

How to choose the right Intel motherboard for your PC

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Online Desk: Selecting the appropriate motherboard for your Intel CPU is a crucial decision when building or upgrading your PC. The motherboard is your system's foundation, determining compatibility, performance, and expandability. As such, you should be aware of what motherboards are the best fit for your PC. Read on to find out about our recommendations of motherboards for 14th-gen Intel processors as well as their compatibility with 13th-gen unlocked CPUs.

Motherboards for i5 14600K / 13600K

For those considering the i5 14600K or 13600K, we recommend opting for DDR5 motherboards to leverage cost-effectiveness. However, it's vital to strike a balance to avoid overspending on the motherboard and missing out on a more capable CPU like the i7 14700K. The Z690 motherboards offer a sweet spot with upgraded audio features, extensive rear panel connectivity, and a competitive price-to-performance ratio.

Asus ROG Strix Z690-F Gaming Wi-Fi

As a standout choice in this category, this motherboard features built-in Wi-Fi 6E, premium audio components, and ample rear panel connectivity. Its elegant design and robust VRM cater to various needs with multiple M.2 slots, including front panel USB Type-C. It has a BIOS flashback, which is important because all the Asus boards below the ROG Strix ones don't have this feature. You could put an i9 14900K on this if you want to and can afford it, although if you spend that much on the CPU, you may also need a good cooler.

MSI MPG Z690 Force Wi-Fi DDR5

This white-themed motherboard offers excellent rear panel connectivity and features similar to its counterparts. It is a good choice if you want a cohesive visual theme for your build and don't need the extra features of the Carbon EK X model.

Gigabyte Z690 AERO G

This creator-focused motherboard, essentially an AORUS Pro with a white aesthetic instead of an orange one, boasts upgraded audio and connectivity, catering to content creators and gamers alike.

MSI Pro Z690-A

If you're seeking upgraded features on the Z790 without breaking the bank, the MSI Pro Z690-A is worth considering. It incorporates the ALC 4080 audio upgrade, robust rear panel connectivity, and multiple M.2 slots. Its enhanced memory trace allows for high DDR5 speeds, even though it doesn't have as many M.2 slots as some Z690 boards.

Motherboards for i7 14700K / i9 14900K

For the more powerful i7 14700K and i9 14900K, any previously mentioned motherboards will suffice for traditional memory speeds. However, if you want to push super-fast DDR5 speeds or do more overclocking, consider boards from the newer Z790 series tailor-made for 14th-gen Intel CPUs.

Gigabyte Z790 AORUS Elite X AX

A high-performance motherboard claims overclocked memory speeds of up to 8266MHz with XMP 3.0. While it's a bold promise, it underscores the performance capabilities of 14th-gen CPUs. It also features Wi-Fi 6E, an advanced audio system with ALC1220 codec and Audiophile Grade Capacitors, comprehensive rear panel connectivity and a robust Digital twin VRM. There is also a Wi-Fi 7 version of this motherboard, identical to this board.

Asus ROG Strix Z790-F Gaming Wi-Fi 6E

This motherboard is designed for Asus enthusiasts seeking a sleek, powerful, and reliable foundation for their PC builds. It supports Wi-Fi 6E and M.2 Shield Frozr for thermal protection of SSDs and features a robust VRM. The audio section uses ROG SupremeFX ALC4080 codec with audiophile-grade capacitors and DTS Sound Unbound support. It's still an excellent motherboard and will push those slightly faster memory speeds compared to other similar products.

Gigabyte Z790 AORUS Pro X

If you desire a super-fast board, a white PCB, and dazzling RGB lighting, the AORUS Pro X is a standout choice, excelling in both aesthetics and functionality. It supports overclocked memory speeds up to 8266MHz and features five M.2 slots, Wi-Fi 7, and high-res audio with ALC1220 codec and audiophile-grade capacitors. It also has a user-centred BIOS, sensor panel link, and M.2 EZ-Latch for SSD installation.

Asus TUF Gaming Z790-Pro Wi-Fi 6E

The motherboard offers Wi-Fi 6E support and M.2 Shield Frozr for thermal protection of SSDs. It has four M.2 slots, one less than the ROG Maximus Z790 Hero Wi-Fi, and a cut-down audio section, not in terms of the audio codec itself but in the number of capacitors. It balances features and performance, with OC capabilities reaching 7800+ MHz.

MSI MAG Z790 TOMAHAWK MAX Wi-Fi

This motherboard delivers impressive performance with memory speeds that can exceed 7800+ MHz. It also supports Wi-Fi 7, provides thermal protection for SSDs with the exclusive M.2 Shield Frozr and other premium features that make it an attractive option.

Creator motherboards for 14th gen

If you want a creator motherboard for 14th-generation Intel, consider boards with Thunderbolt 4 support. Several Z690 and Z790 DDR5 motherboards have Thunderbolt 4 ports on them.

ASUS ROG Maximus Z790 Hero Wi-Fi

This is a high-end motherboard that stands out with its extensive feature set for enthusiasts and creators. It has Wi-Fi 6E, 20-phase VRM, four M.2 slots for fast storage, three PCIe 5.0 x16 slots, and a 2-inch LCD screen that displays system information and custom graphics. It also has two Thunderbolt 4 ports on the rear panel and a header for an additional Thunderbolt 4 port.

MSI MAG Z690 ACE

You can consider this older option for a mid-range motherboard with a good balance of performance and features. It has Wi-Fi 6E, a 16-phase VRM and four M.2 slots with heatsinks for cooling. It also has three PCIe 5.0 x16 slots and a debug LED. It also has a Thunderbolt 4 port and a header for an additional port for connectivity.

Budget motherboards for i5 12600K / 12400 / 13400 / 13500

If you're looking for the best budget motherboard for Intel 12th and 13th-gen locked CPUs, DDR4 motherboards are a cost-effective solution. These motherboards are still compatible with these CPUs and maintain affordability.

MSI Pro B660M-A Wi-Fi DDR4

This motherboard is a micro ATX motherboard that supports the 12th gen CPUs. It offers robust rear panel connectivity, four M.2 slots, and Wi-Fi 6E support. While it lacks BIOS flashback, it accommodates CPUs like the i7 12700F. The ASUS Prime B660M-A Wi-Fi DDR4 offers a similar price and feature set but includes BIOS flashback.

Gigabyte B760M Gaming X AX DDR4

This motherboard is a micro ATX motherboard that supports the 12th and 13th gen CPUs. It provides BIOS flashback support and offers a balanced feature set with Wi-Fi 6E, a 10-phase VRM, two M.2 slots, and decent audio components. You can also check out ASUS TUF Gaming B760M-PLUS Wi-Fi DDR4, a similar price and feature set as this board, offering Wi-Fi 6E, a 10-phase VRM, two M.2 slots, and decent audio components. However, it has fewer USB ports on the rear panel and no DisplayPort.

ASUS ROG Strix B760-A Gaming Wi-Fi D4

For those willing to allocate a slightly higher budget, this motherboard stands out as a notable budget option for Intel 12th and 13th gen-locked CPUs. It offers unparalleled value with a BIOS flashback, Wi-Fi 6E, a 14-phase VRM, three M.2 slots, and an enhanced audio section featuring an ALC1220 codec. Its stylish design, RGB lighting, and ATX form factor make it an outstanding balance of performance and affordability. If you are looking for a similar motherboard from ASUS, consider the ASUS ROG Strix B760-A Gaming Wi-Fi, which has a similar price and feature set as this board but supports DDR5 memory instead of DDR4.

DDR4 Z690 for i5 12600K & 12700K

If you are looking for a Z-series motherboard for an i5 12600K, i7 12700K, or even an i5 13600k, you have some excellent options in the DDR4 Z690 category. These motherboards are more affordable than the DDR5 ones, and they still offer overclocking support and other features for these processors, making them suitable for a broad spectrum of users.

MSI MAG Z690 Tomahawk Wi-Fi DDR4

This is a high-end motherboard that offers top-tier performance with Wi-Fi 6E, a 16-phase VRM, four M.2 slots, and a robust audio section featuring an ALC4080 codec. This motherboard supports both 12th and 13th-generation CPUs with BIOS flashback features.

ASUS TUF Gaming Z690-Plus Wi-Fi D4

This mid-range motherboard offers a balanced feature set suitable for 12th and 13th-gen CPUs. This ASUS board features a BIOS flashback, Wi-Fi 6E, a 16-phase VRM, three M.2 slots, and reliable audio components featuring an ALC1220 codec.

Selecting the right motherboard is crucial for optimising Intel CPU performance. Depending on your needs, whether you're focused on gaming, content creation, or cost efficiency, there's a motherboard out there that perfectly suits your requirements. Do your research and stay up to date with the latest tech. Remember, buy wise or buy twice.