



# Gigabyte Z490M Gaming X LGA 1200 Micro-ATX Motherboard

\$179.95

## Product Images





## Short Description

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Connect compatible peripherals to the USB 3.2 Gen 2 Type-A and Type-C ports to transfer data at up to 10 Gb/s. The Z490M GAMING X also features a cFosSpeed-optimized Gigabit Ethernet port and delivers deep and immersive 7.1-channel surround sound through the Realtek ALC1200 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

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### Storage and Memory

- One M.2 slot is available, supporting up to type 22110 SATA and PCIe NVMe SSD.
- 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 DDR4-4400 (OC) memory can be installed across four slots.

### Enhanced Cooling

- A large, specially designed grooved heatsink, optimizes airflow.
- The thick thermal pad work to deliver lower MOSFET temperatures.
- 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.

## Electrical Performance

The Z490M GAMING X features a 11+1 phase digital VRM solution with a Low RDS(on) MOSFET that is designed to efficiently deliver power to critical components while ensuring stability under heavy loads.

## PCIe 4.0 Hardware Design

This motherboard includes a PCIe 4.0-grade hardware design to maximize memory bandwidth for cutting-edge devices.

## Designed for Durability

- Gigabyte's double locking brackets keep PCIe slots securely affixed to the motherboard.
- 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.
- This motherboard features resistors with an anti-sulfur layer that help prevent sulfur compounds in the air from causing electrical malfunctions.
- An integrated I/O shield makes the motherboard installation process easier.
- 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.

## 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 AMD CrossFireX configurations.

## Immersive Audio

- The Realtek ALC1200 audio codec provides vibrant 7.1-channel surround sound.
- High-quality, durable capacitors help to deliver clear sound to audio equipment.
- A noise guard separates sensitive audio components from areas that may cause distortion and noise.

## Network Performance

- The Gigabit Ethernet port provides a fast network connection with high-speed data transfers using compatible devices.
- The cFosSpeed network traffic management application to automatically allocate bandwidth so that the highest network priority goes to games or specified applications.

## 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

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### Gigabyte Z490 M GAMING X 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  
1 x USB 3.1 / USB 3.2 Gen 2 Type-A  
4 x USB 3.1 / USB 3.2 Gen 1 Type-A

Thunderbolt *None*

Display 1 x HDMI 1.4  
1 x DisplayPort 1.4

Audio 6 x 3.5 mm

Ethernet / Controller 1 x Intel Gigabit

PS/2 1 x PS/2

#### Memory

Memory Slots 4 x 288-Pin

Memory Support DDR4 2666, 2800, 2933, 3000, 3200, 3300, 3333, 3400, 3466, 3600, 3666, 3733, 3800, 3866, 4000, 4133, 4266, 4300, 4400 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	1 x M Key 2242, 2260, 2280, 22110 (PCIe 3.0 x2, PCIe 3.0 x4, SATA (Unspecified))
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 1 x PCIe 3.0 x4 1 x PCIe 3.0 x1
USB	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 AMD CrossFireX
Air Cooling	1 x 4-Pin CPU 3 x 4-Pin System
Power Connectors	1 x 24-Pin Mainboard 1 x 4-Pin ATX 1 x 8-Pin ATX
Security	TPM Module
LED Header	4 x RGB
Audio	1 x Speaker 1 x S/PDIF
Diagnostics	Clear CMOS, Flash BIOS
Add-On	2 x Thunderbolt Card Header
Legacy	1 x Serial
BIOS	
ROM	256 Mb
Front Panel I/O	
I/O Connection Headers	AAFP, USB 3.1 / USB 3.2 Gen 1
Audio	
Audio Codec	Realtek ALC1200 (7.1-Channel)
Software	
Supported Operating Systems	Windows 10 (64-Bit)
Physical	
Form Factor	Micro-ATX

Dimensions 9.61 x 9.61" / 24.4 x 24.4 cm

#### Packaging Info

Package Weight 2.835 lb

Box Dimensions (LxWxH) 10.8 x 10.6 x 2.8"

## Additional Information

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Brand	Gigabyte
SKU	Z490MGAMINGX
Weight	5.0000
Processor Manufacturer	Intel
Chipset	Z490

