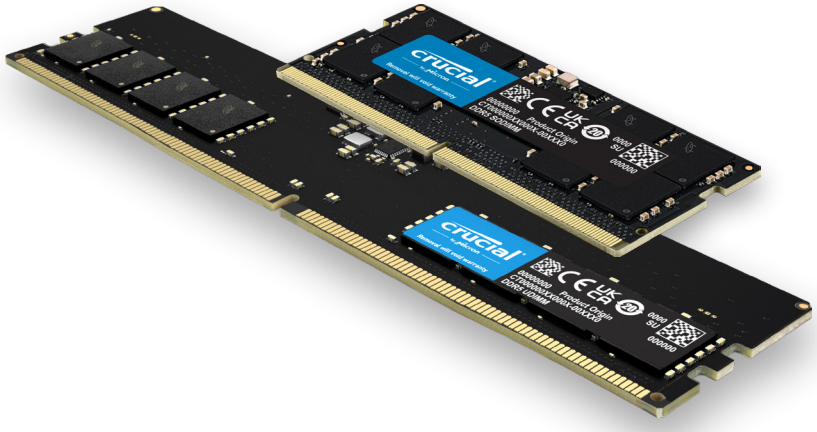
The memory & storage experts™

CRUCIAL DDR5 MEMORY



Not just faster. *Better*.

Harness second-gen DDR5 performance right out-of-the-box

Workplace desktops and mobile workstations need higher bandwidth memory to feed next-generation CPU cores, whether analyzing huge data sets, compiling complex codes, rendering, or editing images or 8K videos. Ultimately, mainstream business and workstation users need memory that supports effortless multitasking, switching seamlessly between apps, and even more open browser tabs without lagging systems. Crucial DDR5 Memory delivers the essential speed and bandwidth to satisfy the demands of next-generation multi-core CPUs.

Best For

Next-generation computing platforms

Key Features

- Up to 5600MT/s — 1.75x the data rates of DDR4[7]
- 8, 16, 24, 32 and 48GB densities[4,8]
- 2x the bandwidth of DDR4[2] enabled by:
  - o 2x the burst length of DDR4
  - o 2x the banks and bank groups of DDR4
  - o On-module power management integrated circuit (PMIC[9])
  - o Two independent 32-bit channels per module (64 bits total)
  - o Improved refresh schemes
- On-die ECC (ODECC) for long-term stability[10]
- (UDIMM) Intel® XMP 3.0 and AMD EXPO™ supported[6]

Boost workforce productivity, save time and money

Crucial DDR5 Memory can transfer data up to 1.75x faster and deliver up to 2x more bandwidth than DDR4, helping workplace users uncover data insights faster and boost productivity. DDR5 performance is enhanced not just during testing, but in real-world conditions[2].

The only DDR5 brand with support for both Intel® XMP 3.0 and AMD EXPO™ *(UDIMM)*

Even with CPUs that suppress memory speed, Crucial DDR5 desktop memory can reach its rated speeds with Intel® XMP 3.0 and AMD EXPO™ turned on in the UEFI/BIOS settings[14]. Get the full value of your investment without overpaying for performance and enjoy the flexibility of using your Crucial DDR5 desktop memory in either an Intel or AMD build[6].

No latency downsides with DDR5

Crucial DDR5's system latency, measured in nanoseconds, is only up to 3% longer than DDR4 during testing, meaning real-world latency performances are virtually the same. With Crucial DDR5 delivering up to 2x more bandwidth, DDR4 is still outperformed[15].

The Micron difference – tested reliability you can trust

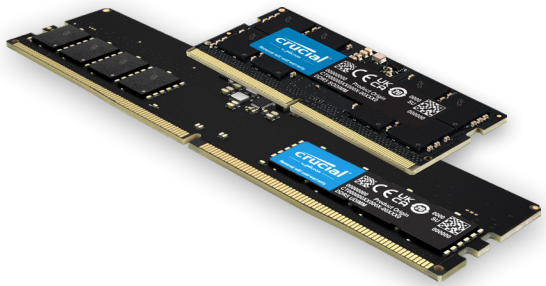
As the vertically integrated consumer brand of Micron, Crucial is trusted by millions for reliability, performance, and compatibility. Unlike module assemblers, we have a unique relationship with Micron that involves a deeper level of engineering collaboration to squeeze every ounce of performance from our products without compromising reliability. Our superior memory products are backed by a limited lifetime warranty[12], training, documentation, and video assistance, customer support from an experienced sales network, and trusted pricing and inventory consistency. When it comes to memory, don't settle for less.

Available parts

Crucial DDR5 Memory is available for DDR5-enabled hardware. View our complete offering at **www.crucial.com.**

Crucial® DDR5 Memory	
Density	8GB, 16GB, 24GB[4], 32GB, 48GB[4]
Speed	4800MT/s, 5200MT/s, 5600MT/s
Voltage	1.1V
Pin count	288-pin

DDR5 memory is not compatible with DDR4 systems. Higher speed memory can downclock when system specifications only support lower speed grades.



1. Only with a DDR5-enabled CPU and motherboard. DDR5 desktop memory is not compatible with DDR4 motherboards.
2. Under memory-intensive workloads, DDR5 can deliver up to 2x the bandwidth, per an internal simulation of dual ranked x8 modules in client platforms.
3. DDR5 4800MT/s speeds are comparable to extreme-performance DDR4 memory speeds and 1.5x faster than maximum standard DDR4 speeds of 3200MT/s.
4. 24GB and 48GB densities are only available in SODIMM form factors.
5. Since 12th Gen Intel® Core™ processors are compatible with either DDR4 or DDR5 memory, adopting DDR5 will yield superior system performance.
6. Crucial DDR5 desktop memory modules (UDIMMs) can reach rated speeds with Intel XMP 3.0 or AMD EXPO™ turned on in the UEFI/BIOS settings. Applicable for all Crucial DDR5 desktop memory (UDIMM) modules except Crucial DDR5-4800 desktop memory, which supports only Intel® XMP 3.0. Based on published competitor specs for DDR5 memory as of October 2022. Altering clock frequency or voltage beyond JEDEC specifications may result in damage to computer components. Warranty voided if Crucial DRAM modules are set to overclock beyond JEDEC specifications, rated speeds, and timings. Micron disclaims any and all liability for such damage.
7. DDR5 data rate of 4800MT/s transfers 1.5x more data than the maximum standard DDR4 data rate of 3200MT/s.
8. Densities at launch and those planned are defined by JEDEC for the life of the DDR5 generation of memory.
9. DDR5 modules (DIMMs) introduce voltage regulation on the module through a power management integrated circuit (PMIC), which enables better power regulation and reduces the scope of DRAM power delivery network (PDN) management on the motherboard for increased efficiency.
10. On-die ECC (ODECC) is a feature of the DDR5 component specification and should not be confused with the module-level ECC features on server and workstation RDIMMs, LRDIMMs, ECC UDIMMs and ECC. Crucial DDR5 Memory includes ODECC but does not include the additional components necessary for system level ECC.
11. Compared to published DDR4-3200 speeds.
12. Limited lifetime warranty valid everywhere except Germany and France, where warranty is valid for ten years from the date of purchase.
13. Includes 5-star Amazon reviews for Crucial desktop, laptop and memory for Mac DRAM products as of July, 2021.
14. Crucial DDR5 Memory is standard JEDEC memory. Memory speed is not controlled exclusively by the module itself but also by the memory controller in the CPU and the BIOS/firmware on the motherboard. XMP or EXPO support is provided on desktop memory (UDIMM) modules so customers can easily recover memory performance up to JEDEC speeds if experiencing a system-level downclocking of their memory. Performance recovery is not guaranteed on all DDR5 systems and is highly dependent on the CPU tier, motherboard tier, and BIOS stability.
15. DDR5 launch speeds of 4800MT/s delivers 1.87x the bandwidth of the maximum standard DDR4 speeds of 3200MT/s. Despite, true latency for DDR5-4800 being longer than DDR4-3200, because of the improved channel efficiency, DDR5 still outperforms DDR4 in effective bandwidth.