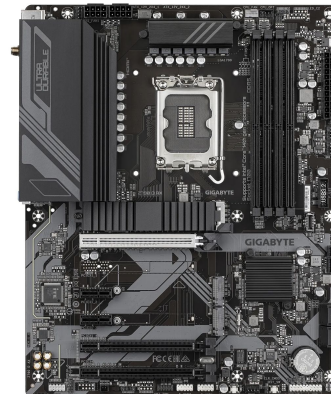
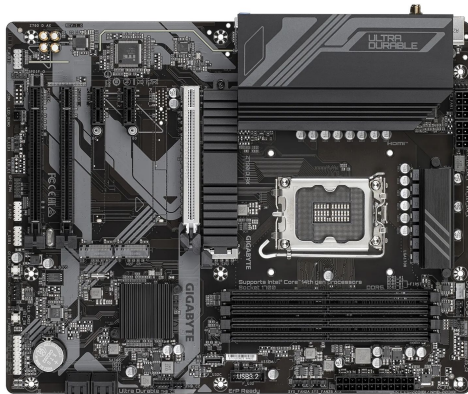


MB-GZ790DD5+W

Gigabyte Z790 D AX Intel 12th / 13th / 14th Gen Socket LGA 1700 ATX Motherboard

Product Overview

Gigabyte Z790 D AX Intel 12th / 13th / 14th Gen Socket LGA 1700 ATX Motherboard, Intel Z790 Express Chipset, 4 x DDR5 DIMM Memory slots, 1x HDMI Port, 1 x 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, 1x PCI Express x16 slot supporting PCI-e 3.0 and running at x1, 2x PCI Express x1 slots, Supporting PCI-e 3.0 and running at x1, 3x M.2 connector, 4x SATA 6Gb/s connectors, USB Type-C Port with USB 3.2 Gen 2 support, USB Type-C Port with USB 3.2 Gen 1 support, USB 3.2 Gen 2 Type-A Port, USB 3.2 Gen 1 Ports, USB 2.0 Ports, 1x Q-Flash Plus Button, 1x PS/2 Keyboard/Mouse Port, 3x audio jacks





Specifications

Overview:

Z790 D AX

- Supports Intel Core 14th/ 13th /12th processors
- Unparalleled Performance:Twin 12*+1+1 Phases Digital VRM Solution
- Dual Channel DDR5:4*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 4.0x16 Slot with Quick Release Design
- Fast Networks:2.5GbE LAN & Wi-Fi 6E 802.11ax
- Extended Connectivity:DP, HDMI, Rear USB-C 10Gb/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

Features:

Durable Performance

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

Digital VRM Design

The best VRM design ever built with the highest quality components.

- 12+1+1 Phases digital PWM + Low RDS(on) MOSFETs
- Support the latest CPUs, and deliver enhanced system performance and ultimate hardware scalability.

Unlock DDR5

DDR5 Overclocking Up to 7600 and Beyond*

GIGABYTE is offering a tested and proven platform with extreme memory performance boost.

Unlock DDR5 Voltage

GIGABYTE Exclusive DDR5 Circuit Design Increases DDR5 memory overclocking performance and capability by transforming Native DDR5 memory module to Overclocked DDR5 memory.

Secure Mode

Motherboard provides fixed 5V to Native DDR5 memory and built-in PMIC outputs locked 1.1v to memory IC.

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Achieve Higher DDR5 Memory Frequencies with Ease

DDR5 XMP Booster function provides optimized pre-defined profiles, based on memory IC and PMIC vendor analysis, for effortless performance enhancement and elimination of manual configuration for overclocked DDR5 memory kits.

Maximize DDR5 performance with your memory settings

XMP 3.0 User Profile empowers you to optimize your memory settings and achieve the best performance for your system.

- SPD Re-defined or retrieve from database Users can define two empty SPD profiles and transfer them to another computer.
- Performance Simulation Simulate memory performance quickly by inputting clock and timing parameters.
- Save/Load Profile Save and load memory profiles for online sharing.
- Boost non-overclockable DDR5 memory frequency Increase the frequency of non-overclockable DDR5 memory.
- One-click Clear Profile Reset memory settings conveniently.

Thermal

Enlarged MOSFET Heatsink

3X Large Surface

Increased surface area up to 3X larger compared to traditional heatsinks. It improves heat dissipation from the MOSFETs.

Real One-piece Build

TMOS is a TRUE single piece heatsink. Its one-piece design and larger surface drastically improve the cooling performance against competitors' multi-piece design.

M.2 Thermal Guard

The M.2 Thermal Guard prevents throttling and bottlenecks from high speed M.2 SSDs as it helps to dissipate heat before it becomes an issue.

Thermal

6-Layer & 2X Copper PCB

2X copper PCBs design effectively lower the component temperature by its high thermal conductivity and low impedance.

Future Connectivity

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

802.11ax Wi-Fi 6E

The latest Wireless solution 802.11ax Wi-Fi 6E with new dedicated 6GHz band, enables gigabit wireless performance, provides smooth video streaming, better gaming experience, few dropped connections and speeds up to 2.4Gbps. Moreover, Bluetooth 5 provides 4X range over BT 4.2 and with faster transmission.

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 5.0 / 4.0 Hardware Design

Featuring PCIe 5.0 x16 slot and PCIe 4.0 M.2 slot support, GIGABYTE Motherboards are ready to work with the PCIe 5.0/ 4.0 devices to provide the superior performance.

High-End Audio Capacitors

These high quality capacitors help deliver high resolution and high fidelity audio to provide the most realistic sound effects.

Audio Noise Guard

Essentially separates the board's sensitive analog audio components from potential noise pollution at the PCB level.

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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.

- STEP 1: Plug the 24-pin and 8-pin power supply cables into the motherboard.
- STEP 2: Download the motherboard BIOS file and rename it to "gigabyte.bin". Save it to a USB flash drive formatted in FAT32 . Insert the USB flash drive into the Q-FLASH PLUS USB port.
- STEP 3: Press the Q-FLASH PLUS button, and the motherboard will start updating the BIOS automatically.

Smart Fan 6

ensures optimal cooling and quiet operation for your gaming PC, with support for PWM/DC fans and pumps, customizable settings, and intuitive temperature monitoring.

- 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

1. Enhance Fan Curve UI : Enhance fan curve control with an expanded number of control points, from 5 to 7, and a larger fan speed graph, enabling users to have more precise and effortless control over fan curve settings.
2. Slope/Stair Dual Graph Mode : Switch between Slope and Stair modes to adapt to various user scenarios. Slope mode provides a linear fan speed curve, while Stair mode maintains a constant fan speed within specified temperature intervals.
3. Manual Input : For advanced users, manual input of fan speeds is available for fine-tuning and precise control over the cooling system.
4. EZ Tuning : Simplify the process with EZ Tuning by setting 4 points on a rough temperature/fan speed scale. Smart Fan 6 will quickly generate a fan curve based on these points.
5. Fan Curve Profile : Save your customized fan curve profile in the BIOS ROM, ensuring it remains intact even after BIOS updates.

Specifications:

CPU	LGA1700 socket: Support for the 14th, 13th, and 12th Generation Intel Core, Pentium Gold and Celeron Processors
	L3 cache varies with CPU
Chipset	Intel Z790 Express Chipset

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Product Specification Sheet

Memory	14th and 13th Generation Intel Core i9/i7 Processors:
	- 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 / 5400 / 5200 / 4800 / 4400 MT / s memory modules
	13th Generation Intel Core i5/i3 and 12th Generation Intel Core, Pentium Gold and Celeron Processors:
	- Support for DDR5 4800/4400 MT/s memory modules
	4 x DDR5 DIMM sockets supporting up to 192 GB (48 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
	(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" on GIGABYTE's website for more information.)
Onboard Graphics	Integrated Graphics Processor-Intel HD Graphics support:
	- 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.
	- 1 x DisplayPort, supporting a maximum resolution of 4096x2304@60 Hz
	* Support for DisplayPort 1.2 version and HDCP 2.3
	(Graphics specifications may vary depending on CPU support.)
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.
	Support for S/PDIF Out
LAN	Realtek 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)
Wireless Communication module	Intel Wi-Fi 6E AX211 (PCB rev. 1.0)
	- WIFI a, b, g, n, ac, ax, supporting 2.4/5/6 GHz carrier frequency bands
	- BLUETOOTH 5.3
	- Support for 11ax 160MHz wireless standard
	(Actual data rate may vary depending on environment and equipment.)

Expansion Slots	CPU:
	- 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 x PCI Express x16 slot, supporting PCIe 4.0 and running at x4 (PCIEX4)
	- 1 x PCI Express x16 slot, supporting PCIe 3.0 and running at x1 (PCIEX1_4)
	- 2 x PCI Express x1 slots, supporting PCIe 3.0 and running at x1 (PCIEX1_2, PCIEX1_3)
Storage Interface	CPU:
	- 1 x M.2 connector (Socket 3, M key, type 22110/2280 PCIe 4.0 x4/x2 SSD support) (M2A_CPU)
	Chipset:
	- 1 x M.2 connectors (Socket 3, M key, type 2280 PCIe 4.0 x4/x2 SSD support) (M2P_SB)
	- 1 x M.2 connectors (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	Chipset:
	- 1 x USB Type-C port on the back panel, with USB 3.2 Gen 2 support
	- 1 x USB Type-C port with USB 3.2 Gen 1 support, available through the internal USB header
	- 1 x USB 3.2 Gen 2 Type-A port (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)
	- 2 x USB 2.0/1.1 ports on the back panel
	Chipset+USB 2.0 Hub:
	- 4 x USB 2.0/1.1 ports, available through the internal USB headers

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Product Specification Sheet

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
	2 x addressable LED strip headers
	3 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 S/PDIF Out header
	1 x USB Type-C header, with USB 3.2 Gen 1 support
	1 x USB 3.2 Gen 1 header
	2 x USB 2.0/1.1 headers
	2 x Thunderbolt add-in card connectors
	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 reset button
	1 x Q-Flash Plus button
	1 x reset jumper
	1 x Clear CMOS jumper
Back Panel Connectors	1 x PS/2 keyboard/mouse port
	1 x USB Type-C port, with USB 3.2 Gen 2 support
	1 x USB 3.2 Gen 2 Type-A port (red)
	4 x USB 3.2 Gen 1 ports
	2 x USB 2.0/1.1 ports
	2 x SMA antenna connectors (2T2R)
	1 x HDMI port
	1 x DisplayPort
	1 x RJ-45 port
	3 x audio jacks
I/O Controller	iTE I/O Controller Chip

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Product Specification Sheet

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
	Support for Windows 10 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-GZ790DD5-W-Gigabyte-Z790-D-AX-Intel-12th-13th-14th-Buy-p-294519.php>

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