



ASUS TUF GAMING Z890- PLUS WIFI Intel Z890 LGA 1851 (Socket V1) ATX

Model: 90MB1IQ0-M0EAY0

Manufacturer: ASUS

EAN: 4711387763926

Product Code: 805481

R5,954

ASUS TUF GAMING Z890-PLUS WIFI takes all the essential elements of the latest Intel® Core™ Ultra Processors (Series 2) processors and combines them with game-ready features and proven durability. Engineered with military-grade components, an upgraded power solution and a comprehensive cooling system, this motherboard goes beyond expectations with rock-solid and stable performance for marathon gaming. TUF GAMING motherboards also undergo rigorous endurance testing to ensure that they can handle conditions where others may fail. This platform delivers the power and connectivity that advanced AI PC applications demand.

Intelligent

Complete AI Solution

ASUS AI Solutions – including AI Advisor, AI Cooling II for thermal control and AI Networking II for real-time bandwidth optimization – offer smart assistance, efficient cooling and new levels of

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ultrafast connectivity.

AI Advisor

An ASUS technical expert that's always available to answer your questions.

* Availability of ASUS AI Advisor may vary by region.

AI Cooling II

Optimized thermals, and reduced noise via dynamic adjustment of fan speeds, based on CPU temperatures.

AI Networking II

Optimized network performance, helping to ensure seamless connectivity and maximized WiFi 7 speeds.

Intelligent

Overclocking

NPU Boost

The integrated NPU in Intel® Core™ Ultra Processors (Series 2) efficiently accelerates AI workflows — and NPU Boost lets you do more with it. This BIOS feature overlocks the NPU with just one click, increasing performance by up to 24%.

* This feature only supports Intel K series processors

** The overclocking performance may vary depending on the CPU series and motherboard used.

*** Testing was conducted with an Intel Arrow Lake QS Q2HA Ultra 9 285K processor, ROG Maximus Z890 Extreme motherboard, GeForce RTX™ 4090 24GB graphics card, and XPG Lancer DDR5 memory modules (model AX5U6000C4016G).

Intelligent

Intelligent Control

UEFI BIOS

The UEFI interface delivers easy-to-use configuration options for PC beginners, and advanced features for veterans.

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UEFI BIOS

The renowned ASUS UEFI BIOS provides everything you need to configure, tweak and tune your system. It offers intelligently simplified options for PC DIY beginners and comprehensive features for seasoned veterans.

BIOS Q-Dashboard

Simplify your motherboard configuration with BIOS Q-Dashboard. Its intuitive visual representation of hardware connections and corresponding BIOS settings takes the complexity out of setting up your system. Upgrade now, and discover the power of BIOS Q-Dashboard to easily and efficiently enhance your computing setup.

TurboV Core

TurboV Core is engineered for overclocking enthusiasts to elevate system capability with unprecedented simplicity. Accessed via ASUS DriverHub, TurboV Core provides intuitive configuration of CPU and DRAM parameters to unlock your computer's potential. No need to enter the BIOS, you can seamlessly modify settings directly from the Windows interface, and apply them right away without restart interruptions.

ASUS DriverHub

Simplify driver management with automatic detection, one-click installation and update for smooth, efficient system performance.

ASUS GlideX

Enable seamless screen sharing and control across PCs, tablets, and smartphones via USB or WiFi, supporting multiple platforms.

Power Saving

Provides easy-to-use configuration options for PC beginners and advanced features for veterans.

Armoury Crate

Customize Aura Sync RGB and control ASUS devices. Includes product registration and updates.

Performance

Premium Power Design

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Stable power is crucial for maximizing the performance of Intel processors. The motherboard is designed to meet the needs of high-core-count CPUs. It features 16(80A) + 1(80A) + 2(80A) + 1(80A) power stages that integrate high-side and low-side MOSFETs and drivers into packages rated for up to 80A each. This configuration ensures optimal power delivery, efficiency, stability and performance for both current and future Intel processors.

Eight Layered PCB design

Enhanced stability and overclocking.

ProCool Power Connectors

Proprietary 8+8 pin connectors improve PSU connection.

TUF Components

TUF chokes and capacitors offer rock-solid durability and stability.

Digi+VRM Control

Real-time voltage control.

Performance

Memory & Storage

DRAM Overclocking Performance

Comprehensive memory tuning options are the cornerstone of TUF GAMING motherboards. With the motherboard, you can extract all the potential out of your DDR5 modules*, whether they're from an extreme-speed kit or an entry-level set that would otherwise be locked.

* Memory overclocking may vary between CPU series. Please refer to the spec table for detailed information.

AEMP III

ASUS Enhanced Memory Profile III (AEMP III) is an advanced firmware feature that empowers users to achieve unparalleled memory performance with cutting-edge CUDIMM memory. Through a two-phase comprehensive tuning process, AEMP III first optimizes the clock driver and then the memory frequency. This results in the best balance between performance and stability, even at cutting-edge speeds of DDR5-8000 or higher.*

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*Results may vary according to individual system specifications. Currently, only 2-DIMM configurations are supported. Results are based on a test with an Intel Core Ultra 9 285K processor and 2x16GB SK Hynix DDR5-6400 Clocked Unbuffered DIMM RAM, model HMCG78AHBCA326N.

DIMM Fit

DIMM Fit is an ASUS-exclusive BIOS feature that precisely analyzes individual memory modules to optimize performance and pinpoint potential issues. This offers peak efficiency, compatibility, and system stability.

Whether you are an overclocker seeking ultimate performance, a competitor pursuing the most responsive gameplay, or a content creator prioritizing rock-solid stability, DIMM Fit provides optimizations tailored to your needs and your hardware configuration.

M.2 PCIe 5.0 Support

This motherboard also features one PCIe 5.0 M.2 slots to enjoy the fastest data transfers of up to 128 Gbps*, and all M.2 slots support NVMe RAID configurations to take advantage of the latest available speeds.

Cooling

Cooler by Design

Cooling

Cooler Compatibility

ASUS AIO coolers offer robust performance, high overclocking potential, bold aesthetics and customizable functionality for new TUF Gaming motherboards, empowering you to build your dream gaming rig.

Connectivity

Empowering Connection

This motherboard offers a versatile range of connectivity with PCIe 5.0, Thunderbolt™ 4 and front USB 20Gbps Type-C® connectors.

PCIe 5.0 for Graphics Card

PCIe 5.0 offers twice the data transfer speed of PCIe 4.0, making it robust enough to handle new data-heavy tasks. PCIe 5.0 also brings other benefits, such as electrical changes to improve signal

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integrity, backward-compatible CEM connectors for add-in cards and backward compatibility with previous versions of the PCIe bus.

Thunderbolt™ 4 Support

Each port delivers up to 40Gbps of bi-directional bandwidth for the latest super-speed devices and drives. Both ports can be employed for up to two external 4K displays.

Front USB 20Gbps Type-C®

This motherboard features a USB 20Gbps Type-C® front panel connector for speedy data transfers of up to 20Gbps.

DIY

Easy PC DIY

PCIe Slot Q-Release

A physical button unlocks the first PCIe slot's security latch with one tap, greatly simplifying the process of detaching a PCIe card from the motherboard when it's time to upgrade to a new GPU or other compatible device.

M.2 Q-Release

The M.2 heatsink features a convenient switch* to quickly remove it, eliminating the need for tiny screws during SSD installation. Its strong locking mechanism also provides a snug contact surface, helping to ensure reliable heat dissipation for your SSD.

*Switch may be a lever or button, depending on motherboard model.

M.2 Q-Slide

This new sliding M.2 latch design supports sizes 2242 and 2260 for easy device installation.

M.2 Q-Latch

The innovative ASUS Q-Latch makes it easy to install or remove an M.2 SSD without the need for specific tools or screws. This design employs a simple locking mechanism to secure the drive and neatly detach it with one tap.

Q-Antenna

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With Q-Antenna, attaching a WiFi antenna to your PC is now easy and fast. Instead of slowly rotating two fasteners until they finally lock in, they just snap into place. Less hassle, and more consistent performance.

BIOS FlashBack™

BIOS FlashBack™ simplifies BIOS updates. Just load the BIOS file onto a FAT32 USB stick, insert it into the BIOS FlashBack™ port, and press a button—no CPU or memory needed.

DIY

Protection

DIY

Build With Confidence

TUF GAMING Alliance is a collaboration between ASUS and trusted PC component brands to ensure compatibility across a wide range of parts, such as PC cases, power supplies, CPU coolers, memory kits and more. With new partnerships and components being added regularly, the TUF GAMING Alliance will continue to grow even stronger.

Gaming

Ultrafast Networking

Provide a feature-packed high-performance gaming package, with ultrafast networking for smoother online gameplay.

Intel® 2.5Gb Ethernet

On-board Intel® 2.5Gb Ethernet kicks your LAN connection up a notch by improving bandwidth speeds up to 2.5X faster than 1Gb connections.

WiFi 7

WiFi 7 ensures stable connections and low latency.

ASUS WiFi Q-Antenna

ASUS WiFi Q-Antenna delivers up to 18% stronger wireless signal reception compared to the previous generation.

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Audio

Realtek 7.1 Channel Audio

ALC1220P

This motherboard utilizes an audio codec designed in close collaboration with Realtek — the Realtek ALC1220P. It features an unprecedented 120 dB signal-to-noise (SNR) ratio for the stereo line out and a 113 dB SNR for the line in, providing pristine audio quality. Additionally, an impedance-sensing circuit automatically adjusts gain to ensure an optimal volume range for your headphones.

DTS Audio Processing

DTS® Audio Processing enhances gaming headset and speaker audio experiences by reducing distortion and by providing deeper bass, so games, movies and music sound better. It also allows you to customize audio settings.

Lighting

Outshine The Competition

ASUS Aura Sync offers synchronized lighting with other Aura Sync products, including motherboards, graphics cards, monitors and peripherals.

Addressable Gen2 RGB Headers

Automatically optimize lighting effects for the number of LEDs present in compatible ARGB gear.

In Search of Sustainable Solution

ASUS is on a mission to create a sustainable future where all can flourish on the planet we call home.

Every step counts, and as part of ASUS's commitment to creating a more sustainable future, ASUS has begun to utilize post-consumer recycled (PCR) plastic and paper materials certified by the Forest Stewardship Council (FSC™) in the packaging of motherboard.

Join us on our journey as we make the world a better place.

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