

2-2 Product Specifications

 CPU	AMD Socket AM5, support for: AMD Ryzen™ 9000 Series Processors/ AMD Ryzen™ 8000 Series Processors/ AMD Ryzen™ 7000 Series Processors (Go to GIGABYTE's website for the latest CPU support list.)
 Chipset	AMD B840
 Memory	- Support for DDR5 5200/4800 MT/s memory modules 4 x DDR5 DIMM sockets supporting up to 256 GB (64 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 (The CPU and memory configuration may affect the supported memory types, data rate (speed), and number of DRAM modules, please refer to "Memory Support List" on GIGABYTE's website for more information.)
 Onboard Graphics	- Integrated Graphics Processor with AMD Radeon™ Graphics support: 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz * Support for HDMI 2.1 version, HDCP 2.3, and HDR. ** Support for native HDMI 2.1 TMDS compatible ports. 1 x DisplayPort, supporting a maximum resolution of 3840x2160@144 Hz * Support for DisplayPort 1.4 version. (Graphics specifications may vary depending on CPU support.)
 Audio	- 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	Realtek® 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
 Wireless Communication Module	- Realtek® Wi-Fi 6E RTL8852CE - 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 (Actual data rate may vary depending on environment and equipment.) * Bluetooth version may change with updates. See the Wi-Fi chip vendor's website for details.



Expansion Slots

- ♦ 1 x PCI Express x16 slot (PCIEX16), integrated in the CPU:
 - » AMD Ryzen™ 9000/7000 Series Processors support PCIe 4.0 x16 mode
 - » AMD Ryzen™ 8000 Series-Phoenix 1 Processors support PCIe 4.0 x8 mode
 - » AMD Ryzen™ 8000 Series-Phoenix 2 Processors support PCIe 4.0 x4 mode
 - * The PCIEX16 slot can only support a graphics card or an NVMe SSD. If only one graphics card is to be installed, be sure to install it in the PCIEX16 slot.
- ♦ Chipset:
 - 1 x PCI Express x16 slot, supporting PCIe 3.0 and running at x4 (PCIEX4)
 - 2 x PCI Express x16 slots, supporting PCIe 3.0 and running at x1 (PCIEX1_1, PCIEX1_2)
 - * The PCIEX4 slot shares bandwidth with the PCIEX1_1 and PCIEX1_2 slots. The PCIEX4 slot operates at up to x2 mode when the PCIEX1_1/PCIEX1_2 slot is populated.



Storage Interface

- ♦ 1 x M.2 connector (M2A_CPU), integrated in the CPU, supporting Socket 3, M key, type 25110/22110/2580/2280 SSDs:
 - » AMD Ryzen™ 9000/7000 Series Processors support PCIe 4.0 x4/x2 SSDs
 - » AMD Ryzen™ 8000 Series-Phoenix 1 Processors support PCIe 4.0 x4/x2 SSDs
 - » AMD Ryzen™ 8000 Series-Phoenix 2 Processors support PCIe 4.0 x4/x2 SSDs
- ♦ 1 x M.2 connector (M2B_CPU), integrated in the CPU, supporting Socket 3, M key, type 25110/22110/2580/2280 SSDs:
 - » AMD Ryzen™ 9000/7000 Series Processors support PCIe 4.0 x4/x2 SSDs
 - » AMD Ryzen™ 8000 Series-Phoenix 1 Processors support PCIe 4.0 x4/x2 SSDs
 - » AMD Ryzen™ 8000 Series-Phoenix 2 Processors support PCIe 4.0 x2 SSDs
- ♦ 1 x M.2 connector (M2C_SB), integrated in the Chipset, supporting Socket 3, M key, type 25110/22110/2580/2280 PCIe 3.0 x4/x2 SSDs
- ♦ 4 x SATA 6Gb/s connectors
- ♦ RAID 0, RAID 1, RAID 5, and RAID 10 support for NVMe SSD storage devices
 - * RAID 5 is only available on AMD Ryzen™ 9000 Series Processors.
- ♦ RAID 0, RAID 1, and RAID 10 support for SATA storage devices



USB

- ♦ CPU:
 - 1 x USB Type-C® port on the back panel, with USB 3.2 Gen 2 support
 - 2 x USB 3.2 Gen 1 ports on the back panel
- ♦ CPU+USB 2.0 Hub:
 - 4 x USB 2.0/1.1 ports on the back panel
- ♦ Chipset:
 - 1 x USB 3.2 Gen 2 Type-A port (red) on the back panel
 - 1 x USB Type-C® port with USB 3.2 Gen 1 support, available through the internal USB header
 - 4 x USB 2.0/1.1 ports available through the internal USB headers
- ♦ Chipset+USB 3.2 Gen 1 Hub:
 - 4 x USB 3.2 Gen 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 4-pin ATX 12V power connector ♦ 1 x CPU fan header ♦ 1 x CPU fan/water cooling pump header ♦ 3 x system fan headers ♦ 1 x system fan/water cooling pump headers ♦ 3 x addressable RGB Gen2 LED strip headers ♦ 1 x RGB LED strip header ♦ 3 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 1 support ♦ 2 x USB 3.2 Gen 1 headers ♦ 2 x USB 2.0/1.1 headers ♦ 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI V2 module only) ♦ 1 x reset jumper ♦ 1 x Clear CMOS jumper
	Back Panel Connectors	♦ 1 x power button ♦ 1 x reset button ♦ 1 x Q-Flash Plus button ♦ 1 x Clear CMOS button ♦ 1 x DisplayPort ^(Note) ♦ 1 x HDMI port ^(Note) ♦ 1 x USB Type-C® port, with USB 3.2 Gen 2 support ♦ 1 x USB 3.2 Gen 2 Type-A port (red) ♦ 2 x USB 3.2 Gen 1 ports ♦ 4 x USB 2.0/1.1 ports ♦ 1 x RJ-45 port ♦ 2 x antenna connectors (2T2R) ♦ 3 x audio jacks
	I/O Controller	♦ iTE® I/O Controller Chip
	Hardware Monitor	♦ Voltage detection ♦ Temperature detection ♦ Fan speed detection ♦ Water cooling flow rate detection ♦ Fan fail warning ♦ Fan speed control * Whether the fan (pump) speed control function is supported will depend on the fan (pump) you install.

(Note) Actual support may vary by CPU.

	BIOS	♦ 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	♦ Support for GIGABYTE Control Center (GCC) * Available applications in GCC may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications. ♦ Support for Q-Flash ♦ Support for Q-Flash Plus ♦ Support for Smart Backup
	Bundled Software	♦ Norton® Internet Security (OEM version)
	Operating System	♦ Support for Windows 11 64-bit ♦ Support for Windows 10 64-bit
	Form Factor	♦ ATX Form Factor; 30.5cm x 24.4cm

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

☞ 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>