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No matter what the workload demands are, the 4th Gen AMD EPYC™ processor portfolio offers a solution to advance your business. With exceptional energy efficiency, performance, and TCO, 4th Gen AMD EPYC™ processors are purpose-built to address the modern data center needs of enterprises.

INNOVATIVE CHIPLET ARCHITECTURE

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High Performance

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Leadership performance for data center computing

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SP5-010D: SPECrate®2017_int_base comparison based on published scores from www.spec.org as of 08/22/2023. Comparison of published 2P AMD EPYC 9654 (9800 SPECrate®2017_int_base, 720 Total TDP W; $29,610 Intel Xeu. 192 Total Cores, 2.500 PerfV/W, 0.076 PerfV/CPU). http://spec.org/cpu2017/results/res2023q2/cpu2017-20230404-36017.html is 1.68x the performance of published 2P Intel Xeon Platinum 8480H (5000 SPECrate®2017_int_base, 700 Total TDP W, $34,000 total 1ku, 120 Total Cores, 1.429 PerfV/W, 0.0213 PerfV/CPU), http://spec.org/cpu2017/results/res2023q1/cpu2017-20230130-34562.html (at 1.75x the performance/W) (at 2.10x the performance/CPU). Published 2P AMD EPYC 7763 (1561 SPECrate®2017_int_base, 560 Total TDP W, $9,780 total 1ku, 128 Total Cores, 1.598 PerfV/W, 0.0195 PerfV/CPU). http://spec.org/cpu2017/results/res2021q4/cpu2017-20211025-30148.html is shown for reference at 0.86x the performance (at 1.68x the performance/W) (at 1.86x the performance/CPU). AMD 1ku pricing and Intel 1ku pricing.com specification and pricing as of 6/12/23. SPEC®, SPEC CPU®, and SPECrate® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information.

SP5-072A: As of 6/13/2023, a 4th Gen EPYC 9754 powered server has highest overall scores in key industry-recognized energy efficiency benchmarks SPECpower_ssj2008, SPECrate®2017_int_energy_base, SPECrate®2017_fp_energy_base and VMmark® Server Power Performance.

EPYC9005-B28A: 1-node, 2P AMD EPYC 9754 scores 33000 overall ssj_ops/W QIU, Windows Server 2022 Datacenter: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230523-01264.html)

EPYC9005-B29A: 1-node, 2P AMD EPYC 9754 scores 28598 overall ssj_ops/W QIU, SUSE Linux Enterprise Server 15 SP4: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230521-01264.html)

EPYC9005-B30A: 1-node, 2P AMD EPYC 9754 scores 33300 overall ssj_ops/W QIU, Windows Server 2022 Datacenter: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230523-01264.html)

EPYC9005-B31A: 1-node, 1P AMD EPYC 9754 scores 27270 overall ssj_ops/W DIU, SUSE Linux Enterprise Server 15 SP4: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230521-01256.html)

EPYC9005-B32A: 1-node, 1P AMD EPYC 9754 scores 29124 overall ssj_ops/W QIU, SUSE Linux Enterprise Server 15 SP4: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230521-01255.html)
EPYC9005-B36A

EPYC9005-B37A: 1-node, 1P AMD EPYC 9754 scores 33012 overall ssj_ops/W DIU, SUSE Linux Enterprise Server 15 SP4: https://www.spec.org/power_ssj2008/results/res2023q2/power_ssj2008-20230523-01263.html)

EPYC9005-B83A: 2P AMD EPYC 9754 (2110 SPECrate®2017_fp_energy_base/1222 SPECrate®2017_fp_base, 192 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36877.html)

EPYC9005-B84A: 2P AMD EPYC 9754 (2110 SPECrate®2017_fp_energy_base/1222 SPECrate®2017_fp_base, 192 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36877.html) EPYC9005-B84A

EPYC9005-B86A: 2P AMD EPYC 9754 (2180 SPECrate®2017_fp_energy_peak/2110 SPECrate®2017_fp_energy_base/1990 SPECrate®2017_fp_peak/1220 SPECrate®2017_fp_base, 192 total cores. https://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36877.html)

EPYC9005-B87A: 2P AMD EPYC 9754 (2180 SPECrate®2017_fp_energy_peak/2110 SPECrate®2017_fp_energy_base/1990 SPECrate®2017_fp_peak/1220 SPECrate®2017_fp_base, 192 total cores. https://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36877.html)

EPYC9005-B88A: 2P AMD EPYC 9754 (2220 SPECrate®2017_int_energy_base/1500 SPECrate®2017_int_base, 256 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36749.html)

EPYC9005-B89A: 2P AMD EPYC 9754 (2290 SPECrate®2017_int_energy_base/1500 SPECrate®2017_int_base, 256 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36749.html)

EPYC9005-B90A: 2P AMD EPYC 9754 (2440 SPECrate®2017_int_energy_peak/2290 SPECrate®2017_int_energy_base/1630 SPECrate®2017_int_peak/1500 SPECrate®2017_int_base, 256 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36749.html)

EPYC9005-B91A: 2P AMD EPYC 9754 (2440 SPECrate®2017_int_energy_peak/2290 SPECrate®2017_int_energy_base/1630 SPECrate®2017_int_peak/1500 SPECrate®2017_int_base, 256 total cores. http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36749.html)

EPYC9005-B70A: 2P AMD EPYC 9754 (766 SPECspeed®2017_fp_energy_base/360 SPECspeed®2017_fp_base, 256 total cores, http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36752.html)

EPYC9005-B71A: 2P AMD EPYC 9754 (766 SPECspeed®2017_fp_energy_base/360 SPECspeed®2017_fp_base, 256 total cores, http://www.spec.org/cpu2017/results/res2023q2/cpu2017-20230522-36752.html)

EPYC9005-B50A: 2-node, 2P AMD EPYC 9754, 256 total cores, 13,930 PPKW @ 48 tiles on VMmark Server Power Performance. Source: https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/vmmark/2023-08-13-Dell-PowerEdge-R7625-series4PPW.pdf

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The EPYC 9684X CPU is the world's highest performance x86 server CPU for technical computing, comparison based on SPEC.org publications as of 5/31/2023 measuring the score, rating in jobs/day for each of SPECrate®2017_fp_base (GPS-OOM). Altair AcuSolve https://www.amd.com/en/processors/server-tech-docs/amd-epyc-9004x-pb-altair-acusolve.pdf). Ansys Fluent (https://www.amd.com/en/processors/server-tech-docs/amd-epyc-9004x-pb-ansys-fluent.pdf). OpenFOAM (https://www.amd.com/en/processors/server-tech-docs/amd-epyc-9004x-pb-openfoam.pdf). Ansys LS-Dyna (https://www.amd.com/en/processors/server-tech-docs/amd-epyc-9004x-pb-ansys-ls-dyna.pdf), and Altair Radioss (https://www.amd.com/en/processors/server-tech-docs/amd-epyc-9004x-pb-altair-radioss.pdf) application test case simulations average speedup on 2P servers running 96-core EPYC 9684X vs top 2P performance general-purpose 56-core Intel Xeon Platinum 8480+ or top-of-stack 60-core Xeon 8490H based server for technical computing performance leadership. "Technical Computing" or "Technical Computing Workloads" as defined by AMD can include: electronic design automation, computational fluid dynamics, finite element analysis, seismic tomography, weather forecasting, quantum mechanics, climate research, molecular modeling, or similar workloads. Results may vary based on factors including silicon version, hardware and software configuration and driver versions. SPEC®, SPECrate® and SPEC CPU® are registered trademarks of the Standard Performance Evaluation Corporation. See www.spec.org for more information.

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