

# Gigabyte Z790 AORUS ELITE DDR4 motherboard

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| <b>Artikel</b>          | 129897                |
| <b>Herstellernummer</b> | Z790 AORUS ELITE DDR4 |
| <b>EAN</b>              | 4719331849948         |
| Gigabyte                |                       |

## 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.

### Twin Digital VRM Design

To ensure maximum Turbo Boost and overclocking performance of Intel's new generation CPU, GIGABYTE AORUS series motherboard equip the best VRM design ever built with the highest quality components.

### Single 32GB Support

The maximum memory capacity on the Z690 motherboard is 128GB. After Intel updated the memory reference code, a single slot can support up to 32GB. Therefore with populated 2 DIMM per channel on both channel, total memory capacity is 128GB, which was only available on High End Desktop (HEDT) platforms. For users who always run out of memory capacity, there is more bandwidth now for memory-intensive application such as rendering and video editing.

### Triple 7G/s Gen4 M.2 PCIe SSDs in RAID 0

The exclusive 3 PCIe 4.0 M.2 from CPU and 2nd Generation 7000 MB/s SSD provides unparalleled Read/ Write performance up to 21053 and 15499 MB/s.

## OUTSTANDING THERMAL DESIGN

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.

### 4X Large Surface

Increased surface area up to 4X 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.

### Multi-Cut Design

TMOS features several channels and inlets on the heatsink. This design allows for the air flow to go through which leads to a great improvement of the heat transfer performance.

### M.2 Thermal Guard III

M.2 Thermal Guard III constructed with 6X optimized heat dissipation surface to prevent throttling and bottleneck that high-speed/ large capacity of PCIe 5.0 M.2 SSDs may cause, especially under heavy workload. The special design of heatsink grooves in the direction of CPU further enhances the in-chassis air flow and optimizes the heat convection efficiency.

## CONNECTIVITY

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

### Connecting the Future - USB 3.2 Gen 2x2 Type-C®

Featuring the USB 3.2 Gen 2x2 design which is doubled the performance than previous generation of USB 3.2 Gen 2. It works up to 20Gbps ultra-fast data transfer while connecting to USB 3.2 compliant peripherals. Through the USB Type-C® connector, users can enjoy the flexibility of reversible connection to access and store massive amounts of data rapidly.

### CONNECTING THE FUTURE - Front USB3.2 Gen 2 Type-C®

USB 3.2 Gen 2 provides USB 3.2 Gen 2 ports with speeds up to 10Gbps. With twice the bandwidth compared to its previous generation as well as backwards compatibility with USB 2.0 and USB 3.2 Gen1, the much improved USB 3.2 Gen 2 protocol is available over the new reversible USB Type-C™ and the traditional USB Type-A connector for better compatibility over a wider range of devices.

### Audiophile Grade Capacitors (Premium Grade Audio)

To ensure a studio-quality experience, WIMA and Premium Grade Audio capacitors are used to provide power to the overall system.

## PERSONALIZATION

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.

### RGB Fusion Multi-Zone Light Show Design

Now offering more LED customizations than ever, users can truly adapt their PC to represent their lifestyle. With full RGB support and a redesigned RGB Fusion 2.0 application, the user has complete control over the LEDs which surround the motherboard.

Note: Lighting effects depicted are for demonstration purposes only. Actual lighting effects may vary by model.

### Multi-key

A multi-function reset button that can be reconfigured to other function in BIOS for different user scenarios.

## ULTRA DURABLE

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.

### PCIe EZ-Latch

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

### EZ-Latch

With GIGABYTE EZ-Latch, you can DIY your PC in no time, quick and easy.

### 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!

## Zusammenfassung

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Gigabyte Z790 AORUS ELITE DDR4, Intel, LGA 1700, Intel® Celeron®, Intel® Core™ i3, Intel® Core™ i5, Intel® Core™ i7, Intel® Core™ i9,...., LGA 1700, DDR4-SDRAM, 128 GB

Gigabyte Z790 AORUS ELITE DDR4. Processor manufacturer: Intel, Processor socket: LGA 1700, Compatible processor series: Intel® Celeron®, Intel® Core™ i3, Intel® Core™ i5, Intel® Core™ i7, Intel® Core™ i9,.... Supported memory types: DDR4-SDRAM, Maximum internal memory: 128 GB, Memory slots type: DIMM. Supported storage drive interfaces: M.2, PCI Express 4.0, SATA III, Supported storage drive types: HDD & SSD, RAID levels: 0, 1, 5, 10. Parallel processing technology support: Crossfire, Maximum resolution: 4096 x 2304 pixels. USB connector type: USB Type-A, USB Type-C

## Merkmale

### Expansion slots

|                         |   |
|-------------------------|---|
| PCI Express x16 slots   | 3 |
| Number of M.2 (M) slots | 4 |

### Packaging content

|                  |                          |
|------------------|--------------------------|
| Cables included  | SATA                     |
| Bundled software | Norton Internet Security |

### Weight & dimensions

|       |        |
|-------|--------|
| Width | 305 mm |
| Depth | 244 mm |

### Graphics

|  |                    |
|--|--------------------|
| Parallel processing technology support | Crossfire          |
| Maximum resolution                     | 4096 x 2304 pixels |
| HDCP                                   | Y                  |

### Network

|                         |                      |
|-------------------------|----------------------|
| Ethernet LAN            | Y                    |
| Ethernet interface type | 2.5 Gigabit Ethernet |
| Wi-Fi                   | N                    |

### Processor

|                        |          |
|------------------------|----------|
| Processor manufacturer | Intel    |
| Processor socket       | LGA 1700 |

### Storage controllers

|                                    |                                |
|------------------------------------|--------------------------------|
| Supported storage drive types      | HDD & SSD                      |
| Supported storage drive interfaces | M.2, PCI Express 4.0, SATA III |
| Number of storage drives supported | 10                             |
| RAID support                       | Y                              |
| RAID levels                        | 0, 1, 5, 10                    |

### BIOS

|  |          |
|--|----------|
| BIOS type                                  | UEFI AMI |
| BIOS memory size                           | 256 Mbit |
| ACPI version                               | 5.0      |
| Clear CMOS jumper                          | Y        |
| Clear CMOS button                          | Y        |
| Desktop Management Interface (DMI) version | 2.7      |
| System Management BIOS (SMBIOS) version    | 2.7      |

### Features

|                                     |  |
|-------------------------------------|--|
| Motherboard chipset                 | Intel Z790                               |
| Audio output channels               | 7.1 channels                             |
| PC health monitoring                | Fan, Temperature, Voltage, Water cooling |
| Component for                       | PC                                       |
| Motherboard form factor             | ATX                                      |
| Motherboard chipset family          | Intel                                    |
| Windows operating systems supported | Windows 10 x64, Windows 11 x64           |

### Memory

|                        |            |
|------------------------|------------|
| Supported memory types | DDR4-SDRAM |
|------------------------|------------|

|                             |   |
|-----------------------------|---|
| Compatible processor series | Intel® Celeron®, Intel® Core™ i3, Intel® Core™ i5, Intel® Core™ i7, Intel® Core™ i9, Intel® Pentium® Gold |
| Supported processor sockets | LGA 1700  |

|                                    |  |
|------------------------------------|--|
| Number of memory slots             | 4  |
| Memory slots type                  | DIMM   |
| Memory channels                    | Dual-channel   |
| ECC                                | Y  |
| Non-ECC                            | Y  |
| Supported memory clock speeds      | 2133,2400,2666,2800,2933,3000,3200,3300,3333,3400,3466,3600,3666,3733,3800,3866,4000,4133,4266,4300,4400,4500,4600,4700,4800,4933,5000,5133,5333 MHz |
| Supported memory clock speed (max) | 7600 MHz   |
| Maximum internal memory            | 128 GB   |
| Unbuffered memory                  | Y  |

### Internal I/O

|                                      |   |
|--------------------------------------|---|
| USB 2.0 connectors                   | 2 |
| USB 3.2 Gen 1 (3.1 Gen 1) connectors | 1 |
| USB 3.2 Gen 2 (3.1 Gen 2) connectors | 1 |
| Number of SATA III connectors        | 4 |
| Front panel audio connector          | Y |
| Front panel connector                | Y |
| ATX Power connector (24-pin)         | Y |
| CPU fan connector                    | Y |
| EPS power connector (8-pin)          | Y |
| TPM connector                        | Y |
| Thunderbolt headers                  | 2 |
| 12V power connector                  | Y |
| RGB LED pin header                   | Y |

### Rear panel I/O ports

|   |                        |
|---|------------------------|
| USB 2.0 ports quantity                          | 4                      |
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity |                        |
| USB 3.2 Gen 2 (3.1 Gen 2) Type-A ports quantity |                        |
| USB 3.2 Gen 2x2 Type-C ports quantity           | 1                      |
| Ethernet LAN (RJ-45) ports                      | 1                      |
| HDMI ports quantity                             | 1                      |
| HDMI version                                    | 2.0                    |
| DisplayPorts quantity                           | 1                      |
| DisplayPort version                             | 1.2                    |
| Headphone outputs                               | 2                      |
| Microphone in                                   | Y                      |
| S/PDIF out port                                 | Y                      |
| WiFi-AP antenna jack                            | 2                      |
| USB connector type                              | USB Type-A, USB Type-C |

Preisänderungen und Irrtümer vorbehalten. Alle Produkte solange der Vorrat reicht.