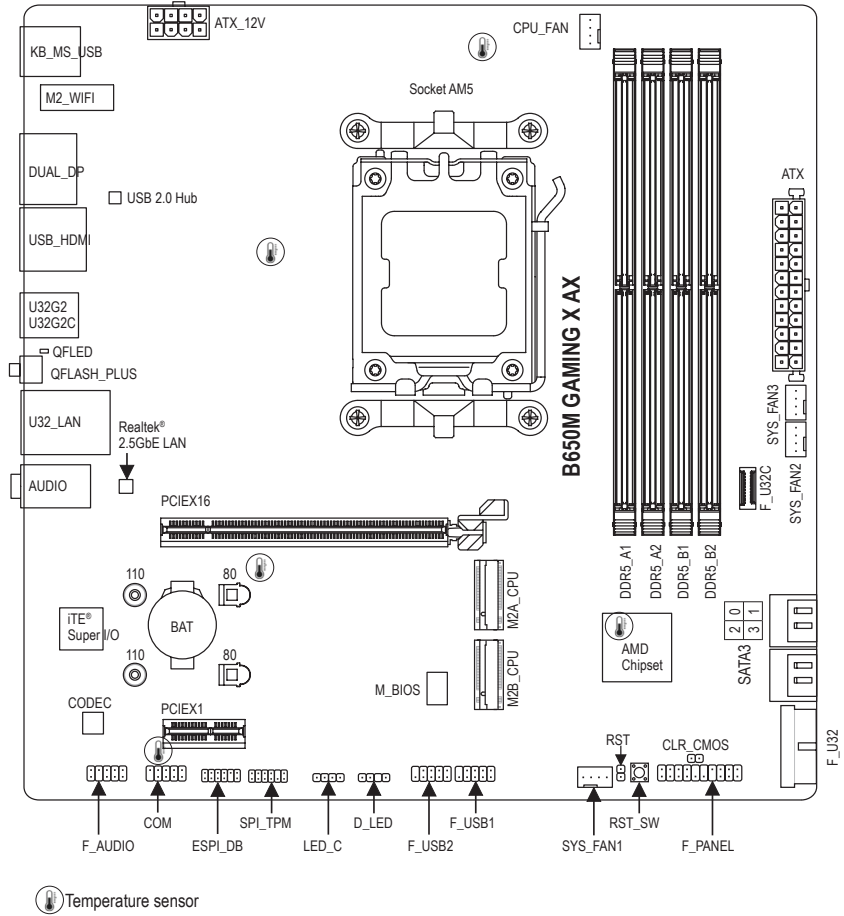










Chapter 1 Product Introduction




1-1 Motherboard Layout











2-2 Product Specifications

	CPU	<ul style="list-style-type: none"> ◆ AMD Socket AM5, support for: AMD Ryzen™ 7000 Series Processors (Go to GIGABYTE's website for the latest CPU support list.)
	Chipset	<ul style="list-style-type: none"> ◆ AMD B650
	Memory	<ul style="list-style-type: none"> ◆ Support for DDR5 5200/4800/4400 MT/s memory modules ◆ 4 x DDR5 DIMM sockets supporting up to 128 GB (32 GB single DIMM capacity) of system memory ◆ Dual channel memory architecture ◆ Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules ◆ Support for AMD Extended Profiles for Overclocking (AMD EXPO™) and Extreme Memory Profile (XMP) memory modules (Go to GIGABYTE's website for the latest supported memory speeds and memory modules.)
	Onboard Graphics	<ul style="list-style-type: none"> ◆ Integrated Graphics Processor: <ul style="list-style-type: none"> - 2 x DisplayPorts, supporting a maximum resolution of 3840x2160@144 Hz * Support for DisplayPort 1.4 version and HDR. - 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz * Support for HDMI 2.0 version and HDCP 2.3. ** Support native HDMI 2.1 TMDS compatible ports. (Graphics specifications may vary depending on CPU support.) ◆ Support for up to 3 displays at the same time
	Audio	<ul style="list-style-type: none"> ◆ Realtek® Audio CODEC ◆ High Definition Audio ◆ 2/4/5.1/7.1-channel * You can change the functionality of an audio jack using the audio software. To configure 7.1-channel audio, access the audio software for audio settings.
	LAN	<ul style="list-style-type: none"> ◆ Realtek® 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
	Wireless Communication Module ①	<ul style="list-style-type: none"> ◆ AMD Wi-Fi 6E RZ616 (MT7922A22M) (For PCB rev. 1.0) <ul style="list-style-type: none"> - WIFI a, b, g, n, ac, ax, supporting 2.4/5/6 GHz carrier frequency bands - BLUETOOTH 5.2 - Support for 11ax 160MHz wireless standard and up to 2.4 Gbps data rate ◆ Intel® Wi-Fi 6E AX210 (For PCB rev. 1.1) <ul style="list-style-type: none"> - WIFI a, b, g, n, ac, ax, supporting 2.4/5/6 GHz carrier frequency bands - BLUETOOTH 5.3 - Support for 11ax 160MHz wireless standard and up to 2.4 Gbps data rate (Actual data rate may vary depending on environment and equipment.)
	Expansion Slots	<ul style="list-style-type: none"> ◆ CPU: <ul style="list-style-type: none"> - 1 x PCI Express x16 slot, supporting PCIe 4.0 and running at x16 (PCIEX16) ◆ Chipset: <ul style="list-style-type: none"> - 1 x PCI Express x1 slot, supporting PCIe 3.0 and running at x1 (PCIEX1)

① Only for B650M GAMING X AX.

	Storage Interface ♦ CPU: <ul style="list-style-type: none"> - 2 x M.2 connectors (Socket 3, M key, type 25110/2280 PCIe 4.0 x4/x2 SSD support) ♦ Chipset: <ul style="list-style-type: none"> - 4 x SATA 6Gb/s connectors ♦ RAID 0, RAID 1, and RAID 10 support for NVMe SSD storage devices ♦ RAID 0, RAID 1, and RAID 10 support for SATA storage devices
	USB ♦ CPU: <ul style="list-style-type: none"> - 1 x USB Type-C® port on the back panel, with USB 3.2 Gen 2 support - 1 x USB 3.2 Gen 2 Type-A port (red) on the back panel ♦ CPU + USB 2.0 Hub: <ul style="list-style-type: none"> - 4 x USB 2.0/1.1 ports on the back panel ♦ Chipset: <ul style="list-style-type: none"> - 1 x USB Type-C® port with USB 3.2 Gen 2 support, available through the internal USB header - 4 x USB 3.2 Gen 1 ports (2 ports on the back panel, 2 ports available through the internal USB header) - 4 x USB 2.0/1.1 ports available through the internal USB headers
	Internal Connectors ♦ 1 x 24-pin ATX main power connector ♦ 1 x 8-pin ATX 12V power connector ♦ 1 x CPU fan header ♦ 3 x system fan headers ♦ 1 x addressable LED strip header ♦ 1 x RGB LED strip header ♦ 2 x M.2 Socket 3 connectors ♦ 4 x SATA 6Gb/s connectors ♦ 1 x front panel header ♦ 1 x front panel audio header ♦ 1 x USB Type-C® header, with USB 3.2 Gen 2 support ♦ 1 x USB 3.2 Gen 1 header ♦ 2 x USB 2.0/1.1 headers ♦ 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0 module only) ♦ 1 x serial port header ♦ 1 x reset button ♦ 1 x reset jumper ♦ 1 x Clear CMOS jumper

 Back Panel Connectors	<ul style="list-style-type: none"> ◆ 4 x USB 2.0/1.1 ports ◆ 1 x PS/2 keyboard/mouse port ◆ 2 x SMA antenna connectors (2T2R)① ◆ 2 x DisplayPorts ◆ 1 x HDMI port ◆ 1 x USB 3.2 Gen 2 Type-A port (red) ◆ 1 x USB Type-C® port, with USB 3.2 Gen 2 support ◆ 1 x Q-Flash Plus button ◆ 1 x RJ-45 port ◆ 2 x USB 3.2 Gen 1 ports ◆ 3 x audio jacks
 I/O Controller	<ul style="list-style-type: none"> ◆ iTE® I/O Controller Chip
 Hardware Monitor	<ul style="list-style-type: none"> ◆ Voltage detection ◆ Temperature detection ◆ Fan speed detection ◆ Fan fail warning ◆ Fan speed control <p>* Whether the fan speed control function is supported will depend on the cooler you install.</p>
 BIOS	<ul style="list-style-type: none"> ◆ 1 x 256 Mbit flash ◆ Use of licensed AMI UEFI BIOS ◆ PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
 Unique Features	<ul style="list-style-type: none"> ◆ Support for GIGABYTE Control Center (GCC) <p>* Available applications in GCC may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications.</p> <ul style="list-style-type: none"> ◆ Support for Q-Flash ◆ Support for Q-Flash Plus
 Bundled Software	<ul style="list-style-type: none"> ◆ Norton® Internet Security (OEM version) ◆ LAN bandwidth management software
 Operating System	<ul style="list-style-type: none"> ◆ Support for Windows 11 64-bit ◆ Support for Windows 10 64-bit
 Form Factor	<ul style="list-style-type: none"> ◆ Micro ATX Form Factor; 24.4cm x 24.4cm

* GIGABYTE reserves the right to make any changes to the product specifications and product-related information without prior notice.

① Only for B650M GAMING X AX.

☞ Please visit GIGABYTE's website for support lists of CPU, memory modules, SSDs, and M.2 devices.
<https://www.gigabyte.com/Motherboard/B650M-GAMING-X-AX-rev-10?m=dl#support-dl>
<https://www.gigabyte.com/Motherboard/B650M-DS3H-rev-10?m=dl#support-dl>

☞ Please visit the **SERVICE/SUPPORTUtility** page on GIGABYTE's website to download the latest version of apps.
<https://www.gigabyte.com/Support/Utility/Motherboard?m=ut>