

2-2 Product Specifications

	CPU	<ul style="list-style-type: none"> ◆ LGA1700 socket: Support for 12th Generation Intel® Core™ i9 processors/Intel® Core™ i7 processors/Intel® Core™ i5 processors (Go to GIGABYTE's website for the latest CPU support list.) ◆ L3 cache varies with CPU
	Chipset	<ul style="list-style-type: none"> ◆ Intel® Z690 Express Chipset
	Memory	<ul style="list-style-type: none"> ◆ Support for DDR5 4800/4000 MHz memory modules^{① ②} ◆ Support for DDR4 3200/3000/2933/2666/2400/2133 MHz memory modules^{③ ④} ◆ 4 x DDR DIMM sockets supporting up to 128 GB (32 GB single DIMM capacity) of system memory ◆ Dual channel memory architecture ◆ Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules (operate in non-ECC mode) ◆ Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules ◆ Support for 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-Intel® HD Graphics support: <ul style="list-style-type: none"> - 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz <ul style="list-style-type: none"> * Support for HDMI 2.0 version and HDCP 2.3. - 1 x DisplayPort, supporting a maximum resolution of 4096x2304@60 Hz <ul style="list-style-type: none"> * Support for DisplayPort 1.2 version and HDCP 2.3 <p>(Graphics specifications may vary depending on CPU support.)</p>
	Audio	<ul style="list-style-type: none"> ◆ Realtek® ALC1220-VB CODEC <ul style="list-style-type: none"> * The back panel line out jack supports DSD audio. ◆ High Definition Audio ◆ 2-channel analog output ◆ Support for S/PDIF Out <ul style="list-style-type: none"> - 7.1-channel digital signals <ul style="list-style-type: none"> * Actual output of digital signals may vary depending on the playback content and software used, and an external DAC is required.
	LAN	<ul style="list-style-type: none"> ◆ Realtek® 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
	Wireless Communication Module ^{① ③}	<ul style="list-style-type: none"> ◆ Intel® Wi-Fi 6 AX201 <ul style="list-style-type: none"> - WIFI a, b, g, n, ac, ax, supporting 2.4/5 GHz Dual-Band - BLUETOOTH 5.2 - Support for 11ax 160MHz wireless standard and up to 2.4 Gbps data rate <ul style="list-style-type: none"> * Actual data rate may vary depending on environment and equipment.
	Expansion Slots	<ul style="list-style-type: none"> ◆ 1 x PCI Express x16 slot, running at x16 (PCIEX16) <ul style="list-style-type: none"> * For optimum performance, if only one PCI Express graphics card is to be installed, be sure to install it in the PCIEX16 slot. <p>(The PCIEX16 slot conforms to PCI Express 5.0 standard.)</p> ◆ 2 x PCI Express x16 slots, running at x4 (PCIEX4_1, PCIEX4_2) <ul style="list-style-type: none"> (The PCIEX4 slots conform to PCI Express 3.0 standard.)
	Multi-Graphics Technology	<ul style="list-style-type: none"> ◆ Support for AMD Quad-GPU CrossFire™ and 2-Way AMD CrossFire™ technologies

① Only for Z690 AORUS ELITE AX.

② Only for Z690 AORUS ELITE.

③ Only for Z690 A ELITE AX DDR4.

④ Only for Z690 AORUS ELITE DDR4.

 Storage Interface	<ul style="list-style-type: none"> ◆ CPU: <ul style="list-style-type: none"> - 1 x M.2 connector (Socket 3, M key, type 2260/2280/22110 PCIe 4.0 x4/x2 SSD support) (M2A_CPU) ◆ Chipset: <ul style="list-style-type: none"> - 1 x M.2 connector (Socket 3, M key, type 2260/2280/22110 SATA and PCIe 4.0 x4/x2 SSD support) (M2M_SB) - 2 x M.2 connectors (Socket 3, M key, type 2260/2280/22110 PCIe 4.0 x4/x2 SSD support) (M2Q_SB/M2P_SB) - 6 x SATA 6Gb/s connectors ◆ Support for RAID 0, RAID 1, RAID 5, and RAID 10 <ul style="list-style-type: none"> * Refer to "2-7 Internal Connectors," for the installation notices for the M.2 and SATA connectors. ◆ Intel® Optane™ Memory Ready <ul style="list-style-type: none"> * System acceleration with Intel® Optane™ Memory can only be enabled on the M.2 connectors supported by the Chipset.
 USB	<ul style="list-style-type: none"> ◆ Chipset: <ul style="list-style-type: none"> - 1 x USB Type-C® port on the back panel, with USB 3.2 Gen 2x2 support - 1 x USB Type-C® port with USB 3.2 Gen 2 support, available through the internal USB header - 2 x USB 3.2 Gen 2 Type-A ports (red) on the back panel - 5 x USB 3.2 Gen 1 ports (3 ports on the back panel, 2 ports available through the internal USB header) ◆ Chipset+2 USB 2.0 Hubs: <ul style="list-style-type: none"> - 8 x USB 2.0/1.1 ports (4 ports on the back panel, 4 ports available through the internal USB headers)
 Internal Connectors	<ul style="list-style-type: none"> ◆ 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 water cooling CPU fan header ◆ 3 x system fan headers ◆ 1 x system fan/water cooling pump header ◆ 2 x addressable LED strip headers ◆ 2 x RGB LED strip headers ◆ 4 x M.2 Socket 3 connectors ◆ 6 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 ◆ 2 x Thunderbolt™ add-in card connectors ◆ 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0 module only) ◆ 1 x reset button ◆ 1 x Q-Flash Plus button ◆ 1 x reset jumper ◆ 1 x Clear CMOS jumper

	Back Panel Connectors	<ul style="list-style-type: none"> ◆ 1 x USB Type-C® port, with USB 3.2 Gen 2x2 support ◆ 2 x USB 3.2 Gen 2 Type-A ports (red) ◆ 3 x USB 3.2 Gen 1 ports ◆ 4 x USB 2.0/1.1 ports ◆ 2 x SMA antenna connectors (2T2R)^{① ③} ◆ 1 x HDMI port ◆ 1 x DisplayPort ◆ 1 x RJ-45 port ◆ 1 x optical S/PDIF Out connector ◆ 2 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 ◆ Water cooling flow rate detection ◆ Fan fail warning ◆ Fan speed control <ul style="list-style-type: none"> * Whether the fan (pump) speed control function is supported will depend on the fan (pump) you install.
	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 APP Center <ul style="list-style-type: none"> * Available applications in APP Center may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications. - @BIOS - EasyTune - Fast Boot - Game Boost - ON/OFF Charge - RGB Fusion - Smart Backup - System Information Viewer ◆ Support for Q-Flash Plus ◆ Support for Q-Flash ◆ Support for Xpress Install

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 Bundled Software	<ul style="list-style-type: none"> ◆ Norton® Internet Security (OEM version) ◆ Realtek® Gaming LAN Bandwidth Control Utility
 Operating System	<ul style="list-style-type: none"> ◆ Support for Windows 10 64-bit
 Form Factor	<ul style="list-style-type: none"> ◆ 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.

Z690 AORUS ELITE AX



Z690 AORUS ELITE



Z690 A ELITE AX DDR4



Z690 AORUS ELITE DDR4



Please visit GIGABYTE's website for support lists of CPU, memory modules, SSDs, and M.2 devices.



Please visit the **SupportUtility List** page on GIGABYTE's website to download the latest version of apps.