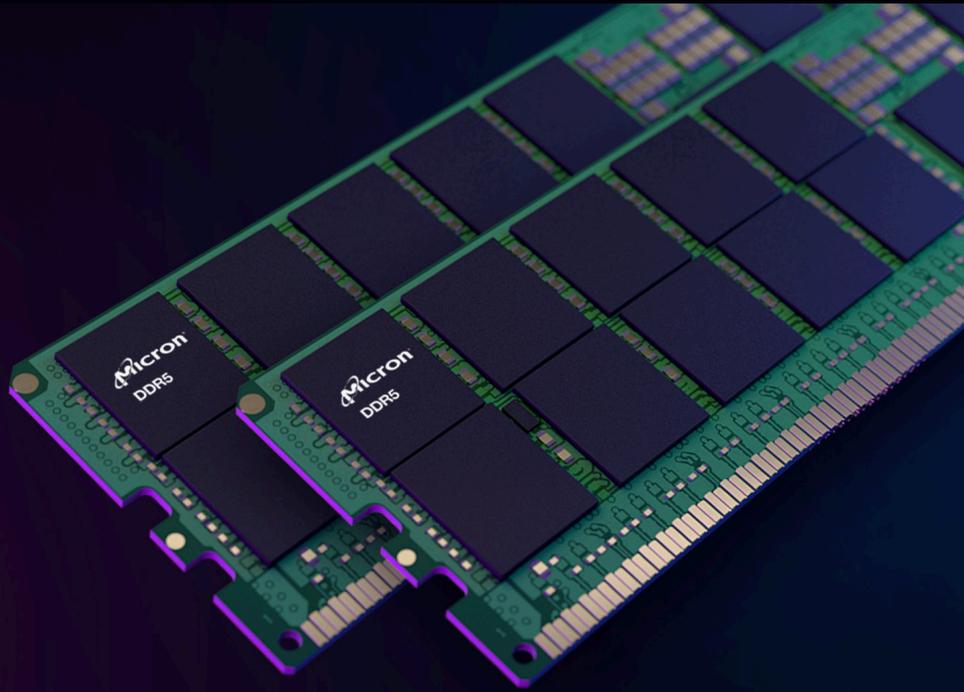




# 96GB Server DRAM DDR5



## Micron 96GB DDR5 RDIMM, when less can be so much more

### Same performance but costs 50% less than 128GB 3DS RDIMMs

When is 96 greater than 128? When it's Micron's new 96GB DDR5 RDIMM vs 128GB 3DS RDIMM. The new 96GB RDIMM offers equal performance — but delivers more value at a 50% lower cost<sup>1</sup> using a single die package (SDP).

It's no secret that big data is surging and will only grow more in the future. Yet data center system administrators are forced to maintain a balance between gaining the highest performance possible and maintaining the lowest cost. For the highest performance, system administrators will assume 128GB 3DS RDIMMs would be the best solution, but those modules are not cost effective. They don't realize Micron's new 96GB RDIMMs can step into the gap and give system administrators the same performance for a greatly reduced price.

### Best for



Artificial  
intelligence



Data  
mining



Predictive  
analytics



Intensive  
simulations

### Key features

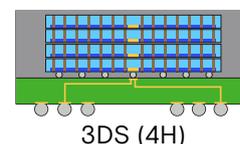
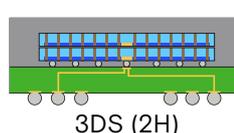
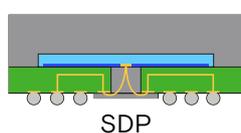
- Increase performance by up to 85% over DDR4<sup>2</sup>
- Introducing speeds of 5,600MT/s
- New higher RDIMM density of 96GB
- Optimized for the latest Intel® and AMD® server and workstation platforms
- 3-year limited warranty<sup>3</sup>
- 100% component and module tested
- Operating voltage reduced from DDR4's 1.2V to 1.1V
- Manufactured by Micron®
- Available in RDIMM, ECC UDIMM and ECC SODIMM

Adding to the challenge data centers face is the fact that they consume approximately 3% of the world's electricity and are expected to need 8% by 2030<sup>4</sup>. At that point, electricity consumption will be dependent on availability and restrictions. Even so, AI, data mining, predictive analytics, and intensive simulations will be needing more. Do we also have the solution to consuming less electricity? Yes!

Again, this is where Micron 96GB RDIMMs are better than 128GB 3DS RDIMMs. They share the same optimized performance (within 10%<sup>5</sup>), while decreasing power needs by up to 24%<sup>6</sup>.

Why do 96GB RDIMMs score higher in comparison to 128GB 3DS RDIMMs? While the 96GB RDIMM is assembled as a 24Gb single die package (SDP), the 128GB 3DS RDIMM is based on two 16Gb three-dimensional stacked (3DS) die. It's well known that 3DS RDIMMs come with drawbacks, including the fact that they are more complex to produce and have lower yields. Both factors drive the price up. In comparison, 3DS RDIMMs also have a higher memory latency, which can slow overall performance.

Package	SDP	3DS
Max RDIMM Capacity <sup>1</sup>	96GB	128GB (2H) or 265GB (4H)
Latency	Lower than 3DS	Higher than SDP
Cost/Gb	Much lower than 3DS	Much higher than SDP



	1 DIMM Per Channel		2 DIMM Per Channel	
	Micron 96GB	Competition 128GB 3DS	2x Micron 96GB	2x Competition 128GB 3DS
Power (measured)	22% lower power		2x lower power	
Cost	Baseline cost	-2.5x higher cost	Baseline cost	-2.5x higher cost
System capacity	1.5TB	2TB	3TB	4TB
Read latency (CL)	16.64ns (-13%)	19.14ns	16.30ns (-15%)	19.14ns
Micro-benchmark	+5%		+2% (low load)	+2% (high load)
AI natural language & AI-recommender	+1%		Equivalent	
In-memory Database		+4%	Equivalent	
Database OLAP		+8%		+4%
Big data streaming/ spark analytics		+2%	Equivalent	

Micron's 96GB RDIMMs provide enough capacity for computationally intensive applications with the lowest TCO compared to 128GB 3DS RDIMMs. They're 50% less expensive. And use 24% lower power. There's no need to look elsewhere when Micron 96GB RDIMMs are capable of accelerating the most bandwidth-hungry workloads.

Learn more at <https://www.microncp.com/serverDDR5>

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1. Compared to competitive 128GB 3DS RDIMMs

2. Under memory-intensive workloads, DDR5 is designed to deliver 1.87x the bandwidth of DDR4 as a result of double the burst length, double the banks and bank groups, and significantly higher speed, as established by JEDEC, an independent organization that develops open standards for the microelectronics industry.

3. Warranty valid for 3 years from the original date of purchase.

4. <https://www.eetimes.eu/power-management-facilitating-the-energy-journey/>

5. Comparison made across a range of benchmarks with each solution showing +/- 10% performance difference.

6. Achieved by lesser power consumed for idle and loaded latency vs 128GB 3DS RDIMMs.