

MB-GB650MG+W

Gigabyte B650M Gaming WiFi AMD B650 Chipset Ryzen AM5 Socket Micro ATX Motherboard

Product Overview

Gigabyte B650M Gaming Wifi (B650M GAME WIFI) AMD Socket AM5, supports Ryzen 7000/8000/9000 Series Processors, Dual Channel DDR5 (up to 7200 MHz OC), PCIe 4.0 x4 M.2, Wi-Fi 6, 2.5GbE LAN, HDMI, DisplayPort, USB 3.2 Gen 1/2, USB Type-C, 7.1-channel HD Audio



Specifications

Features:

Durable Performance

GIGABYTE Ultra Durable™ motherboards built with optimal components inside out provide the prime performance and timeless platform.

Digital VRM Design

5+2+2 Phases Digital VRM Solution with Low RDS(on) MOSFETs

EXPO & XMP Support

- DDR5 EXPO & XMP Overclocking Up to 6400 and Beyond*
- Unlock DDR5 Voltage
- GIGABYTE Exclusive DDR5 Circuit Design
- Shielded Memory Routing
- EXPO and XMP Dual Support
- DDR5 Auto Booster
- AMD EXPO™ and Intel® XMP 3.0 User Profile
- - SPD Re-defined or retrieve from database
- - Performance Simulation
- - Save/Load Profile
- - Overclocked Performance
- - Profile Clearance

Future Connectivity

The ultimate connectivity with blazing data-transfer speeds through the next generation network and storage.

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Product Specification Sheet

802.11ac Wi-Fi

Faster and Better Coverage with Dual Band 802.11ac Wi-Fi + BT 4.2 Module The onboard 802.11ac Wi-Fi module supports Dual Band and up to 433 Mbps, 3x faster Wi-Fi speed than 802.11n and also support BLUETOOTH 4.2.

2.5GbE LAN

Supercharge your gaming with 2.5GbE LAN Achieve lightning-fast speeds, minimal lag, and unbeatable performance to elevate your gaming setup and dominate the competition.

PCIe 4.0 Hardware Design

GIGABYTE B650 Motherboards are ready to work with the PCIe 4.0 devices which are expected to experience twice bandwidth than the current PCIe 3.0 devices. To reach the high speed and maintain good signal integrity, GIGABYTE R&D uses the low impedance PCB to provide the maximum performance.

High-End Audio Capacitors

GIGABYTE motherboards use high-end audio capacitors. These high quality capacitors help deliver high resolution and high fidelity audio to provide the most realistic sound effects for gamers.

Audio Noise Guard

GIGABYTE motherboards feature an audio noise guard that essentially separates the board's sensitive analog audio components from potential noise pollution at the PCB level.

Easy Friendly

Innovative and intuitive hardware, software, and BIOS interface design to create your personal style.

EZ-Latch

Unlock the latch of the PCIe slot easily when remove the graphics card in the PCIe slot.

Q-Flash Plus

Update the BIOS easily without installing the CPU, memory and graphics card. With GIGABYTE Q-Flash Plus, you don't need to install the CPU, memory and graphics card nor enter the BIOS menu to flash the BIOS. Just download and save a new BIOS file (rename to gigabyte.bin) on the USB flash drive, then press the dedicated Q-Flash Plus button and you're good to go!

- STEP 1: Plug 24pin & 8pin power supply cable on motherboard
- STEP 2: Download motherboard BIOS file and rename to ""gigabyte.bin"", save to USB flashdrive, and plug USB flashdrive into Q-Flash USB port
- STEP 3: Press Q-Flash Plus button, and motherboard will start updating BIOS automatically.

Smart Fan 6

Smart Fan 6 contains several unique cooling features that ensure gaming PC maintain its performance while staying cool and quiet. Multiple fan headers can support PWM/DC fan and pump, and users can easily define each fan curve based on different temperature sensors across the board via intuitive user interface.

Cooling Features

High Current Support: Each fan headers support PWM and DC fan and Water Cooling Pump , and up to 24W (12V x 2A) with Over-Current Protection

- Precision Control: Multiple temperature/fan speed control points for precise fan curve
- Dual Curve Mode: Slope/Stair dual mode for different user scenario
- Fan Stop: Fan can stop completely below users' specified temperature point

Smart Fan 6 BIOS UI

- Improve fan curve UI: We increase control points from 5 to 7 and larger fan speed graph for precise and easier fan curve

control.

- Slope/Stair dual graph mode: Fan curve can be quickly switch with Slope and Stair modes for different user scenario. Slope is traditional and intuitive linear fan speed curve. With newly added Stair non-linear mode, fan keeps at same speed between specified temperature interval.
- Manual Input: For advanced users, we provide fan speed manual input for more precise control.
- EZ Tuning: User can place 4 EZ Tuning points at rough temperature/fan speed, and Smart Fan 6 can quickly generate a fan curve.
- Fan curve profile: Fan curve profile can be saved in BIOS ROM, profile will be kept after updating BIOS.

GIGABYTE Control Center

GIGABYTE CONTROL CENTER (GCC) is a unified software for all GIGABYTE supported products. It provides newly designed intuitive user interface to control all essential function.

- Unified software platform for all Gigabyte supported products
- Intuitive user interface for an eased experience
- Modularized control components only for installed hardware
- Auto update function to keep system up to date and support future products

Specifications:

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Specifications	
Product Code	MB-GB650MG+W
CPU	AMD Socket AM5, support for:
	AMD Ryzen 7000 / Ryzen 8000 / Ryzen 9000 Series Processors
Chipset	AMD B650
Memory	Support for DDR5 6400(OC) / 6200(OC) / 6000(OC) / 5600(OC) / 5200 / 4800 / 4400 MT/s memory modules
	2 x DDR5 DIMM sockets supporting up to 128 GB (64 GB single DIMM capacity) of system memory
	Dual channel memory architecture
	Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules
	Support for AMD EXtended Profiles for Overclocking (AMD EXPO) and Extreme
	Memory Profile (XMP) memory modules
	(The CPU and memory configuration may affect the supported memory types, data rate (speed), and number of DRAM modules)
Onboard Graphics	Integrated Graphics Processor with AMD Radeon Graphics support:
	- 1 x D-Sub port, supporting a maximum resolution of 1920x1200@60 Hz
	- 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz
	* Support for HDMI 2.1 version and HDCP 2.3.
	** Support for native HDMI 2.1 TMDS compatible ports.
	(Graphics specifications may vary depending on CPU support.)

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Product Specification Sheet

Audio	Realtek Audio CODEC
	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.
LAN	Realtek 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
Wireless Communication module	AzureWave Wi-Fi AW-CB304NF (Realtek RTL8821CE)
	- WIFI 802.11 a, b, g, n, ac, supporting 2.4/5 GHz Dual-Band
	- BLUETOOTH 4.2
	- Support for 11ac wireless standard
	(Actual data rate may vary depending on environment and equipment.)
Expansion Slots	1 x PCI Express x16 slot (PCIEX16), integrated in the CPU:
	- AMD Ryzen 7000 Series Processors/ Ryzen 9000 Series Processors support PCIe 4.0 x16 mode
	- AMD Ryzen 8000 Series-Phoenix 1 Processors support PCIe 4.0 x8 mode
	- AMD Ryzen 8000 Series-Phoenix 2 Processors support PCIe 4.0 x4 mode
	* For optimum performance, if only one PCI Express graphics card is to be installed, be sure to install it in the PCIEX16 slot.
	Chipset:
	- 1 x PCI Express x1 slot, supporting PCIe 3.0 and running at x1
Storage Interface	1 x M.2 connector, integrated in the CPU, supporting Socket 3, M key, type 2580/2280 SSDs:
	- AMD Ryzen 7000 Series Processors/ Ryzen 9000 Series Processors support PCIe 4.0 x4/x2 SSDs
	- AMD Ryzen 8000 Series-Phoenix 1 Processors support PCIe 4.0 x4/x2 SSDs
	- AMD Ryzen 8000 Series-Phoenix 2 Processors support PCIe 4.0 x4/x2 SSDs
	4 x SATA 6Gb/s connectors
	RAID 0, RAID 1, and RAID 10 support for NVMe SSD storage devices
	RAID 0, RAID 1, and RAID 10 support for SATA storage devices
USB	CPU:
	- 2 x USB 3.2 Gen 1 ports on the back panel
	- 1 x USB 2.0/1.1 port on the back panel
	Chipset:
	- 2 x USB 3.2 Gen 1 ports available through the internal USB header
	- 5 x USB 2.0/1.1 ports (3 ports on the back panel, 2 ports available through the internal USB header)
	Chipset+USB 2.0 Hub:
	- 2 x USB 2.0/1.1 ports available through the internal USB header

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Product Specification Sheet

Internal I/O Connectors	1 x 24-pin ATX main power connector
	1 x 8-pin ATX 12V power connector
	1 x CPU fan header
	2 x system fan headers
	2 x addressable LED strip headers
	1 x RGB LED strip header
	1 x M.2 Socket 3 connector
	4 x SATA 6Gb/s connectors
	1 x front panel header
	1 x front panel audio header
	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 Clear CMOS jumper
Back Panel Connectors	4 x USB 2.0/1.1 ports
	1 x PS/2 keyboard/mouse port
	1 x D-Sub port
	1 x Q-Flash Plus button
	2 x USB 3.2 Gen 1 ports
	1 x HDMI port
	1 x RJ-45 port
	?3 x audio jacks
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 speed control function is supported will depend on the fan 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

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Product Specification Sheet

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
Bundled Software	Norton Internet Security (OEM version)
	LAN bandwidth management software
Operating System	Support for Windows 11 64-bit
	Support for Windows 10 64-bit
Form Factor	Micro ATX Form Factor; 24.0cm x 22.5cm

Product Information Online

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

Product page:

<https://www.comx.co.za/MB-GB650MG-W-Gigabyte-B650M-Gaming-WiFi-AMD-B650-Chipset-Buy-p-320195.php>

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