8471N CPU to deploy 18 more servers at 100% target load in a 8kW rack, and deliver 2.1x the total server-side Java® operations throughput rack performance.[SP6-007]
- Deploy more VDI desktop sessions at the edge: Deploy ~1.3x the Login VSI desktop sessions/system W/system $ (with a 'very good QoS') when choosing single-socket servers with 32-core AMD EPYC 8324PN CPUs over 32-core Intel® Xeon® Gold 6421N CPUs.[SP6-010]
- Efficiently deliver more Telco Mbps throughput: with 1P servers powered by 8-core AMD EPYC 8024PN CPUs gain 2.1x the performance/system W/system $ vs. 1P servers powered by 8-core Intel® Xeon® Bronze 3408U CPUs running select telco workloads.[SP6-013]

Continue reading for more technical detail

#5 CONFIDENTLY NAVIGATE TODAY'S BUSINESS RISKS, COMPLEXITIES AND REQUIREMENTS

- Building on the state-of-the-art AMD Infinity Guard[1] security feature set, 4th Gen AMD EPYC processors add improved features such as 256b AES-XTS encryption and SEV-SNP for CXL™ type 3 memory expansion to help make strong security features even stronger.
- Leverage a growing ecosystem of Confidential Computing, addressing the special security concerns about migrating sensitive applications and data to the cloud.
- Compliance and corporate responsibility are refreshingly straightforward. AMD partners with suppliers to advance human rights, drive environmental sustainability goals and support supply chain resilience.[2]

AMD EPYC 8004 SERIES PROCESSORS: PURPOSE-BUILT, ENERGY-EFFICIENT CPUS FOR CLOUD SERVICE, INTELLIGENT EDGE AND TELCO COMPUTING



AMD EPYC 8004 PROCESSORS

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1 GD-183. AMD Infinity Guard features vary by AMD EPYC™ Processor generations. Infinity Guard security features must be enabled by server OEMs and/or Cloud Service Providers to operate. Check with your OEM or provider to confirm support of these features. Learn more about Infinity Guard at https://www.amd.com/en/technologies/infinity-guard.

2 See amd.com/en/corporate-responsibility/supply-chain-responsibility.

For details on the claims used in this document, visit amd.com/en/claims/epyc.