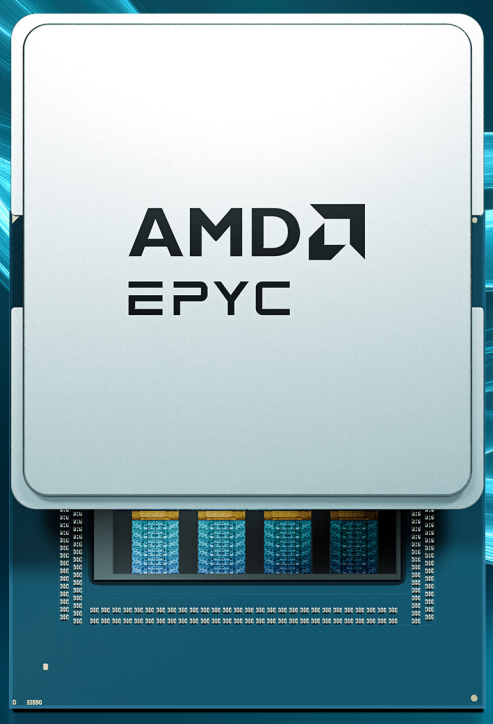
AMD EPYC

5 REASONS TO USE MRDIMM GEN2 ON AMD EPYC™ 9006 SERVER CPUs



AMD EPYC™ 9006 Server CPUs are the first to market with support for JEDEC-standard MRDIMM-12800 Gen2, increasing memory bandwidth in modern, high-core-count deployments.[1]

1 DOUBLES PER-CHANNEL MEMORY BANDWIDTH

MRDIMM-12800 multiplexes two ranks of DRAM through on-module data buffers to double the effective channel rate.[2]

Delivering 12,800 MT/s
to the host versus 6,400 MT/s on baseline DDR5

With up to 16 channels supporting 1.6 TB/s
of memory bandwidth per socket

2 BACKED BY A STANDARDS-BASED MULTI-VENDOR ECOSYSTEM

MRDIMM's Multiplexed-rank Data Buffer and Registering Clock Driver logic are published JEDEC standards adopted by leading memory providers

Broader Supply Assurance

Cross-Vendor Interoperability

3 HIGH-CORE-COUNT CPUs UTILIZED

More cores has historically meant less memory bandwidth per core. MRDIMM-12800 Gen2 counters that tradeoff, delivering roughly 6.4 GB/s per core even at 256 cores per socket, helping keep every core utilized.

Up to 256 cores
per socket with higher memory bandwidth

MRDIMM-12800
Gen2 restores bandwidth-per-core to roughly 6.4 GB/s

4 MEMORY BANDWIDTH FOR HIGH PERFORMING AI

Help prevent memory bottlenecks as enterprise AI demands grow

Higher per socket memory bandwidth

Support needs for fast KV cache reads, high tokens per second and concurrent agents

5 COMPATIBLE CONNECTIONS. IMPROVED LATENCY UNDER LOAD.

MRDIMM helps sustain low loaded latency at higher bandwidth demand by running DRAM at roughly half the host data rate, while remaining compatible with RDIMM.

Same Socket and Connectors as DDR5

Can Lower Latency Under Load

AMD EPYC 9006 Series Server CPUs with support for JEDEC-standard MRDIMM-12800 deliver the bandwidth needed to keep more cores productive, accelerate memory-bound workloads, and improve TCO.

1. EPYC-032E: AMD EPYC 9006 Series CPUs are the first CPUs to support JEDEC-standard MRDIMM memory at 12,800 MT/s. AMD EPYC 9006 processors support up to 16 channels of MRDIMM-12800, providing up to 1,638.4 GB/s of theoretical memory bandwidth per socket.

2. 9xx6-103: MRDIMM-12800 = 102.4 GB/s per channel, 2x DDR5-6400 and 1.6x DDR5-8000.

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