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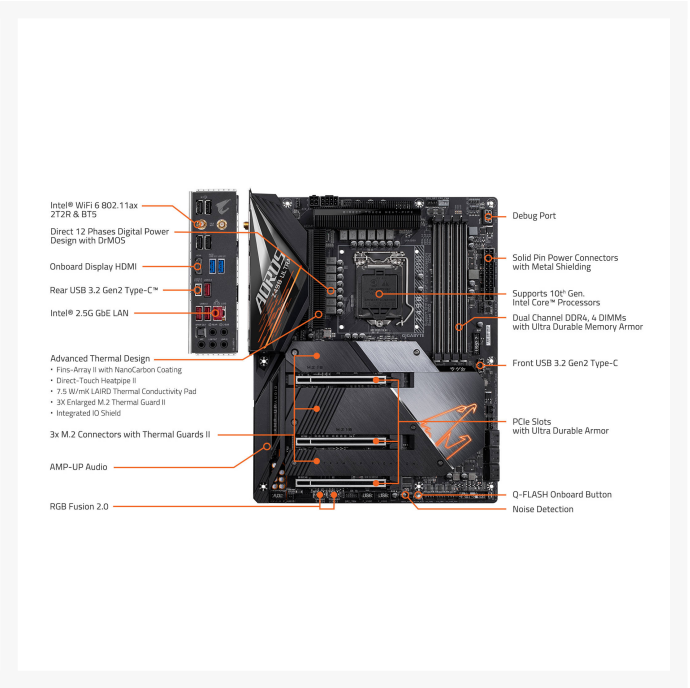
Gigabyte Z490 AORUS ULTRA LGA 1200 ATX Motherboard

$319.95

Product Images



Short Description

Take your gaming experience to the next level with the Gigabyte Z490 AORUS ULTRA LGA 1200 ATX Motherboard. Designed for gamers, enthusiasts, and content creators, this motherboard is powered by the Intel Z490 chipset and supports 10th generation Intel processors with the LGA 1200 socket. It takes full advantage of the PCIe 3.0 data bandwidth to deliver high performance for tasks such 3D rendering, video editing, and more.

Description

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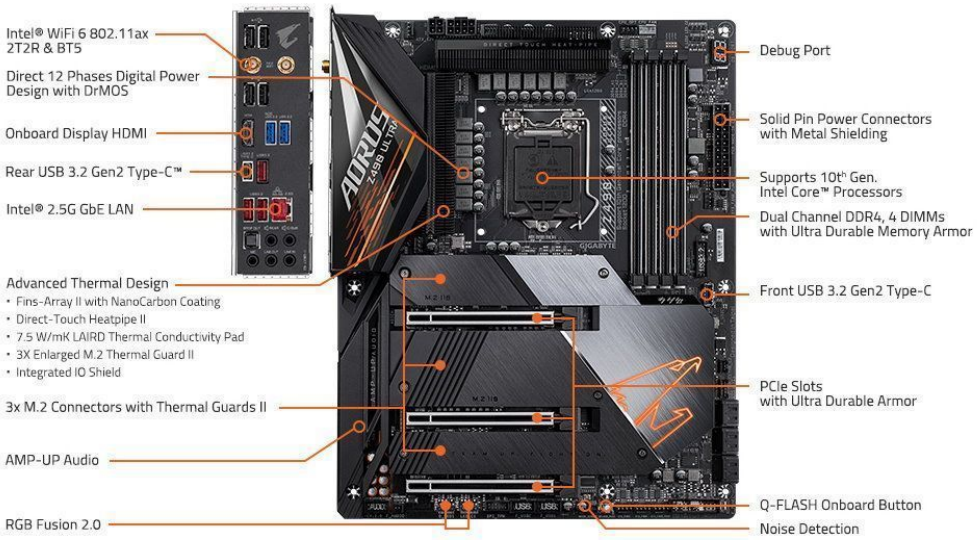
Z490 AORUS ULTRA

- Supports 10th Generation Intel Core Processors
- Direct 12 Phase Digital VRMs with 50A DrMOS Power Stages + Tantalum Poylmer Capacitors Array
- Nanocarbon Coated Next Generation Fins Array and Direct Touch Heatpipe VRM Cooling
- Xtreme Memory Design Dual Channel DDR4 (4x DIMM slots)
- 3x M.2 AORUS Next GenThermal Guard
- Intel 2.5 GbE LAN
- Intel WiFi 6 and Bluetooth 5.0 2x2 with High Gain Antenna
- Q Flash Plus

AORUS

Team Up. Fight On.
AORUS, a premium gaming brand powered by GIGABYTE, delivers a full spectrum of gaming products ranging from gaming laptops, motherboards, graphics cards, mechanical gaming keyboards, to many other gaming hardware and gears, offering the most extreme gaming experiences for enthusiasts worldwide.

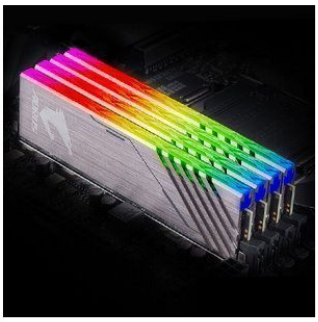
SPEC OVERVIEW



FEATURES

Thermal Reactive Armor

The comprehensive solution delivers excellent heat dissipation. The Z490 AORUS ULTRA stays cool on VRMs and M.2 SSD even on full loading, making it most suitable for enthusiasts, overclockers and professional gamers.



Shielded Memory Routing

AORUS Z490 motherboards have upgraded its compatibility with faster memory profiles. AORUS motherboards also utilize a new shielded memory design that minimizes noise and electrical interference.

Unparalleled Performance

Enjoy smooth video streaming, better gaming experience, and fewer dropped connections with Intel WIFI 6 and Intel 2.5 GbE LAN.

The USB 3.2 Gen 2 Type-A and Type-C ports allow you to transfer data from compatible peripherals at up to 10 Gb/s. Enjoy fast network connections using the 2.5 Gigabit Ethernet port and built-in 802.11ax Wi-fi, which can wirelessly transfer data at up to 2.4 Gb/s with compatible devices. The Z490 AORUS ULTRA also delivers vibrant DTS:X Ultra 7.1-channel surround sound Realtek ALC1220-VB audio codec. You can customize your computing experience using the addressable RGB headers to connect light strips, which can be synced with other Gigabyte RGB Fusion 2.0-compatible peripherals such as mice and keyboards using the desktop software or mobile app. Windows 10 64-bit is required to take advantage of all the motherboard's features.

Features

Enhanced Cooling

- The Gigabyte Fins-Array II heatsink, extra-large heatpipe, and thick thermal pad work to deliver lower MOSFET temperatures.
- A NanoCarbon is coated onto the heatsink through electrostatic adhesion to enhance thermal radiation.
- Double-sided thermal guards help to quickly dissipate heat from the M.2 solid-state drives to avoid speed throttling.
- Smart Fan 5 allows users to interchange fan headers to correspond with the thermal sensors located across the motherboard so that the system stays cool while maintaining a high level of performance for games and other demanding applications.
- Fan Stop lets you to take control of your computer's noise level by allowing specified fans to halt when the system drops to a designated temperature level. These settings may be customized according to your preferences.
- Hybrid Fan Headers automatically detect the connected liquid- or air-cooling systems, enabling Smart Fan 5 to monitor information such as flow-rate.

Storage and Memory

- Three M.2 slots are available, supporting up to type 22110 SATA and PCIe NVMe SSDs.
- Six SATA III headers are available for hard drives and 2.5" SSDs.
- RAID 0, 1, 5, and 10 configurations are supported.
- Intel Optane memory modules are supported, which enhance mechanical disk drives by caching frequently accessed data.
- Up to 128GB of dual-channel DDR4-5000 (OC) memory can be installed across four slots.

Designed for Durability

- A stainless steel shield reinforces the PCIe connectors, providing extra strength to support heavy graphics cards.
- The memory slots include stainless-steel shielding, which is designed to prevent bending, twisting, and distortion in addition to protecting against possible electrostatic interference.
- Solid plated ATX 24-pin and 8-pin power connectors deliver a stable power supply to key components.
- With the Q-Flash Plus feature, you can update the BIOS without having to install a CPU or video card. Simply copy the new BIOS file to a USB flash drive, insert it into the designated port, then press the Q-Flash button.

Performance Features

- The Z490 AORUS ULTRA features a digital PWM controller and DrMOS with 12+1 power stages that can handle up to 660A of current total.
- A double copper layer PCB design efficiently delivers power to critical components at lower temperatures.

NVIDIA SLI / AMD CrossFireX Support

Installing multiple graphics cards will enhance the computer's performance for demanding tasks such as CAD, 3D rendering, video editing, and more. This motherboard supports Quad-GPU and 2-Way NVIDIA SLI and AMD CrossFireX configurations.

Immersive Audio

- The Realtek ALC1220-VB audio codec provides vibrant 7.1-channel surround sound to your speakers.
- 120 dBA headphone SNR.
- 110 dBA microphone SNR.
- High-grade capacitors are used for feedback signal processing.
- The DTS:X Ultra codec realistically recreates spatial audio experiences for games using almost any headphone of speaker set.

Network Performance

- The 2.5 Gigabit Ethernet port provides a fast network connection with high-speed data transfers using compatible devices.
- Built-in 802.11ax dual-band Wi-Fi transfers up to 2.4 Gb/s of data over compatible wireless networks.
- The cFosSpeed network traffic management application to automatically allocate bandwidth so that the highest network priority goes to games or specified applications.
- Bluetooth 5 offers a faster transmission rate and 4X the range of Bluetooth 4.2.

USB 3.2 Gen 2

Doubling the speed of its predecessor, USB 3.2 Gen 2 features a maximum throughput of 10 Gb/s when used with compatible devices.

RGB Fusion 2.0 Lighting

With Gigabyte's RGB Fusion 2.0 technology, you can customize your computer by installing RGB lighting strips alongside compatible components and peripherals for incredible effects. Lighting profiles that cover your entire system, including the motherboard, video card, and CPU can be configured and controlled using the Gigabyte RGB Fusion 2.0 desktop software or mobile app.

Specifications

Gigabyte Z490 AORUS ULTRA Specs

CPU

Chipset	Intel Z490
CPU Socket	LGA 1200

Back Panel I/O

USB	1 x USB 3.1 / USB 3.2 Gen 2 Type-C 3 x USB 3.1 / USB 3.2 Gen 2 Type-A 2 x USB 3.1 / USB 3.2 Gen 1 Type-A 4 x USB 2.0 Type-A
Thunderbolt	*None*
Display	1 x HDMI 1.4
Audio	5 x 3.5 mm 1 x S/PDIF
Ethernet / Controller	1 x Intel 2.5Gigabit
Wi-Fi Antenna	2 x Connector

Memory

Memory Slots	4 x 288-Pin
Memory Support	DDR4 2133, 2400, 2666, 2800, 2933, 3000, 3200, 3300, 3333, 3400, 3466, 3600, 3666, 3733, 3800, 3866, 4000, 4133, 4266, 4300, 4400, 4500, 4600, 4700, 4800, 4933, 5000 MHz
Maximum Capacity	128 GB
Channel Architecture	Dual Channel
ECC Support	Non-ECC, ECC (Non-ECC Mode) Unbuffered

Storage Expansion

SATA	6 x SATA III
M.2	2 x M Key 2242, 2260, 2280, 22110 (PCIe 3.0 x2, PCIe 3.0 x4, SATA (Unspecified)) 1 x M Key 2242, 2260, 2280, 22110 (PCIe 3.0 x2, PCIe 3.0 x4)
U.2	*None*
Optane Memory Support	Yes
RAID Support	RAID 0, 1, 5, 10

Internal I/O

Expansion Slots	1 x PCIe 3.0 x16 (x16 mode) 1 x PCIe 3.0 x16 (x8 mode) 1 x PCIe 3.0 x16 (x4 mode) 2 x PCIe 3.0 x1
USB	1 x USB 3.1 / USB 3.2 Gen 2 Header (Supports 1 USB Type-C Port) 1 x USB 3.1 / USB 3.2 Gen 1 Header (Supports 2 USB Type-A Port) 2 x USB 2.0 Header (Supports 4 USB Type-A Port)
Multi-GPU Support	2-Way, Quad-GPU NVIDIA SLI 2-Way, Quad-GPU AMD CrossFireX
Air Cooling	1 x 4-Pin CPU 4 x 4-Pin System 2 x 4-Pin Assistant 1 x Noise Sensor 2 x Thermal Sensor 1 x Noise Sensor
Liquid Cooling	1 x 4-Pin Pump
Power Connectors	1 x 24-Pin Mainboard 1 x 8-Pin ATX 1 x 4-Pin ATX
Security	TPM Module
LED Header	4 x RGB
Audio	1 x Speaker
Diagnostics	Clear CMOS, Flash BIOS
Add-On	2 x Thunderbolt Card Header

BIOS

ROM	256 Mb

Front Panel I/O

I/O Connection Headers	AAFP, USB 3.1 / USB 3.2 Gen 1, USB 3.1 / USB 3.2 Gen 2

Audio

Audio Codec	Realtek ALC1220-VB (7.1-Channel)

Wireless

Bluetooth	5.0
Wi-Fi	Wi-Fi 6 (802.11ax) (MU-MIMO)

Software

Supported Operating Systems	Windows 10 (64-Bit)

Physical

Form Factor	ATX

Dimensions	12.01 x 9.61" / 30.5 x 24.4 cm

Packaging Info

Package Weight	4.79 lb
Box Dimensions (LxWxH)	13.7 x 11.6 x 3.4"

Additional Information

Brand	Gigabyte
SKU	Z490-AORUS-ULTRA
Weight	9.0000
Processor Manufacturer	Intel
Chipset	Z490
Vendor SKU/EAN	889523021415