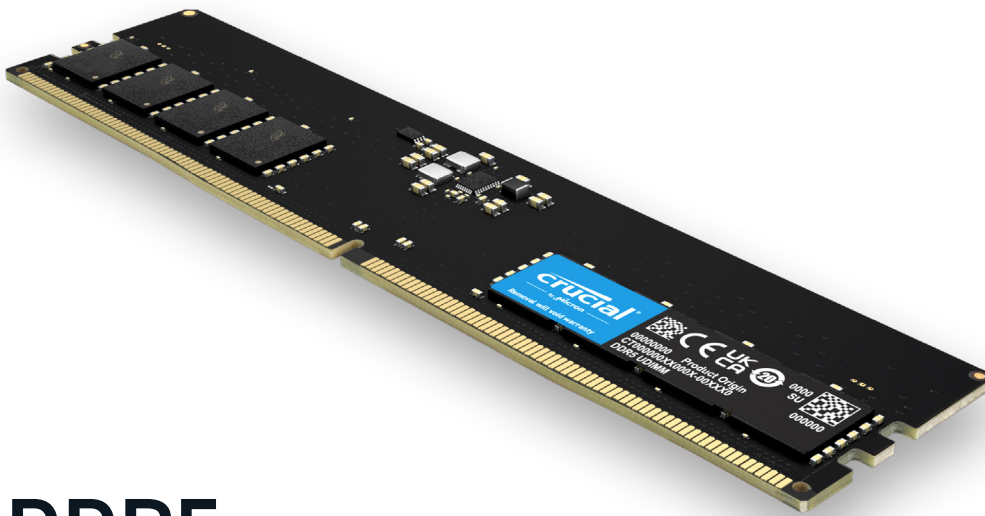# CRUCIAL DDR5 DESKTOP MEMORY

DDR5
Not Just Faster. *Better*.

Crucial DDR5 Desktop Memory powers a new era of computing innovation

Crucial DDR5 Desktop Memory has the high speed needed for the next generation of multi-core CPUs, but it's not just faster than DDR4, it's better[1]. This innovative technology empowers your system to multitask seamlessly, load, analyze, edit, and render faster — all with higher frame rates, significantly less lag, and optimized power efficiency over the previous generation[2]. Available in blazing speeds of 4800MT/s and densities of up to 32GB at launch, Crucial DDR5 Desktop Memory can enable your computer[3] to harness the blazing speeds that were once only possible with extreme performance memory[4].

Incredible performance
up to 4800MT/s[4]

1.87x bandwith
of DDR4[2]

LIFETIME
Limited lifetime
warranty[9]

crucial.com/products/memory

Faster load times and file transfers

Crucial DDR5 Desktop Memory can empower your computer to transfer 50% more data than DDR4 at launch, resulting in faster load times, file transfers, downloads, refresh rates and less lag time[5]. Due to higher bus efficiency, DDR5 technology is not just faster than the previous generation, it's *better*[1].

More responsive multitasking

Crucial DDR5 offers 50% faster speeds than DDR4 at launch[4], empowering users with extreme performance right out of the box. Even more impressive, Crucial DDR5 is optimized for enhanced performance and multitasking, not just during testing, but in real-world conditions. Opening more browser tabs and switching between apps now feels more responsive than ever.

Extreme innovation for stable performance

Crucial DDR5 takes an extreme step forward in engineering over the previous generation with two independent 32-bit channels per module for optimized performance[7]. Designed with on-die ECC (ODECC)[8] at the component level for long-term stability, Crucial DDR5 is engineered to maintain the same reliability as the previous generation, even with the rigorous demands of next-gen computing.

Optimized power efficiency

For improved efficiency and stability, Crucial DDR5 introduces on-module voltage regulation with a power management integrated circuit (PMIC), which was on the motherboard with older memory technologies[7]. This results in improved signaling and cleaner power for the modules (DIMMs). Moreover, DDR5's on-module operating voltage is only 1.1V compared to DDR4's 1.2V.

Micron quality – 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, our unique relationship with Micron involves a deeper level of engineering collaboration to squeeze every ounce of performance from our products without compromising reliability. With Micron's 43+ years of manufacturing excellence and Crucial's 25+ years of consumer product development, Crucial DDR5 is backed by our limited lifetime warranty[9] and delivers the powerful performance you can trust. When it comes to memory, don't settle for less.

Available Parts

Crucial desktop memory is available for nearly every system. View our complete offering at **www.crucial.com.**

Crucial® DDR5 Desktop Memory*	
Density	8GB, 16GB, 32GB
Speed	4800MT/s
Voltage	1.1V
Pin count	288-pin
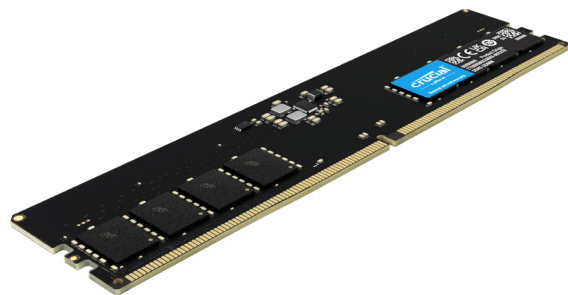
*Computer must have a DDR5-enabled CPU and motherboard.
Crucial DDR5 Desktop Memory is not compatible with
DDR4 motherboards.*

1. DDR5 architecture includes efficiency improvements that deliver 36% more system bandwidth than DDR4, even at the same theoretical speeds of 3200MT/s, due to the high bus efficiency of DDR5 technology. Combined with lower voltage per module, this design provides superior (better) performance.
2. Under memory-intensive workloads, DDR5 delivers 1.87x the bandwidth as a result of double burst length, double the banks and bank groups, and significantly higher speed than DDR4. It is enabled to support scaling memory performance with improved channel efficiency, even at higher speeds, not just during testing, but under real-world condition, as established by JEDEC, an independent standardization body that develops open standards for the microelectronics industry.
3. Computer must have a DDR5-enabled CPU and motherboard. Crucial DDR5 Desktop Memory is not compatible with DDR4 motherboards.
4. DDR5 launch speeds of 4800MT/s are comparable to extreme-performance DDR4 memory speeds and are 1.5x (50%) faster than maximum standard DDR4 speeds of 3200MT/s. DDR5 launch speeds of 4800MT/s delivers 1.87x the bandwidth of the maximum standard DDR4 speeds of 3200MT/s.
5. DDR5 launch data rate of 4800MT/s transfers 1.5x (50%) more data than the maximum standard DDR4 data rate of 3200MT/s.
6. Densities at launch and those planned are defined by JEDEC for the life of the DDR5 generation of memory.
7. 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.
8. Crucial DDR5 Desktop Memory is non-ECC memory. The ECC as it pertains to RDIMMs, LRDIMMs, ECC UDIMMs and ECC SODIMMs is a function that requires additional DRAM at the module level so that platforms, such as servers and workstations, can correct for errors on individual modules (DIMMs). On-die ECC (ODECC), however, is a feature of the DDR5 component specification and should not be confused with the module-level ECC feature. Crucial DDR5 Desktop Memory is built with DDR5 components that include ODECC, however these modules do not include the additional components necessary for system level ECC.
9. Limited lifetime warranty valid everywhere except Germany and France, where warranty is valid for ten years from the date of purchase.