TD SYNNEX

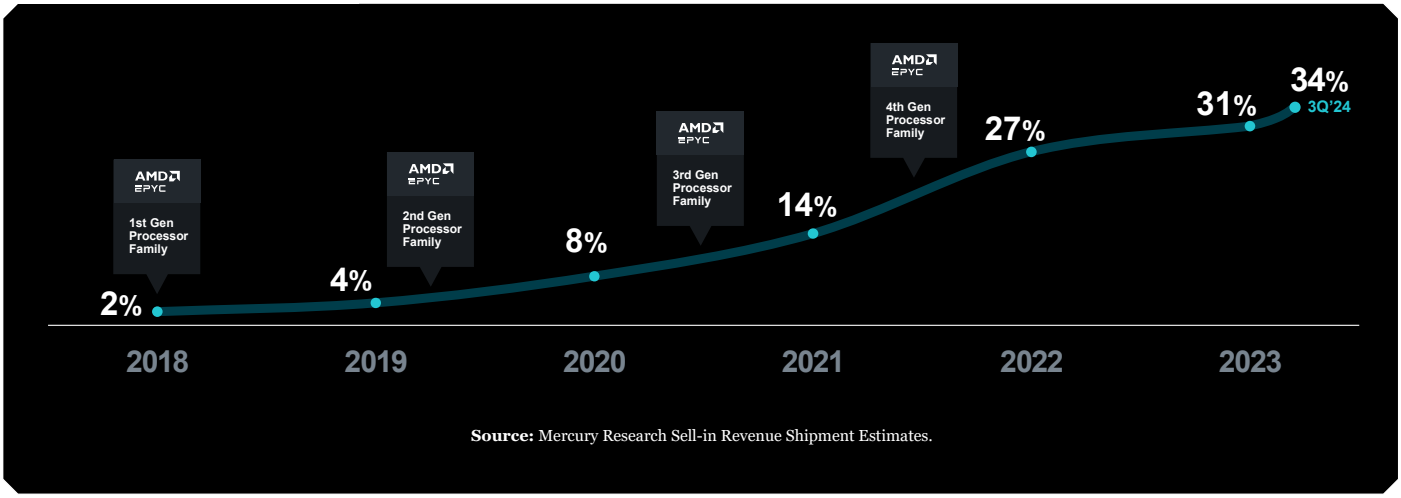
AMD EPYC

Unleashing AI performance: why AMD leads the way

AMD EPYC™ IS TRUSTED TO POWER ONE-THIRD OF THE WORLD'S SERVERS.

See for yourself with our AMD demo Processors Tools >

AMD servers market penetration



Source: Mercury Research Sell-in Revenue Shipment Estimates.

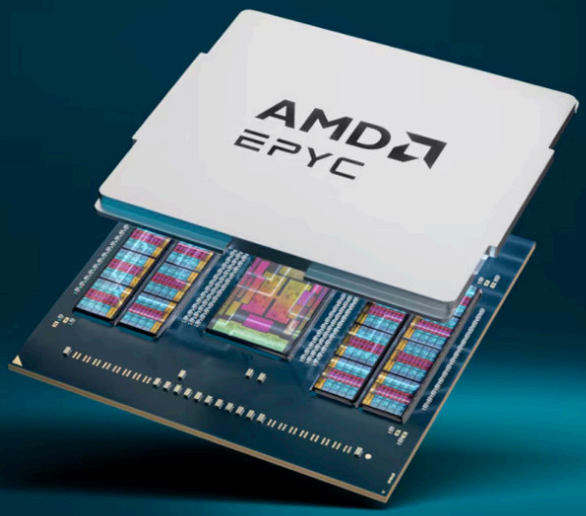
Used by major players

The largest and most discerning hyperscale data centre customers	Broad range of platforms from all major OEMs and support from 150+ leading ODMs
Alibaba Cloud, AWS, Google Cloud, IBM Cloud, Meta, Microsoft Azure, Oracle, Tencent Cloud.	ASUS, Hewlett Packard Enterprise, Dell, Lenovo, Cisco, Supermicro, Inventec, Gigabyte, MSI, Tyan.

Why is AMD winning share?

AMD delivers:		
• unparalleled performance	• performance-per-watt	• single-socket strategy
This helps customers:		
• lower development time • make decisions faster • consolidate servers • maximise software license investment	• reduce power consumption • reduce data centre footprint • maximise performance, VMs and users per rack • achieve sustainability goals	• increase power efficiency for non-CPU-bound workloads • lower platform costs • better utilise resources

TD SYNNEX



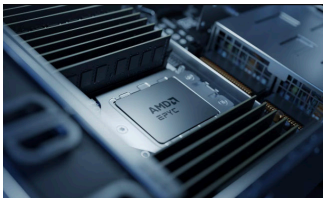
AMD EPYC

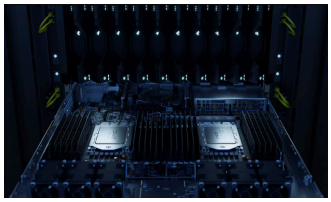
Server market opportunities

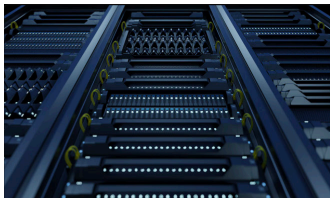
	Full Enterprise Features				Essential Enterprise Features	
Use Cases	AI	Cloud, HPC & Enterprise IT	Entry Enterprise & SMB	Edge Compute & Telco	Dedicated Hosting	Small Business
Product Category	Performance 2P & 1P	Performance 2P & 1P	Optimised 1P		Entry 1P	
Customer Focus	Performance, AI-enabled data centre	Core Density, Performance, Scalability, TCO	Perf. /W, Form Factor		Best Perf. /$ & Perf. /W	Lowest Acquisition Price
AMD EPYC™ CPU	9005 Series (Zen 5)	9004 Series (Zen 4) & 7003 Series (Zen 3)	8004 Series (Zen 4)		4004 Series (Zen 4)	

AMD portfolio at a glance

		Up to # of CPU Cores	Up to # of Threads	Up to Max. Boost Clock	Up to L3 Cache	CPU Socket	Socket Count	PCI Express Version	System Memory Type	Up to Memory Channels
EPYC 7003 Series	Milan	64	128	4.1 GHz	256 MB	SP3	1P / 2P	PCIe 4.0 x128	DDR4	8
	Milan-X	64	128	3.8 GHz	768 MB	SP3	1P / 2P	PCIe 4.0 x128	DDR4	8
EPYC 9004 Series	Genoa	112	224	4.4 GHz	384 MB	SP5	1P / 2P	PCIe 5.0 x128	DDR5	12
	Genoa-X	96	192	4.2 GHz	1152 MB	SP5	1P / 2P	PCIe 5.0 x128	DDR5	12
	Bergamo	128	256	3.1 GHz	256 MB	SP5	1P / 2P	PCIe 5.0 x128	DDR5	12
EPYC 8004 Series	Siena	64	128	3.1 GHz	128 MB	SP6	1P	PCIe 5.0 x96	DDR5	6
EPYC 4004 Series	Raphael	16	32	5.7 GHz	128 MB	AM5	1P	PCIe 5.0 x28	DDR5	2
EPYC 9005 Series	Turin	160	320	5.0 GHz	512 MB	SP5	1P / 2P	PCIe 5.0 x128	DDR5	12
	Turin Dense	192	384	3.7 GHz	384 MB	SP5	1P / 2P	PCIe 5.0 x128	DDR5	12







TD SYNNEX

AMD EPYC

7003 MILAN
AMD EPYC™ 7003 SERIES

Workloads: General purpose.

Leveraging flexible configurations for memory-intensive workloads allows customers to choose the right number of cores, frequencies and cache sizes. Strong security capabilities and high I/O capacity are included without additional cost.

- Up to 64 cores and 128 threads
- Up to 4.1 GHz
- Up to 128 PCIe 4.0 lanes
- Up to 4TB DDR4 memory
- 16 DIMM slots
- 256MB L3 cache/socket
- SP3 Platform (compatible with 7001 Naples and 7002 Rome)

7003X MILAN-X
AMD EPYC™ 7003X SERIES with 30 V-Cache™

Workloads: Technical computing.

Complex predictive workloads of all kinds. x86 technical workloads just work. Avoid architecture updates by using existing software and realise immediate performance benefits.

- Up to 64 cores and 128 threads
- Up to 3.8 GHz
- Up to 128 PCIe 4.0 lanes
- Up to 4TB DDR4 memory
- 16 DIMM slots
- 768MB L3 cache/socket
- SP3 Platform (compatible with 7001 Naples and 7002 Rome)

9004 GENOA
AMD EPYC™ 9004 SERIES

Leading performance per core.

Workloads: Broad spectrum.

Leadership performance for data centre computing. Speeding up time to value and optimising return on IT investments in the data centre and cloud. Supporting the continuous improvement of performance and efficiency across the application landscape.

- Up to 96 cores and 192 threads
- Up to 4.4 GHz
- AVX-512 support
- Up to 128 PCIe 5.0 lanes
- 12 DDR5 memory channels
- Up to 256MB L3 cache
- Up to 64 lanes CXL™ connectivity
- SP5 Platform (compatible with 9004 Genoa)

9004X GENOA-X
AMD EPYC™ 9004X SERIES with 3D V-Cache™

Highest cache.

Workloads: Technical computing for factor product design.

Accelerate productivity for EDA, CFD, FEA, WFA and other complex technical workloads.

- Up to 96 cores & 192 threads
- Up to 4.2 GHz
- AVX-512 support
- Up to 128 PCIe 5.0 lanes
- 12 DDR5 memory channels
- Up to 1152MB L3 cache/socket
- 64 lanes CXL™ 1.1+
- SP5 Platform (compatible with 9004 Genoa)

97X4 BERGAMO
AMD EPYC™ 97X4 SERIES

Highest thread density.

Workloads: Cloud native computing at the largest stage.

Dense multi-tenant, high-VM-count, highly containerised, and cloud-native workloads. High-throughput, high-thread-density applications, including Al and ML.

- Up to 128 cores & 256 threads
- Up to 3.1 GHz
- AVX-512 support
- Up to 128 PCIe 5.0 lanes
- 12 DDR5 memory channels
- Up to 256MB L3 cache
- 64 lanes CXL™ 1.1+
- SP5 Platform (compatible with 9004 Genoa)

8004 SIENA
AMD EPYC™ 8004 SERIES

Workloads: Low power form factors.

Optimised for intelligent edge, telco and cloud. Lower core count offerings with TDP ranges as low as 80W. Strong performance and energy efficiency in an optimised single-socket package. Suitable for data centres and diverse edge server deployments for manufacturing, healthcare, retail, telco and more.

- Up to 64 cores & 128 threads
- Up to 3.1 GHz
- AVX-512 support
- Up to 96 PCIe 5.0 lanes
- Up to 1.152TB DDR5 memory
- 48 lanes CXL™ 1.1+
- SP6 Platform

4004 RAPHAEL
AMD EPYC™ 4004 SERIES

Workloads: Small business workloads.

A perfect match for small business and dedicated hosting. For small business, entry-level server workloads can be addressed with smaller, cost-efficient infrastructure. Extend the established “Zen 4” core architecture into a range of entry level system designs.

- Up to 16 cores & 32 threads
- Up to 5.7 GHz
- Up to 64MB L3 cache
- 28 PCIe 5.0 lanes
- 2 DDR5 memory channels
- Up to 64 lanes CXL™ connectivity
- AM5 Platform

9005 TURIN
AMD EPYC™ 9005 SERIES

Workloads: AI and machine learning.

Advancements in the AMD EPYC™ 9005 series processor family are enabled by the breakthrough high performance, highly efficient “Zen 5” processor core architecture and advanced microprocessor process technologies to better meet the needs of the modern Al-enabled data centre.

- Up to 192 cores & 384 threads
- Up to 5GHz
- AVX-512 Full 512b Data Path
- Up to 160 PCIe 5.0 lanes*
- Trusted IO
- Up to 384MB L3 cache
- CXL™ 2.0 (types 1, 2, 3**)
- SP5 Platform (compatible with 9004 Genoa)

* Up to 160 lanes in 2-socket configurations. ** CXL™ type 1 and 2 devices and PCIe link encryption support dependent upon ecosystem readiness; type 2 POC only.

Go to AMD demo Processors Tools >