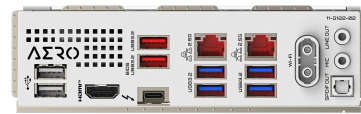
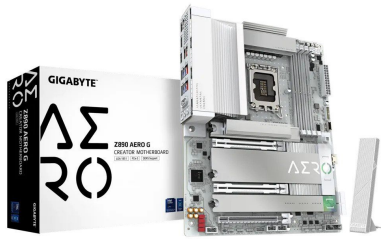


MB-GZ890AG+W

Gigabyte Z890 Aero G +WiFi DDR5 Z890 Express Chipset Core Ultra Series 2 LGA 1851 ATX Motherboard with WiFi

Product Overview

Gigabyte Z890 Aero G +WiFi DDR5: LGA 1851, DDR5-9200 (OC) 256GB max, PCIe 5.0 x16, 4.0 x4, 4x M.2 PCIe 4.0 x4, WiFi 7, 2.5GbE LAN, USB 3.2 Gen 2x2 Type-C, HDMI, DP.



Specifications

Features:

- Supports Intel Core Ultra processors (Series 2)
- VisionLINK/TB: One USB-C® Port for Video, Data Transfer and Charging
- Ultimate Scalability: 2*PCIe x16 slots for Multi-GPU
- Extended Connectivity: THUNDERBOLT™ 4 Type-C® with DP-Alt, HDMI
- Ultra-Fast Storage: 5*M.2 slots, including 1* PCIe 5.0 x4
- Blazing Fast Networks: Dual 2.5 GbE LAN and Wi-Fi 7 with directional Ultra-high gain antenna
- Digital twin 16+1+2 phases VRM solution
- WIFI EZ-Plug: Quick and easy design for Wi-Fi antenna installation
- EZ-Latch Plus: PCIe and M.2 slots with Quick Release & Screwless Design
- EZ-Latch Click: M.2 heatsinks with screwless design
- Sensor Panel Link: Onboard video port for hassle-free in-chassis panel setup
- Friendly UI: Multi-Theme, AIO Fan Control, and Q-Flash Auto Scan in BIOS and SW
- D5 Bionic Corsa for Infinite Memory Performance
- AI Perfdribe: Provides optimal and customized BIOS preset profile for users
- Premium Compatibility : 4*DDR5 with XMP Memory Module Support
- Efficient Thermal: VRM Thermal Armor Advanced & M.2 Thermal Guard L
- High-Res Audio: ALC1220 & WIMA Audiophile Grade Capacitors
- PCIe UD Slot X: PCIe 5.0 x16 slot with 10X strength for graphics card
- Ultra Durable PCIe Armor: The metal back plate of PCIe x16 slot for enhanced durability

CREATIVITY STARTS HERE

AERO series motherboards present an innovative design for content creators to handle demanding creative tasks like 3D rendering and long-form video editing.

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Product Specification Sheet

- Superior Connectivity
- Expandable Graphics
- Ultra-fast Storage

VisionLink/ TB

Connected to GIGABYTE VisionLINK/ TB port, you can transfer data, video and power charging via a single USB Type-C® cable.

VisionLINK TB, Your Thunderbolt™ 4

GIGABYTE VisionLINK TB is based on Thunderbolt™ 4, delivers 40Gb/s high-bandwidth speeds, data, video, 60W power, and USB4™ compliance devices with the simplicity of just one cable to make your work better than ever.

DisplayPort™ Alternate Mode with USB Power Delivery.

VisionLink/ TB comes with data transfer capabilities, DisplayPort Alternate Mode for video, and 60W of power for device charging.

USB Power Delivery

With the design of USB Power Delivery(PD) Profile 4 and goes up to 60W specific. It is a specification for handling higher power and allows a range of devices to fast charge over a USB connection.

DisplayPort™ Alternate Mode

Alternate mode is the feature in USB Type-C® allowing for standard USB Type-C® connectors to carry both USB signal and non USB data like video signal.

One Port For All.

Thunderbolt™ 4 Compatible USB4

The Thunderbolt™ 4 Compatible USB4 port delivers ultra-fast 40Gb/s data transfer, DisplayPort 1.4a support, connectivity for up to 5 devices including multiple 4K/8K displays, and power delivery.

Dual PCIe x 16 slots for Multi-GPU

Dual PCIe 5.0 x16 slots (run x16, x8) to deliver premium graphics performance for superior rendering capabilities, more immersive gaming experience, and AI trainings.

5X M.2 Slots Fast Storage

With four onboard PCIe 5.0/ 4.0 M.2 slots, Z890 AERO G is perfect for creators, enthusiasts, AI operation to RAID multiple NVMe devices for demanding workloads

Wi-Fi 7 brings you the Ultimate VR experience

Wi-Fi 7 transforms the VR landscape with its exceptional bandwidth and minimal latency, delivering an unparalleled, seamless immersive VR experience.

160 MHz channels

Wi-Fi 7 introduces support for expansive 160 MHz channels, dramatically increasing bandwidth for unprecedented data transfer speeds.

4K-QAM

Leveraging 4K-QAM technology, Wi-Fi 7 elevates data throughput, enabling lightning-fast file transfers and buffer-free streaming.

Multi-link Operation

Wi-Fi 7's MLO (Multi-Link Operation) technology allows strategic bandwidth allocation - dedicating 2.4GHz for streaming and 5/6GHz for gaming, resulting in a superior and interruption-free network experience.

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Deterministic low latency

With its deterministic low latency, Wi-Fi 7 minimizes delays, making it the best choice for time-sensitive applications such as video conferencing and competitive online gaming.

GIGABYTE Directional Ultra-high Gain Antenna

Boost your signal strength with GIGABYTE's Ultra-high gain Antenna, featuring smart antenna technology for optimized Wi-Fi signal transmission.

Dual 2.5GbE LAN

The Dual 2.5GbE LAN is perfectly designed for content creation, media centers, workstations, and AI operation. Besides providing ultra-fast network speed, the dual LAN design can ensure constant network availability, load balancing, and smoother high-resolution video streaming.

True High-Fidelity Music

Dive into enveloping surround sound and enjoy DSD audio playback with the Realtek ALC1220 Codec.

Audiophile Grade Capacitors

WIMA & Premium Grade Audio capacitors ensure consistent power delivery, recreating a professional studio-quality sound experience.

Hassle-free Assembly

Our cutting-edge motherboard is designed for the ultimate DIY experience

Sensor panel Link

The built-in video port streamlines Sensor Panel setup without management concerns. Official themes are ready for user to download.

EZ Debug Zone

Centralized debug LEDs and control buttons provide a handy and organized troubleshooting process when building a new computer.

Multi-key

A flexible control key for reset with BIOS-level reconfiguration options for diverse usage scenarios.

RGB Switch

Disable all light displays on the motherboard.

Direct-To-BIOS

Access the BIOS settings directly without keyboard inputs.

Safe Mode

Access BIOS safe mode to modify select settings while preserving other configurations.

Optimal DRAM Installation Indicator

The DRAM Indicator LED will turn on when a module is installed into a non-recommended slot.

Q-FLASH Auto Scan

The new Auto Scan function features when using USB flashdrive during Q-Flash, the BIOS file will be auto scanned instead of searching manually.

Q-FLASH PLUS

Effortlessly upgrade your BIOS without the need to install CPU, RAM, or GPU.

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Product Specification Sheet

Infinite Memory Performance

AERO motherboards boost DDR5 memory performance and offer top-notch compatibility using various advanced methods.

Effortlessly Boost Your DDR5 Memory Speed

DDR5 XMP Booster feature offers ready-to-use settings derived from analysis of memory IC and PMIC vendor. This allows users to maximize DDR5 memory performance without the hassle of manual tweaking for overclocked DDR5 memory kits.

Boost instantly

Instant memory performance uplift

Hassle-free overclocking

Seamlessly overclock for both standard and XMP 3.0 DDR5 memory frequencies.

Hands-off memory tuning

Eliminate manual entry of complex memory settings such as clock, voltage, and timings.

Incorporated database

Built-in library of pre-optimized configurations for diverse memory chip suppliers

Boost DDR5 Memory Performance with Optimized Tuning

Leverage XMP 3.0 User Profile to fine-tune memory settings for peak system performance.

Customizable SPD Profiles or retrieve from database

Create and transfer two custom SPD profiles between systems.

Profile Management

Store and retrieve memory configurations for online sharing.

Instant Reset

Revert memory settings with a single click.

Quick Performance Simulator

Rapidly assess potential memory performance by entering clock speeds and timing parameters.

Unlock non-overclockable DDR5 Potential

Enhance clock speeds of non-overclockable DDR5 modules.

Auto-Overclocking Software by AI model

Unleash Ultimate Performance with One-Click Activation.

Auto CPU & DDR5 Memory Boost

With just a single click, unleash the full potential of CPU & DDR5 memory, instantly boosting your gaming and work efficiency.

One-Click Acceleration:

- Enhance CPU & DDR5 speeds with a single click.
- Real time Analyze
- OC accuracy UP
- EZ to Pro

Fast AI Performance

Accelerate AI processing for greater performance

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Product Specification Sheet

Up to 11% AI Performance*

- Accelerated AI decision-making
- Boosted reinforcement learning
- Streamlined language processing

Boost CPU & Memory Performance

Raise system speed and performance.

Up to 7% Memory Performance Boost*, Up to 5% CPU Performance Boost**

- Tailored-overclocking for your CPU and memory
- Faster data transfer and application loading
- Improved multitasking performance
- Optimized overall system performance

Maximize performance in a snap

Enable users to easily become overclocking experts through a simple interface

Smart & Safe overclocking

Protect your motherboard through multiple over-temperature and over-current safeguards.

Less Power Usage Optimal power-efficiency

With faster computations, it also means reduced power consumption, making it more environmentally friendly and energy-efficient, continuously contributing to the well-being of our planet.

AI SNATCH Engine

The AI model, trained by AI TOP on diverse overclocking datasets, improves precision and stability while optimizing performance. This model serves as the core of AORUS AI Snatch software.

- OC to 20% higher speed
- OC Efficiency UP
- No more try and error
- Optimal performance-stability balance.

AI Flow Chart

- Data Augmentation
- Expands dataset size
- Reduces overfitting risk
- Simulate more realistic conditions

Precise Dataset

- AI-Driven Overclocking Analysis
- List overclocking parameters
- Generate OC attribute weights and relevance matrix
- Create correlation heatmap
- Identified critical attributes

AI-Driven PCB Technology-Redefining PCB Design with Artificial Intelligence

AI-Driven PCB Technology employs AI algorithms to optimize vias, routing and stackups. It ensures peak performance and signal integrity across single and cross-layer throughout the design process.

AI-ViaFusion Technology

Optimized vias & pads for signal integrity

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Product Specification Sheet

AI-Trace Technology

Smart routing for peak performance

AI-Layer Technology

Tailored stackups for enhanced functionality

AI-ViaFusion™ Technology - AI-Powered Excellence in Signal Integrity

Reduction in Signal Reflection Up to 28.2%. AI-ViaFusion, an AI-assisted via optimization technology, determines optimal via and pad sizes across PCB areas. This technology enhances cross-layer signal integrity and transmission efficiency, outperforming traditional design methods.

Best-in-class Signal Quality

- Superior signal transmission efficiency
- Dramatically reduced signal reflection
- Elevated signal quality and reliability
- Enhanced cross-layer PCB signal performance

AI-ViaFusion Technology - AI-Engineered Via Design Formula

AI-ViaFusion is a proprietary AI-generated hybrid via structure design. This PCB technology, validated through AI simulations and testing, aims to enhance high-speed signal transmission.

Optimized Via Design

Varied via sizes for optimized signal and power paths

Driven Pad Optimization

Custom pad sizes for performance and production balance

Precision Impedance Matching

Via & pad sizes selected for optimal signal impedance

Minimized Insertion Loss

Optimized vias reduce signal loss

Enhanced Return Loss

Precision impedance matching reduces reflections

Optimized Eye Diagram

Wider eye opening improves signal integrity

AI-ViaFusion Technology - AI-Driven Revolution in PCB Design

Vias (Vertical Interconnect Access) are critical for multi-layer PCB connectivity. Via size significantly impacts signal integrity, affecting capacitance, reflections, and crosstalk.

Strategic Via Sizing

Optimized for varied signals across PCB

Enhanced Impedance Matching

Precise control via machine learning

Space Optimization

Maximized layout efficiency with signal integrity

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Product Specification Sheet

AI-Trace Technology-Revolutionizing PCB Routing with AI

AI-Trace Technology transforms PCB design by leveraging AI to optimize trace routing, resulting in enhanced performance and signal integrity.

Fiber Weave Effect Mitigation

Optimized signal synchronization

Shielded Memory Routing

Optimized signal shielding and precision

Impedance-Optimized Topology

Refined traces with minimal resistance

Isolated Memory Routing

Optimized trace layout and layer separation

Daisy-Chained Routing

Innovative design eliminates signal bottlenecks

Mitigating Fiber Weave Effect with AI-Trace Technology

Fiber Weave Effect in high-speed PCBs stems from varying dielectric constants of epoxy resin and glass fibers, this causes varying signal propagation speeds, leading to signal integrity issues such as crosstalk and jitter. AI-Trace Technology implements innovative routing angles to mitigate this effect.

Benefits of Mitigation:

- Reduces signal distortion
- Improves transmission reliability
- Supports higher data rates
- Enhances overall system stability

AI-Layer Technology -Next-Generation Multi-Layer PCB Design

AI-Layer Technology creates innovative layer materials for multi-layer PCBs, delivering unparalleled performance.

Core Innovation:

- AI-Optimized Layer Customized Design
- AI-optimized layer design
- Unique material for each layer
- AI-verified signal integrity
- Tailored PCB for peak performance

HyperTune BIOS - AI-Driven Advanced BIOS Optimization Technology BIOS Efficiency Boost Up to 95%+

HyperTune BIOS uses AI to optimize MRC and adapt to signals. Z890 series implements this for peak efficiency, enabling significant memory clock speed boosts and enhanced overall performance.

AI-Enhanced Performance Optimization

- AI-driven MRC parameter optimization
- Adaptive signal strength tuning
- AI tuning accuracy exceeds 95%
- Continuous learning advances performance limits

HyperTune BIOS - Advanced MRC Optimization

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Product Specification Sheet

Memory Reference Code (MRC) is a critical component in BIOS that initializes and configures system memory. HyperTune BIOS leverages AI to optimize MRC, pushing memory performance to new heights while maintaining system stability.

Benefits of HyperTune BIOS MRC Optimization

- Boosted memory clock speeds
- Faster system response
- Improved stability under load
- Auto-adapts to memory modules

Steady Power

Better Play AERO Series, steady power keeps your creation smooth.

Digital Twin VRM Design

Delivers consistent, high-powered performance to elevate your overclocking to the next level.

16 VCORE Phases SPS 80A

Unlock the full power of your multi-core CPU for unmatched performance.

1 VCCGT Phase DrMOS 40A

Optimized for integrated GPU performance and memory management within the CPU.

2 VCCSA Phases SPS 80A

Deliver reliable power to your CPU-connected PCIe lanes for uninterrupted performance.

Comprehensive Thermal

AERO motherboards come with advanced full-metal thermal design and durable heatsinks to keep your system cool and efficient

"Stay Cool, Game On"

High-coverage MOSFETs with integrated molded heatsinks

4x larger surface area for enhanced heat dissipation

With up to 4 times the surface area of traditional coolers, this advanced design significantly boosts MOSFET cooling performance.

True one-piece heatsink design

- Outperforms competitors' multi-piece solutions
- Integrated design and expanded surface area deliver exceptional cooling performance

Multi-cut design with channels for improved airflow

- More grooves, more airflow.
- Better airflow, cooler system.

Superior Heatpipe for optimal heat transfer

- Designed for optimal thermal conductivity
- Ensures efficient heat transfer and maintains system stability

5 W/mK thermal pad for efficient thermal conductivity

- High-performance thermal pad
- Keeps your system cool and running at peak efficiency

M.2 Thermal Guard L

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Product Specification Sheet

with M.2 Thermal Guard Backplate

RL-ILM design

The RL-ILM (Reduced Load-independent loading mechanisms) significantly improves thermal performance up to 4 degreesC and avoids possible bending of the CPU IHS (integrated heat spreader), allowing overclockers and enthusiasts to push their CPUs beyond the limit without any worries.

Smart Fan 6

Superior cooling performance and whisper-quiet operation for your gaming rig.

High Current Support

- Supports both PWM and DC fans, plus water cooling pumps
- Up to 24W (12V x 2A) capacity per fan header
- Built-in over-current protection

Dual Curve Mode

- Choose between slope and stair modes
- Tailor cooling to your specific needs and preferences

Precision Control

- Multiple temperature and fan speed points
- Customizable fan curves for optimal performance

Fan Stop Technology

- Fans can be completely turned off at low temperatures
- Ensures silent operation during light loads

Enhance Fan Curve UI

- 7 adjustable control points
- Expanded speed graph for precise adjustments

Manual Input

- Fine-tune fan speeds for optimal performance
- Precise control for enthusiasts

Fan Curve Profile

- Save personalized settings to BIOS ROM
- Maintain custom settings through BIOS updates

Slope/Stair Dual Graph Mode

- Slope mode: Smooth fan speed curve
- Stair mode: Steady speeds within temperature ranges
- Easy switching between modes

EZ Tuning

- Quick setup with 4 temperature and fan speed points
- Automatic optimization of fan curve

Born from Ultra Durable™

Technology embodies our commitment to excellence, providing gamers with a platform that's not only powerful but also built for longevity and reliability. AERO series motherboards are engineered to endure and excel.

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Product Specification Sheet

PCIe UD Slot X

The latest PCIe UD Slot X offers unparalleled robustness, delivering superior protection for your graphics card.

10X load-bearing capacity

integrated, single-piece design anchored to a exclusive backplate

Inner Lining Rubber Strip

Safeguards your graphics card's PCB against potential damage

Zinc Alloy

Provides effective EMI shielding for high-frequency signals

UD Power Connector

Our innovative UD Power Connector design enhances power conductivity and thermal dissipation.

Solid Pins

Delivers superior conductivity and signal transmission and reduces metal wear from repeated connections.

Ultra Durable PCIe Armor

Features a metal reinforcement plate for the PCIe x16 slot, enhancing stability and durability to support large graphics cards.

Collaborative Excellence in Computing

GIGABYTE motherboards showcases our devotion to BIOS improvement. Through synergy with our user community, we democratize next-level computing power.

UC BIOS

Restructured with user-centered and intuitive performance adjustment mechanisms.

Multi-Theme

Multiple BIOS skin with newly exclusive grayscale mode

Multi-Theme

Now users can choose different BIOS themes with one simple click It not only delivers an immersive user experience but also offers a brand new user-friendly theme: Grayscale.

AIO Fan Control

Enable non-windows users to adjust AIO fan speed in the BIOS before entering the OS.

AI PerfDrive

Featuring "Recommend me profile" function, AI Perfdrive uses the loading tool to make intelligent evaluation and predictions of the optimal usage scenarios for users. Based on the actual temperature performance of the user's system, it can provide users the most optimal and customized "preset profile" recommendations.

Refined BIOS Interface

GIGABYTE User-Centred (UC) BIOS elevates the interface, delivering an optimized experience through an easy-to-navigate layout and attractive design for optimal usability.

Quick Access Function

GIGABYTE UC BIOS' Quick Access function selects brings 9 key options from Advanced Mode directly into Easy Mode, enabling swift adjustments without extensive navigation.

GIGABYTE Control Center

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Product Specification Sheet

A unified software platform encompassing multiple GIGABYTE product.

RGB Fusion

Personalize the RGB illumination on your motherboard and connected peripherals.

Spotlight your flair

Liberate your imagination using GCC's versatile illumination options for your motherboard. Tailor your setup with eye-catching displays that mirror your unique personality and preferences.

Varnish your shine

Programmable RGB LED connectors enable precise control over individual LEDs (for ARGB GEN2 devices), seamlessly managed through the GCC.

Power Monitor

The new feature provides real-time monitoring on CPU Vcore power phases.

- Output current/power in total
- Output of each power phase
- Efficiency

AORUS & HWiNFO Co-branded OSD

AORUS and HWiNFO co-branded OSD(On-Screen Display) can display values as text or graphs in an overlay or independent window, also in full-screen applications and games, with no need for additional software installation.

Default AORUS skin

When using HWiNFO on a GIGABYTE motherboard, a custom AORUS-themed interface automatically activates, offering light and dark options. This AORUS Skin can be manually applied to non-GIGABYTE boards as well.

Memory Timings Monitor

Thanks to the collaborative efforts of GIGABYTE and HWiNFO experts, this sophisticated monitoring tool now provides unprecedented detail in memory timing readouts. This empowers users to closely track memory performance and gather crucial insights.

Detailed BIOS information

GIGABYTE motherboard users can now access comprehensive BIOS details in real-time through HWiNFO. This includes toggle and tweaker statuses, as well as BIOS versions. No need for system reboots to check BIOS info. anymore.

Specifications:

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Specifications	
Product Code	MB-GZ890AG+W
CPU	LGA1851 socket: Support for Intel Core Ultra Processors
	L3 cache varies with CPU
Chipset	Intel Z890 Express Chipset

Memory	Support for DDR5 9200(O.C) / 9066(O.C) / 8933(O.C) / 8800(O.C) / 8600(O.C) / 8400(O.C) / 8266(O.C) / 8200(O.C) / 8000(O.C) / 7950(O.C) / 7900(O.C) / 7800(O.C) / 7600(O.C.) / 7400(O.C.) / 7200(O.C.) / 7000(O.C.) / 6800(O.C.) / 6600(O.C.) / 6400 / 6200 / 6000 / 5800 / 5600MT/s memory modules.
	4 x DDR5 DIMM sockets supporting up to 256 GB (64 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
	Support CUDIMM memory module
	(The CPU and memory configuration may affect the supported memory types, data rate (speed), and number of DRAM modules.)
Onboard Graphics	Integrated Graphics Processor-Intel HD Graphics support:
	- 1 x Intel Thunderbolt 4 connector (USB4 USB Type-C port), supporting DisplayPort and Thunderbolt video outputs
	When a Thunderbolt monitor is installed, the maximum resolution supported is 5120x2880@60 Hz with 24 bpp (single display output).
	When a USB4 USB Type-C monitor is installed, the maximum resolution supported is 3840x2160@240 Hz (single display output).
	* Because of the limited I/O resources of the PC architecture, the number of Thunderbolt devices that can be used is dependent on the number of the PCI Express devices being installed. (Refer to Chapter 2-6, "Back Panel Connectors, " for more information.)
	* Support for DisplayPort 2.1 version and HDCP 2.3
	- 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz
	* Support for HDMI 2.1 version and HDCP 2.3.
	- 1 x Front HDMI port, supporting a maximum resolution of 1920x1080@30 Hz
	* Support for HDMI 1.4 version.
	Support for up to triple-display at the same time
Audio	Realtek ALC1220 CODEC
	* The back panel line out jack supports DSD audio.
	High Definition Audio
	2/4/5.1/7.1-channel
	* You can change the functionality of an audio jack using the audio software. To configure 7.1-channel audio, access the audio software for audio settings.
	Support for S/PDIF Out
LAN	2 x Intel 2.5GbE LAN chips (2.5 Gbps/1 Gbps/100 Mbps)

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Product Specification Sheet

Wireless Communication module	Intel Wi-Fi 7 BE202 (BE200NGW M)
	- 802.11a, b, g, n, ac, ax, be, supporting 2.4/5/6 GHz carrier frequency bands
	- BLUETOOTH 5.4
	- Support for 11be 160MHz wireless standard
	(Actual data rate may vary depending on environment and equipment.)
	* Wi-Fi 7 features require Windows 11 SV3 to function properly. (There is no support driver for Windows 10.)
	** Wi-Fi 7 channels on 6 GHz band availability depends on individual country's regulations.
Expansion Slots	CPU:
	- 1 x PCI Express x16 slot, supporting PCIe 5.0 and running at x16 (PCIEX16)
	- 1 x PCI Express x16 slot, supporting PCIe 5.0 and running at x8 (PCIEX8)
	* The PCIEX8 slot shares bandwidth with the PCIEX16 slot. When the PCIEX8 slot is populated, the PCIEX16 slot operates at up to x8 mode.
	* The PCIEX16 and PCIEX8 slots can only support a graphics card or an NVMe SSD. If only one graphics card is to be installed, be sure to install it in the PCIEX16 slot.
	Chipset:
	- 1 x PCI Express x16 slot, supporting PCIe 4.0 and running at x4 (PCIEX4)
Storage Interface	CPU:
	- 1 x M.2 connector (Socket 3, M key, type 25110/22110/2580/2280 PCIe 5.0 x4/x2 SSD support) (M2A_CPU)
	- 1 x M.2 connector (Socket 3, M key, type 25110/22110/2580/2280 PCIe 4.0 x4/x2 SSD support) (M2B_CPU)
	Chipset:
	- 1 x M.2 connector (Socket 3, M key, type 22110/2280 PCIe 4.0 x4/x2 SSD support) (M2Q_SB)
	- 1 x M.2 connector (Socket 3, M key, type 2280 PCIe 4.0 x4/x2 SSD support) (M2P_SB)
	- 1 x M.2 connector (Socket 3, M key, type 2280 SATA and PCIe 4.0 x4/x2 SSD support) (M2M_SB)
	- 4 x SATA 6Gb/s connectors
	RAID 0, RAID 1, RAID 5, and RAID 10 support for NVMe SSD storage devices
	RAID 0, RAID 1, RAID 5, and RAID 10 support for SATA storage devices

USB	CPU:
	- 1 x Intel Thunderbolt 4 (USB Type-C) ports on the back panel
	*Support up to 40Gbps with Thunderbolt devices
	*Support up to 20Gbps with USB4 devices
	*Support up to 10Gbps with USB 3.2 devices
	Chipset:
	- 1 x USB Type-C port with USB 3.2 Gen 2x2 support, available through the internal USB header
	- 2 x USB 3.2 Gen 2 Type-A ports (red) on the back panel
	- 6 x USB 3.2 Gen 1 ports (4 ports on the back panel, 2 ports available through the internal USB header)
	Chipset+USB 2.0 Hub:
	- 6 x USB 2.0/1.1 ports (2 ports on the back panel, 4 ports available through the internal USB headers)
Internal I/O Connectors	1 x 24-pin ATX main power connector
	2 x 8-pin ATX 12V power connectors
	1 x CPU fan header
	1 x CPU fan/water cooling pump header
	3 x system fan headers
	1 x system fan/water cooling pump header
	3 x addressable RGB Gen2 LED strip headers
	1 x RGB LED strip header
	5 x M.2 Socket 3 connectors
	4 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 2x2 support
	1 x USB 3.2 Gen 1 header
	2 x USB 2.0/1.1 headers
	1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0/GC-TPM2.0 SPI V2 module only)
	1 x HDMI port (Note)
	1 x power button
	1 x reset button
	1 x Q-Flash Plus button
	1 x reset jumper
	1 x Clear CMOS jumper
	(Note) Actual support may vary by CPU.

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Product Specification Sheet

Back Panel Connectors	2 x USB 2.0/1.1 ports
	1 x HDMI port (Note)
	2 x USB 3.2 Gen 2 Type-A ports (red)
	1 x Intel Thunderbolt 4 connectors (USB Type-C ports)
	2 x RJ-45 ports
	4 x USB 3.2 Gen 1 ports
	2 x SMA antenna connectors (2T2R)
	2 x audio jacks
	1 x optical S/PDIF Out connector
	(Note) Actual support may vary by CPU.
I/O Controller	iTE I/O Controller Chip
H/W Monitoring	Voltage detection
	Temperature detection
	Fan speed detection
	Water cooling flow rate detection
	Fan fail warning
	Fan speed control
	* Whether the fan (pump) speed control function is supported will depend on the fan (pump) you install.
BIOS	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	Support for GIGABYTE Control Center (GCC)
	* Available applications in GCC may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications.
	Support for Q-Flash
	Support for Q-Flash Plus
	Support for Smart Backup
Bundled Software	Norton Internet Security (OEM version)
	LAN bandwidth management software
Operating System	Support for Windows 11 64-bit
Form Factor	ATX Form Factor; 30.5cm x 24.4cm

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:

<https://www.comx-computers.co.za/MB-GZ890AG-W-Gigabyte-Z890-Aero-G-WiFi-DDR5-Z890-Express-Buy-p-315971.php>

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