

# Run Microsoft SQL Server 2022 on Supermicro Hyper servers using AMD EPYC™ processors

Optimize performance, transaction processing rates, availability, and security with SQL Server running on AMD EPYC™ processor-based servers

Business continuity	Seamless analytics	Industry-leading performance	Proven security leadership
Enhance disaster recovery by reducing the time to recover with accelerated database recovery (ADR) and Azure integration with SQL Server on OEM hardware enabled by AMD EPYC™ processors.	Query data and do analytics quickly from within SQL Server or using external data sources through data virtualization in SQL Server on hardware using AMD EPYC™ processors.	AMD EPYC CPUs feature industry-leading performance at no compromise energy efficiency for your every day data management needs.	Modernize protection and minimize potential attack surfaces with the industry-leading security of SQL Server and AMD Infinity Guard's hardware-based, multilayered security. <sup>1</sup>
<b>Only in SQL Server 2022:</b> Azure integration is made even easier with Azure SQL Managed Instance link.	<b>Only in SQL Server 2022:</b> Azure Synapse Link delivers near real-time insights with a no-ETL connection.	<b>Only in SQL Server 2022:</b> Improvements in intelligent query processing (IQP) and Query Store in SQL Server 2022 continue the tradition of release-over-release performance improvements.	<b>Only in SQL Server 2022:</b> SQL Server 2022 adds SQL Ledger to provide an immutable record of data modifications.

Take your SQL Server workloads running on AMD EPYC™ processor to the next level with Supermicro servers

## Hyper AS -2126HS-TN

Supermicro H14 AS -2126HS-TN with AMD EPYC™ 9004/9005 Processors with up to 24x 384GB DDR5 RDIMM (9TB) with bandwidth up to 6000 MT/S. Supermicro Hyper is the flagship enterprise product line that supports maximum performance CPUs.



<https://www.supermicro.com/en/products/hyper>

Increased performance per watt over competitive servers

Use fewer servers with AMD EPYC CPUs for similar workloads compared to previous generations

Fortify your data center with integrity

<sup>1</sup> GD-183A: AMD Infinity Guard features vary by 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/products/processors/server/epyc/infinity-guard.html>

# AMD EPYC™ 9004 Series Processors



## Faster Time-to-Results

AMD EPYC 9004/9005 Series processors deliver exceptional time-to-results for your business-critical applications.



## Cutting-Edge Security Features

EPYC processors includes AMD Infinity Guard, a comprehensive suite of security features that help keep your data safe



## Energy Efficiency

EPYC processors power the most energy-efficient x86 servers, helping you reduce energy costs and meet corporate sustainability goals



## Faster insights

Capture the full value of your IT investment with EPYC processor-powered servers that improve time-to-value for your applications and help you gain business-critical insights faster.

## 4<sup>th</sup> Gen and 5<sup>th</sup> Gen AMD EPYC™ processors are available on 1P and 2P configurations and feature:

- Up to 192 cores (384 threads) per processor.
- Up to 512 MB L3 cache.
- Up to 12 memory channels per socket that support up to 9 TB of DDR5-6000 memory.
- Support for up to 128 (1P) and up to 160 (2P) PCIe® Gen 5 lanes.
- AVX-512 instruction support for enhanced AI and Machine Learning

4<sup>th</sup> Gen and 5<sup>th</sup> Gen AMD EPYC processors deliver efficient, optimized performance by combining high frequencies, the largest-available L3 cache, up to 128 (1P) or up to 160 (2P) lanes of PCIe® Gen 5 lanes, synchronized fabric and memory clock speeds, and support for up to 9 TB of DDR5-6000 memory.

## SQL Server database sizing recommendations

Size	Size/Users	CPU Cores	SKU	AMD Sizing Recommendation	
<b>S</b>	300GB-1TB <10 users	16	1x 9174F/9175F AS -2115HS-TNR	<ul style="list-style-type: none"> <li>• <b>CPU:</b> 1x 9174F/9175F</li> <li>• <b>Memory:</b> 192GB (12 x 16GB) DDR5</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Disk (REDO):</b> 2 x 1TB NVMe</li> <li>• <b>Disk (DATA):</b> 12 x 1TB NVMe</li> <li>• <b>NIC:</b> 2 x 10G</li> </ul>
<b>M</b>	1TB-3TB <20 users	32	1x 9374F/9375F AS -2115HS-TNR	<ul style="list-style-type: none"> <li>• <b>CPU:</b> 1x 9374F/9375F</li> <li>• <b>Memory:</b> 384GB (12 x 32GB) DDR5</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Disk (REDO):</b> 2 x 3TB NVMe</li> <li>• <b>Disk (DATA):</b> 12 x 3TB NVMe</li> <li>• <b>NIC:</b> 2 x 25G</li> </ul>
<b>L</b>	3TB-10TB <50 users	48	2x 9474F/9475F AS -2126HS-TN	<ul style="list-style-type: none"> <li>• <b>CPU:</b> 2x 9474F/9475F</li> <li>• <b>Memory:</b> 3TB (24 x 128GB) DDR5</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Disk (REDO):</b> 2 x 3TB NVMe</li> <li>• <b>Disk (DATA):</b> 12 x 3TB NVMe (or 24 x)</li> <li>• <b>NIC:</b> 2 x 25G</li> </ul>
<b>XL</b>	10TB-100TB 50+ users	96	2x 9654/9965 AS -2126HS-TN	<ul style="list-style-type: none"> <li>• <b>CPU:</b> 2x 9654/9965</li> <li>• <b>Memory:</b> 3TB (24 x 128GB) DDR5</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Disk (REDO):</b> 2 x 3TB NVMe</li> <li>• <b>Disk (DATA):</b> 12 x 3TB NVMe (or 24 x)</li> <li>• <b>NIC:</b> 2 x 25G</li> </ul>

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