



# ASUS Republic of Gamers Strix Z490-G Gaming Wi-Fi LGA 1200 Micro-ATX Motherboard

\$249.95

## Product Images







and immersive 7.1-channel surround sound through the SupremeFX S1220A audio codec. You can customize your computing experience using the addressable RGB headers to connect light strips, which can be synced with other Aura Sync-compatible peripherals such as mice and keyboards. Windows 10 64-bit is required to take advantage of all the motherboard's features.





### POWER DESIGN

Digital power control and an array of DrMOS power stages ensure ROG Strix Z490-H Gaming has the muscle to control the latest Intel CPUs.

1. PROCOOL II POWER CONNECTOR
2. 12+2 POWER STAGES
3. ALLOY CHOKE & CAPACITOR



### COOLER BY DESIGN

ROG Strix Z490 series features the most comprehensive cooling options ever, configurable via Fan Xpert 4 or the UEFI BIOS.

- CPU Fan Header
- AIO Pump Fan Header
- M.2 Heatsink
- M.2 Fan Header
- 4-pin PWM/DC Fan Header
- VRM Heatsink
- Thermal pad



### Dual PCIe 3.0 M.2

Two M.2 slots are available, with one supporting both SATA and PCIe 3.0 x4 modes, and the other supporting PCIe 3.0 x4 for NVMe. Together, they give you the fastest and most-flexible M.2 interface available.



### M.2 SOCKET WITH E KEY

Integrated with Intel Wireless AC/AX technology, M.2 supports CNVi/PCIe/USB mode to build a faster and more cost-effective WiFi and Bluetooth 5.1 solution. \*\*Bluetooth 5.1 will be ready in Windows 10 build 19041 or later



### SONIC STUDIO III

Sonic Studio supports HRTF-based (head-related transfer function) virtual surround for VR headsets, casting an immersive aural landscape that draws you deeper into the action. The intuitive Sonic Studio interface also offers a range of EQ options and one-click presets, allowing you to tailor acoustics to suit personal preferences or the characteristics of your headset



### UNDENIABLY ROG STRIX

A glowing red ROG logo and onboard I/O shroud with cyber-text markings sets ROG Strix Z490-H Gaming apart from its brethren. The PCB and heatsink feature contrasting brushed and rough-textured finishes for a premium look and feel.



### ROG AI OVERCLOCKING

ROG AI Overclocking is an intelligent utility that helps you get the most out of your build by automatically profiling your CPU and cooling system to predict optimal voltage and frequency settings

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. Other features include a fast 2.5 Gigabit Ethernet port and a slot to install an M.2 Wi-Fi module. The ROG Strix Z490-H Gaming also delivers deep and immersive 7.1-channel surround sound through the SupremeFX S1220A audio codec. You can customize your computing experience using the addressable RGB headers to connect light strips, which can be synced with other Aura Sync-compatible peripherals such as mice and keyboards. Windows 10 64-bit is required to take advantage of all the motherboard's features.

## Features

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### Storage and Memory

- Two PCIe 4.0 M.2 slots are available, supporting up to type 22110 SATA and NVMe SSDs.
- Six SATA III ports are available for hard drives and 2.5" SSDs.
- Supports RAID 0, 1, 5, and 10.
- Intel Optane modules are supported, which enhance mechanical disk drives by caching frequently accessed data.
- Up to 128GB of dual-channel DDR4-4600 (OC) memory can be installed across four slots.
- The RAMCache III utility can automatically caches all your storage devices so that games and apps load faster.
- OptiMem II technology enhances memory stability and compatibility.

### Performance Features

- The ROG Strix Z490-G Gaming Wi-Fi includes 12+2 power stages to efficiently deliver power to the processor and other critical components.
- The Digi+ voltage-regulator module (VRM) helps to ensure smooth and clean power delivery. It also allows for direct control over voltages, the switching frequency, and power-efficiency settings to fine-tune the CPU voltage regulation for stability and performance.
- Quality chokes and durable capacitors help to deliver strong electrical performance.
- The TurboV Processing Unit (TPU) onboard micro-controller that helps to provide a variety of system-tuning features. It can be used to fine-tune voltages, monitor system stats, and adjust overclocking parameters.
- The Energy Processing Unit (EPU) optimizes power consumption to maximize savings in Away mode, which shuts down I/O controllers.
- Turbo App utility allows you to customize the computer system's performance for individual applications.

### Enhanced Cooling

- The MOS heatsink and thermal pad help to efficiently transfer heat away from the motherboard's electrical systems.
- The M.2 slots are covered by a large heatsink to help prevent speed throttling when the SSDs become too hot.
- Artificial intelligence monitors system temperatures and loads to automatically set fan speeds, which

optimizes cooling while keeping noise to a minimum.

- Fan Xpert 4: Manually or automatically control the speed of your fans to find a balance of cooling performance and noise. Extreme Quiet mode reduces fan speeds to below the default minimum to keep your system quiet during light tasks.

## AMD CrossFireX Support

Installing multiple graphics cards will enhance the computer's performance for demanding tasks such as gaming, video editing, and more. This motherboard supports a 2-way AMD CrossFireX configuration.

## Networking Performance

- A 2.5 Gigabit Ethernet port provides a fast wired connection with compatible devices.
- The built-in 802.11ax Wi-Fi can transfer data at up to 2.4 Gb/s over compatible wireless networks.
- LANGuard technology improves the tradition Ethernet port by protecting it against surges, providing a cleaner data signal, and reducing the chance of errors without taking up CPU resources.
- The GameFirst VI network customization tool for ROG routers uses AI-enhanced features that allow you to analyze, optimize, and boost network data traffic to help ensure stability with minimal interference.

## 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.

## Upgrade-Friendly

- The pre-mounted I/O shield streamlines the motherboard installation process.
- With the BIOS FlashBack feature, the BIOS can be updated by copying the BIOS file onto a FAT32-formatted USB stick, inserting it into the designated port, and pressing the FlashBack button. Updates may be performed without a CPU or memory installed.
- SafeSlot technology reinforces the PCIe slots to provide strong device retention and shearing resistance.
- Q-LED: Onboard LED lights indicate the power status and problems with the CPU, memory, graphics card, or boot device.
- The ROG AI Overclocking utility helps you get the most out of your build by automatically profiling your CPU and cooling system to predict optimal voltage and frequency settings.

## SupremeFX Audio

- The integrated SupremeFX S1220A audio technology is designed to deliver a flat frequency response for detailed sound with 7.1-channel playback.
- 32-Bit / 192 kHz playback support.
- 120 dB stereo output signal-to-noise ratio.
- 113 dB input signal-to-noise ratio.
- Electromagnetic shielding protects against interference from nearby components for cleaner-sounding audio.
- Two onboard amplifiers push sound out to your headphones or speakers with a 32-600 ohms impedance.
- Nichicon capacitors are designed to produce a warm, natural sound with high clarity.
- Gold plated audio jacks enhance audio quality and performance

- Audio jacks are LED illuminated to make them easier to find in darkened spaces.
- The Sonic Studio III software allows you to customize EQ profiles across different audio devices and applications.
- The DTS: Sound Unbound app works with Windows Sonic technology to deliver spatial sound to headsets, immersing you into virtual environments and entertainment.

## Aura Sync RGB Lighting

Aura Sync technology allows you to connect, customize, and control lighting equipment such as RGB LEDs and light strips on the onboard RGB headers. You can choose from a variety of lighting presets that include Static, Strobing, and Color Cycle. These presets can be synchronized with Aura Sync-compatible peripherals such as keyboards, mice, monitors, and more. The addressable Gen 2 RGB headers can detect the number of LEDs on a compatible device and control them individually to further tailor the lighting effects.

## Armoury Crate

ASUS Armoury Crate is a suite of management software for system customization. It includes ASUS Aura Sync RGB lighting control, keyboard and mouse preferences, fan speed control, and more.

## Specifications

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### ASUS Z490-G 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-A 1 x USB 3.1 / USB 3.2 Gen 2 Type-C 4 x USB 3.1 / USB 3.2 Gen 1 Type-A 2 x USB 2.0 Type-A
Thunderbolt	None
Display	1 x DisplayPort 1.4Output 1 x HDMI 1.4bOutput
Audio	5 x 3.5 mm 1 x S/PDIF
Ethernet / Controller	1 x Intel I225-V 2.5Gigabit
Wi-Fi Antenna	2 x Connector
Buttons	BIOS Flashback
Memory	



Memory Slots	4 x 288-Pin
Memory Support	DDR4 2133, 2400, 2666, 2800, 2933, 3000, 3200, 3333, 3400, 3466, 3600, 3733, 3866, 4000, 4133, 4266, 4400, 4500, 4600 MHz
Maximum Capacity	128 GB
Channel Architecture	Dual Channel
ECC Support	Non-ECC Unbuffered
Storage Expansion	
SATA	6 x SATA III
M.2	1 x M Key 2242, 2260, 2280, 22110 (PCIe 3.0 x4) 1 x M Key 2242, 2260, 2280 (PCIe 3.0 x4, SATA (Unspecified))
U.2	<i>None</i>
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 x4 (x2 mode) 1 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 AMD CrossFireX
Air Cooling	1 x 4-Pin CPU 2 x 4-Pin Assistant 2 x 4-Pin System 1 x Thermal 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	Chassis Intrusion
LED Header	4 x RGB
Diagnostics	Clear CMOS, CPU Overclock, Flash BIOS
BIOS	
ROM	192 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    SupremeFX S1220A (7.1-Channel)

Wireless

Bluetooth        5.1

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

Module Support   1 E Key M.2

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        3.775 lb

Box Dimensions (LxWxH)    11.1 x 10.5 x 2.9"

Additional Information

Brand	ASUS
SKU	ROG STRIX Z490-G GAMING(WI-FI)
Weight	9.0000
Processor Manufacturer	Intel
Chipset	Z490

