

MB-GZ790MAEW+W

Gigabyte Z790M Aorus Elite AX Intel 12th / 13th / 14th Gen Socket LGA 1700 mATX Motherboard

Product Overview

Gigabyte Z790M Aorus Elite AX Intel 12th / 13th / 14th Gen Socket LGA 1700 mATX Motherboard, Intel Z790 Express Chipset, 4x DDR5 DIMM Memory slots, 1x HDMI Port, 1x DisplayPort, Realtek 2.5GbE LAN Chip, Wi-Fi 6E, Bluetooth 5.3, 1x PCI Express x16 slot supporting PCI-e 5.0 and running at x16, 1x PCI Express x16 slot supporting PCI-e 4.0 and running at x4, 3x M.2 connector, 6x SATA 6Gb/s connectors, USB Type-C Port with USB 3.2 Gen 2x2 support, USB Type-C Port with USB 3.2 Gen 2 support, USB 3.2 Gen 2 Type-A Port, USB 3.2 Gen 1 Ports, USB 2.0/1.1 Ports, 1x Q-Flash Plus Button, 1x Optical S/PDIF out connector, 2x audio jacks





Specifications

Overview:

Z790M AORUS ELITE AX (rev. 1.0)

- IntelSocket LGA 1700:Support 13th and 12th Gen Series Processors
- Unparalleled Performance:Twin 12*+1+1 Phases Digital VRM Solution
- Dual Channel DDR5:4*SMD DIMMs with XMP 3.0 Memory Module Support
- Next Generation Storage:3*PCIe 4.0 x4 M.2 Connectors
- Advanced Thermal Design & M.2 Thermal Guard:To Ensure VRM Power Stability & M.2 SSD Performance
- EZ-Latch:PCIe x16 Slot & M.2 Connectors with Quick Release & Screwless Design
- Fast Networks:2.5GbE LAN & Wi-Fi 6E 802.11ax
- Extended Connectivity:HDMI, DP, Rear USB-C20Gb/s, Front USB-C10Gb/s
- Smart Fan 6:Features Multiple Temperature Sensors, Hybrid Fan Headers with FAN STOP
- Q-Flash Plus:Update BIOS Without Installing the CPU, Memory and Graphics Card

* 6+6 phases parallel power design

Features:

UNPARALLELED PERFORMANCE

With the fast-moving technology changes, GIGABYTE always follows the latest trends and provides customers with advanced features and latest technologies. GIGABYTE motherboards are equipped with upgraded power solution, latest storage standards and outstanding connectivity to enable optimized performance for gaming.

Smart Fan 6

GIGABYTE Motherboards' unparalleled performance is guaranteed by innovative and optimized thermal design to ensure the best CPU, Chipset, SSD stability and low temperatures under full load application and gaming performance.

Hi-Fi Audio

GIGABYTE Motherboards enable the ultimate connection experience with blazing data-transfer speeds through the next generation network, storage, and Wi-Fi connectivity.

Multi-Key

GIGABYTE motherboards bundle several useful and intuitive software to help users to control every aspect of motherboard and provide customizable lighting effect with outstanding aesthetics to fit your unique personality.

Q-Flash Plus

GIGABYTE Ultra Durable design provides product durability and high-quality manufacturing process. GIGABYTE motherboards use the best components and reinforce every slots to make each of them solid and durable.

Specifications:

CPU	1. LGA1700 socket: Support for the 14th, 13th, and 12th Generation Intel Core, Pentium Gold and Celeron Processors
	2. L3 cache varies with CPU
Chipset	1. Intel Z790 Express Chipset
Memory	1. Support for DDR5 7600(O.C.) / 7400(O.C.) / 7200(O.C.) / 7000(O.C.) / 6800(O.C.) / 6600(O.C.) / 6400(O.C.) / 6200(O.C.) / 6000(O.C.) / 5800(O.C.) / 5600(O.C.) / 5400(O.C.) / 5200(O.C.) / 4800 / 4000 memory modules
	2. 4 x DDR5 DIMM sockets supporting up to 192 GB (48 GB single DIMM capacity) of system memory
	3. Dual channel memory architecture
	4. Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules (operate in non-ECC mode)
	5. Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules
	6. Support for 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, please refer to "Memory Support List" for more information.)
Onboard Graphics	Integrated Graphics Processor-Intel HD Graphics support:
	1. 1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz
	* Support for HDMI 2.1 version and HDCP 2.3.
	** Support native HDMI 2.1 TMDS compatible ports.
	2. 1 x DisplayPort, supporting a maximum resolution of 4096x2304@60
	* Support for DisplayPort 1.2 version and HDCP 2.3
	(Graphics specifications may vary depending on CPU support.)
Audio	1. Realtek ALC1200 CODEC
	2. High Definition Audio
	3. 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.
	4. Support for S/PDIF Out
LAN	1. Realtek 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
Wireless Communication module	Intel Wi-Fi 6E AX211
	1. WIFI a, b, g, n, ac, ax, supporting 2.4/5/6 GHz carrier frequency bands
	2. BLUETOOTH 5.3
	3. Support for 11ax 160MHz wireless standard and up to 2.4 Gbps data rate
	* Actual data rate may vary depending on environment and equipment.

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Product Specification Sheet

Expansion Slots	CPU:
	1. 1 x PCI Express x16 slot, supporting PCIe 5.0 and running at x16 (PCIEX16)
	* 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. 1 x PCI Express x16 slot, supporting PCIe 4.0 and running at x4 (PCIEX4)
	Support for AMD CrossFire technology
Storage Interface	CPU:
	1. 1 x M.2 connector (Socket 3, M key, type 2280 PCIe 4.0 x4/x2 SSD support) (M2A_CPU)
	Chipset:
	1. 1 x M.2 connector (Socket 3, M key, type 2280 PCIe 4.0 x4/x2 SSD support) (M2Q_SB)
	2. 1 x M.2 connector (Socket 3, M key, type 22110/2280 PCIe 4.0 x4/x2 SSD support) (M2P_SB)
	3. 6 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	Chipset:
	1. 1 x USB Type-C port on the back panel, with USB 3.2 Gen 2x2 support
	2. 1 x USB Type-C port with USB 3.2 Gen 2 support, available through the internal USB header
	3. 1 x USB 3.2 Gen 2 Type-A port (red) on the back panel
	Chipset+2 USB 2.0 Hubs:
	1. 6 x USB 3.2 Gen 1 ports (4 ports on the back panel, 2 ports available through the internal USB header)
	Chipset+2 USB 2.0 Hubs:
	1. 8 x USB 2.0/1.1 ports (4 ports on the back panel, 4 ports available through the internal USB headers)

Internal I/O Connectors	1. 1 x 24-pin ATX main power connector
	2. 1 x 8-pin ATX 12V power connector
	3. 1 x 4-pin ATX 12V power connector
	4. 1 x CPU fan header
	5. 1 x water cooling CPU fan header
	6. 3 x system fan headers
	7. 1 x system fan/water cooling pump header
	8. 2 x addressable LED strip headers
	9. 2 x RGB LED strip headers
	10. 3 x M.2 Socket 3 connectors
	11. 6 x SATA 6Gb/s connectors
	12. 1 x front panel header
	13. 1 x front panel audio header
	14. 1 x USB Type-C header, with USB 3.2 Gen 2 support
	15. 1 x USB 3.2 Gen 1 header
	16. 2 x USB 2.0/1.1 headers
	17. 2 x Thunderbolt add-in card connectors
	18. 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0 module only)
	19. 1 x serial port header
	20. 1 x reset button
	21. 1 x Q-Flash Plus button
	22. 1 x Clear CMOS button
	23. 1 x reset jumper
Back Panel Connectors	1. 1 x USB Type-C port, with USB 3.2 Gen 2x2 support
	2. 1 x USB 3.2 Gen 2 Type-A port (red)
	3. 4 x USB 3.2 Gen 1 ports
	4. 4 x USB 2.0/1.1 ports
	5. 2 x SMA antenna connectors (2T2R)
	6. 1 x HDMI 2.0 port
	7. 1 x DisplayPort
	8. 1 x RJ-45 port
	9. 1 x optical S/PDIF Out connector
	10. 2 x audio jacks
I/O Controller	1. iTE I/O Controller Chip

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Product Specification Sheet

H/W Monitoring	1. Voltage detection
	2. Temperature detection
	3. Fan speed detection
	4. Water cooling flow rate detection
	5. Fan fail warning
	6. Fan speed control
	* Whether the fan (pump) speed control function is supported will depend on the fan (pump) you install.
BIOS	1. 1 x 256 Mbit flash
	2. Use of licensed AMI UEFI BIOS
	3. PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
Unique Features	1. 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.
	2. Support for Q-Flash
	3. Support for Q-Flash Plus
	4. Support for Smart Backup
Bundled Software	1. Norton Internet Security (OEM version)
	2. LAN bandwidth management software
Operating System	1. Support for Windows 11 64-bit
	2. Support for Windows 10 64-bit
Form Factor	1. Micro ATX Form Factor, 24.4cm 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.co.za/MB-GZ790MAEW-W-Gigabyte-Z790M-Aorus-Elite-AX-Intel-Buy-p-294521.php>

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