

MB-GA620MS2H

Gigabyte A620M S2H A620 Chipset AMD Ryzen AM5 Socket Micro ATX Motherboard

Product Overview

Gigabyte A620M S2H: AMD AM5 mb - with 5+2+2 phase digital VRM, Addressable LED Strip Support, on-board multi-key buttons, 2x copper PCBs design, MoSFET heatsinks SmartFan6 with 5x temperature sensors + 3x hybrid fan headers - AMD A620 chipset, 2x dual channel DDR5-6400(O.C)/5200 up to 128Gb, 4x SATA6G + 1x M.2/NGFF (Gen4x4) with raid 0/1/0+1/5/10, on-board display with D-SUB+ HDMI+ DP triple outputs (depends on CPU) + Realtek ALC1220-VB 7.1 audio + realtek gigabit LAN; 1x PCI-E3.0(x1) + 1x pci-e 4.0 (x16@16x), with 2x USB3 type-A (Gen1 5GBPs) + 4x USB2.0 , support optional serial port add-on cable, bundled Norton internet security - micro-atx



Specifications

Features:

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

GIGABYTE UD series motherboards use a 5+2+2 phases digital PWM + Low RDS(on) MOSFETs design to support AMD's new generation CPU by offering incredible precision in delivering power to the motherboard's most power-hungry and energy-sensitive components as well as delivering enhanced system performance and ultimate hardware scalability.

PCIe 4.0 Hardware Design

GIGABYTE A620 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.

DDR5 EXPO & XMP Overclocking Up to 6400 and Beyond*

GIGABYTE is offering a tested and proven platform that the memory overclocking capability is able up to 6400 and beyond. All users need to do for achieving this extreme memory performance boost is to ensure that their DDR5 memory modules are AMD EXPO™/ Intel® XMP capable, the EXPO/XMP function is activated and enabled on their GIGABYTE motherboard.

Unlock DDR5 Voltage

- GIGABYTE exclusive circuit design unlocks Native DDR5 voltage control
- Transforms Native DDR5 memory module to Overclocked DDR5 memory
- Increases DDR5 memory overclocking performance and capability
- Supports all PMIC vendors for maximum compatibility

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Programmable Mode

GIGABYTE's exclusive design unlocks Native DDR5 PMIC secure mode into programmable mode and control Native DDR5 voltage with wide range.

Shielded Memory Routing

All memory routing is under the PCB inner layer shielded by a large ground layer to protect from external interference.

EXPO and XMP Dual Support

GIGABYTE AM5 MB supports both AMD EXPO™ and Intel® XMP overclocking memory modules for maximal compatibility. MB will automatically detect both profiles format in SPD, users can choose to enable one of profiles from BIOS menu and easily reach overclocked memory performance.

DDR5 Auto Booster

Automatically Boost the Native DDR5 frequency to 5000MHz while the system is under heavy loading by a single click.

AMD EXPO™ and Intel® XMP 3.0 User Profile

Define and create your own SPD profile into Native, AMD EXPO™ and Intel® XMP 3.0 memory modules. One user-defined profile can be saved, loaded either locally or from/to an external storage device.

- One empty SPD profile can be defined by users and carry to next computer
- Quick memory performance simulation based on user input clock and timing parameters
- Profile save and load function to share your memory parameters online

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

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

Use 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.

GbE LAN with Bandwidth Management

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GbE LAN features a network bandwidth management application which helps to improve network latency and maintain low ping times to deliver better responsiveness in crowded LAN environments.

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.

Friendly User Interface

The EASY MODE shows important hardware information in one page including CPU clock, Memory, Storage, Fan.

My Favorites

Add constantly used items into the favorite menu for quick access.

Storage Information

Show all kinds of storage information including SATA, PCIE and M.2 interface.

Changelog

List all changes before saving and exiting bios. Quickly review overall settings modification.

Intuitive Load Line Curve

Clearly show each loadline calibration setting in an intuitive curve graph.

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

PCIe EZ-Latch

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

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!

Specifications:

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Specifications

Product Code	MB-GA620MS2H
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Product Specification Sheet

CPU	AMD Socket AM5, support for:
	AMD Ryzen 7000 Series Processors
Chipset	AMD A620
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 96 GB (48 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:
	- 1 x D-Sub port, supporting a maximum resolution of 1920x1200@60 Hz
	- 1 x DisplayPort, supporting a maximum resolution of 3840x2160@144 Hz
	* Support for DisplayPort 1.4 version.
	- 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.)
	Support for up to 3 displays at the same time
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 GbE LAN chip (1 Gbps/100 Mbps/10 Mbps)
Expansion Slots	CPU:
	- 1 x PCI Express x16 slot, supporting PCIe 4.0 and running at x16
	Chipset:
	- 1 x PCI Express x1 slot, supporting PCIe 3.0 and running at x1
Storage Interface	CPU:
	- 1 x M.2 connector (Socket 3, M key, type 2580 PCIe 4.0 x4/x2 SSD support)
	Chipset:
	- 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

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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
	- 7 x USB 2.0/1.1 ports (3 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
	1 x 8-pin ATX 12V power connector
	1 x CPU fan header
	2 x system fan headers
	1 x addressable LED strip header
	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 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 DisplayPort
	1 x HDMI port
	1 x RJ-45 port
	3 x audio jacks
I/O Controller	iTE I/O Controller Chip

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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
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; 23.0cm 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-computers.co.za/MB-GA620MS2H-Gigabyte-A620M-S2H-A620-Chipset-AMD-Ryzen-Buy-p-281338.php>

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