

MB-GZ590VD+WT

Gigabyte Z590 Vision D Z590 Express Chipset Gen 10 / 11 LGA 1200 ATX Motherboard with Wifi & Thunderbolt4

Product Overview

Gigabyte Z590 Vision D + Wifi+Thunderbolt4: all-in-one LGA 1200 (coMet lake) Motherboard - with Direct 12+1 phase digital VRM, pre-mounted I/O shield with thermal armor + RGB Fusion 2.0, Addressable LED Strip Support, 2x copper PCBs design, MoSFET heatsinks with copper heatpipe, SmartFan6 with 10x temperature sensors + 8x hybrid fan headers, solid pin power connectors (ATX 24+8+4pin), memory armor with stainless steel shielding, PCIe armor with stainless steel shielding + double locking bracket, with VisionLink Thunderbolt 4.0 - Intel Z590 chipset, 4x dual channel DDR4-3200 with XMP support up to 128Gb, 6x SATA6G + triple (Gen4x4 + 2xGen3x4) M.2/NGFF with thermal guards (PCIe or SATA or Optane mode) with raid 0/1/0+1/5/10, on-board display with 2x Thunderbolt4(40GBPs) / type-C + HDMI dual output (depends on CPU) + DP input from graphics card for 4K through Thunderbolt + Realtek ALC4080 7.1 HD audio + optical s/pdif out + dual Intel 2.5Gb LAN with cFosSpeed Internet Accelerator + Intel Wifi-6E AX210 dual band 2.4/5Gbps WiFi + Bluetooth; 1x pci-e(1x), 3x PCI-Ex16 (Gen4@16x + Gen4@8x + Gen3@4x) for Quad-GPU CrossfireX (no SLi), with 2x Thunderbolt4(40GBPs) / type-C + 1x USB3 type-C (Gen2 10GBPs) + 2x USB3 type-A (Gen2 10GBPs) + 4x USB3 (Gen1 5GBPs), bundled Norton internet security - ATX



Specifications

Features:

See The Passion of Creation Vision Series

VISION Series motherboards are built for creator pc. It featured with reliable performance, impressive connectivity, expandable on graphics, and ultra-fast storage for creators to deal with heavy design workloads such as video editing and 3D rendering. It's the perfect fit for DIY creators to build their own ideal machine.

Go Further Without More Cables

GIGABYTE VisionLINK is an extension of your idea and creation. Transmitting data, video output, and power charging all through one USB Type-C® cable will simplify the user experience than ever. With seamless multitasking between your PC and devices, it lets you work like a pro.

All at One Cable that Does It All

Did you experience your pen display connecting to the PC with lots of cables? GIGABYTE VisionLINK lets you not only without cable clutter, but also the benefit of data, video, and power charging the same time. One USB Type-C® cable connected, turn your workspace into neat and tidy.

VisionLINK TB, Your Thunderbolt™ 4

GIGABYTE VisionLINK TB is based on Thunderbolt™ 4, delivers 40Gb/s high-bandwidth speeds, data, video, 60W power, and USB4™ specification compliance devices with the simplicity of just one cable. One simple connectivity to make your work better than ever.

Add Graphic Power to You

Ever wondered if you can have a high-end graphic performance of your pen display? The DisplayPort™_In design provides the external graphic performance and the superior GPU ability for your pen display to use it. It brings your creation with incredible realism and performance.

Connect devices you have. Like a Pro

Creators engaged in drawing work usually connect with a high-end pen display. Now, it can even be directly presented on the big screen to discuss more details or real-time rendering during the proposal. Meanwhile, they can have a daisy chain of multiple Thunderbolt devices together and ultimately end up with just one cable to make the connectivity to be simple.

High-Bandwidth and Low-Latency access.

With the dual Intel® 2.5GbE LAN design, you'll benefit from increased bandwidth for transfer speed, automated load balancing for smoother data flow, and instant failover if anything goes wrong.

Intel® Wi-Fi 6 for our connected lives

Intel® Wireless solution supports 802.11ax, enables gigabit wireless performance, provides smooth video streaming, fewer dropped connections, dealing with increasingly larger file sizes, and speeds up to 2.4Gbps*. Moreover, providing better WIFI signal strength of the antenna design compared to a traditional antenna.

No Hassle Connection.

To feature the USB 3.2 Gen2x2 connectivity design, which is double performance than the current USB3.2 Gen2. It works up to 20Gbps ultra-fast data transfer while connecting to USB 3.2 compliant peripherals. You can enjoy the ultimate connection flexibility to access and store massive amounts of data rapidly.

Make Your Expandability Flexible.

Multi-graphics configurations offer better graphics performance for applications that demand the highest frame rates without compromising on resolution.

Full PCIe 4.0* Design

For most prosumers and content creators, high bandwidth storage and high performance graphics card or accelerator cards are critical for their projects. This is especially true for 3D rendering and creating high resolution textures. To support most cutting edge devices, this motherboard support variety of PCIe 4.0* devices, including graphics card and M.2 SSD.

PCIe Bandwidth*

Up to 31.58GB/s from new PCIe 4.0 x16 slot designs for the next generation add on cards need tremendous bandwidth, including the graphics card, deep learning accelerator card, and the video capture card.

Bring your tasks without lag.

The maximum memory capacity on the Z590 motherboard is 128GB with the single slot supports up to 32GB. You can experience fast performance while working on complex design tasks, and getting real-time results.

Faster Speed. More Space.

To feature with triple M.2 connectors for extending storage available. M.2 PCIe SSD gives you 7X faster data transferring experience compared to 2.5" SATA solid-state drives. Enable the creativity to flow from thought to draft faster and get responsive performance without a wait.

NVMe PCIe x4 M.2

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Product Specification Sheet

GIGABYTE M.2 solution provides considerably high storage performance and provides ideal storage with RAID modes. To offer the best configuration in terms of NVMe storage for creators who demand high capacity, fast storage options, and complex 3D model rendering.

Cooling Technology

An effective cooling solution is essential for a heavy design workload to get away with slow down, crashes, and unexpected shutdown. Unconventional Heatsinks is designed for better thermal dissipation but also aesthetically appealing to creators. A heat pipe connects a giant curved heatsink and micro cube heatsink that can fully cover the VRM area. It ensures the heat can be dissipated efficiently.

M.2 Thermal Guard

GIGABYTE provides an Ultra-Efficient thermal solution for the latest PCIe 4.0 M.2 SSD drives. The unique M.2 Thermal Guard prevents all the M.2 SSD from thermal throttling and dissipates heat before it becomes an issue.

Smart Fan 6

Numerous hybrid fan headers and temperature sensors are planted on the motherboard to monitor in real time and configure fan mode to fit different workloads via Smart Fan 6. Creators are allowed to set the trigger point to activate the fan and its corresponding speed. The fan completely stops when performing light tasks to avoid noise.

Specifications:

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Specifications

Product Code	MB-GZ590VD+WT
CPU	LGA1200 package:
	1. 11th Generation Intel Core i9 processors / Intel Core i7 processors / Intel Core i5 processors
	2. 10th Generation Intel Core i9 processors / Intel Core i7 processors / Intel Core i5 processors / Intel Core i3 processors/ Intel Pentium processors / Intel Celeron processors
	* Limited to processors with 4 MB Intel Smart Cache, Intel Celeron G5xx5 family.
	3. L3 cache varies with CPU
Chipset	1. Intel Z590 Express Chipset

Memory	1. 11th Generation Intel Core i9/i7/i5 processors:
	Support for DDR4 5333(O.C.)/ DDR4 5133(O.C.)/DDR4 5000(O.C.)/4933(O.C.)/4800(O.C.)/ 4700(O.C.)/ 4600(O.C.)/ 4500(O.C.)/ 4400(O.C.)/ 4300(O.C.)/4266(O.C.) / 4133(O.C.) / 4000(O.C.) / 3866(O.C.) / 3800(O.C.) / 3733(O.C.) / 3666(O.C.) / 3600(O.C.) / 3466(O.C.) / 3400(O.C.) / 3333(O.C.) / 3300(O.C.) / 3200(O.C.) / 3000(O.C.) / 2933 / 2800 / 2666 / 2400 / 2133 MHz memory modules
	2. 10th Generation Intel Core i9/i7 processors:
	Support for DDR4 2933/2666/2400/2133 MHz memory modules
	3. 10th Generation Intel Core i5/i3/Pentium /Celeron processors:
	Support for DDR4 2666/2400/2133 MHz memory modules
	4. 4 x DDR4 DIMM sockets supporting up to 128 GB (32 GB single DIMM capacity) of system memory
	5. Dual channel memory architecture
	6. Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules (operate in non-ECC mode)
	7. Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules
	8. Support for Extreme Memory Profile (XMP) memory modules
Onboard Graphics	Integrated Graphics Processor+Intel Thunderbolt 4 Controller:
	1. 1 x VisionLINK TB connector (Intel Thunderbolt 4/USB Type-C port)
	2. 1 x Intel Thunderbolt 4 connector (USB Type-C port)
	* The Intel Thunderbolt 4 connectors support DisplayPort and Thunderbolt video outputs and a maximum resolution of 5120x2880@60 Hz with 24 bpp (via single display output)
	* Because of the limited I/O resources of the PC architecture, the number of Thunderbolt devices that can be used is dependent on the number of the PCI Express devices being installed. (Refer to Chapter 1-7, "Back Panel Connectors, " for more information.)
	* Support for DisplayPort 1.4 version and HDCP 2.3.
	Integrated Graphics Processor-Intel HD Graphics support:
	1. 1 x HDMI port, supporting a maximum resolution of 4096x2160@30 Hz
	* Support for HDMI 1.4 version and HDCP 2.3.
	(Graphics specifications may vary depending on CPU support.)
Audio	1. Realtek ALC4080 codec
	2. Support for DTS:X Ultra
	3. High Definition Audio
	4. 2/4/5.1/7.1-channel
	5. Support for S/PDIF Out
LAN	1. 2 x Intel 2.5GbE LAN chips (2.5 Gbit/1 Gbit/100 Mbit)

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Wireless Communication module	Intel Wi-Fi 6 AX200
	1. WIFI a, b, g, n, ac, ax, supporting 2.4/5 GHz Dual-Band
	2. BLUETOOTH 5.1
	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.
Expansion Slots	1. 1 x PCI Express x16 slot, 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.
	2. 1 x PCI Express x16 slot, running at x8 (PCIEX8)
	* The PCIEX8 slot shares bandwidth with the PCIEX16 slot. When the PCIEX8 slot is populated, the PCIEX16 slot operates at up to x8 mode.
	(The PCIEX16 and PCIEX8 slots conform to PCI Express 4.0 standard.)
	* Supported by 11th Generation processors only.
	3. 1 x PCI Express x16 slot, running at x4 (PCIEX4)
	* The PCIEX4 slot shares bandwidth with the M2P_SB connector. The PCIEX4 slot operates at up to x2 mode when a PCIe SSD is installed in the M2P_SB connector.
	4. 1 x PCI Express x1 slot
	(The PCIEX4 and PCI Express x1 slots conform to PCI Express 3.0 standard.)
Multi-Graphics Technology	1. Support for AMD Quad-GPU CrossFire and 2-Way AMD CrossFire technologies
Storage Interface	CPU:
	1. 1 x M.2 connector (Socket 3, M key, type 2280/22110 PCIe 4.0 x4/x2 SSD support) (M2A_CPU)
	* Supported by 11th Generation processors only.
	Chipset:
	1. 1 x M.2 connector (Socket 3, M key, type 2280/22110 SATA and PCIe 3.0 x4/x2 SSD support) (M2M_SB)
	2. 1 x M.2 connector (Socket 3, M key, type 2260/2280/22110 PCIe 3.0 x4/x2 SSD support) (M2P_SB)
	3. 6 x SATA 6Gb/s connectors
	Support for RAID 0, RAID 1, RAID 5, and RAID 10
	* Refer to "1-8 Internal Connectors, " for the installation notices for the PCIEX4, M.2, and SATA connectors.
	Intel Optane Memory Ready

USB	Chipset+Intel Thunderbolt 4 Controller:
	1. 2 x USB Type-C ports on the back panel, with USB 3.2 Gen 2 support
	Chipset:
	1. 1 x USB Type-C port with USB 3.2 Gen 2x2 support, available through the internal USB header
	2. 2 x USB 3.2 Gen 2 Type-A ports (red) on the back panel
	3. 2 x USB 3.2 Gen 1 ports available through the internal USB header
	Chipset+USB 3.2 Gen 1 Hub:
	1. 4 x USB 3.2 Gen 1 ports on the back panel
	Chipset+USB 2.0 Hub:
	1. 4 x USB 2.0/1.1 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. 4 x system fan headers
	7. 2 x system fan/water cooling pump headers
	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 2x2 support
	15. 1 x USB 3.2 Gen 1 header
	16. 2 x USB 2.0/1.1 headers
	17. 1 x noise detection header
	18. 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0 module only)
	19. 2 x temperature sensor headers
	20. 1 x Clear CMOS jumper
	21. 1 x Q-Flash Plus button

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Product Specification Sheet

Back Panel Connectors	1. 1 x DisplayPort In port
	2. 1 x HDMI port
	3. 2 x SMA antenna connectors (2T2R)
	4. 2 x Thunderbolt 4 connectors (USB Type-C port, with USB 3.2 Gen 2 support)
	5. 2 x USB 3.2 Gen 2 Type-A ports (red)
	6. 4 x USB 3.2 Gen 1 ports
	7. 2 x RJ-45 ports
	8. 1 x optical S/PDIF Out connector
	9. 5 x audio jacks
I/O Controller	1. iTE I/O Controller Chip
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	7. Noise detection
	1. 1 x 256 Mbit flash
	2. Use of licensed AMI UEFI BIOS
Unique Features	3. PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
	1. Support for APP Center
	* Available applications in APP Center may vary by motherboard model. Supported functions of each application may also vary depending on motherboard specifications.
	@BIOS
	EasyTune
	Fast Boot
	Game Boost
	ON/OFF Charge
	RGB Fusion
	Smart Backup
	System Information Viewer
	2. Support for Q-Flash Plus
	3. Support for Q-Flash
	4. Support for Xpress Install

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Product Specification Sheet

Bundled Software	1. Norton Internet Security (OEM version)
	2. cFosSpeed
Operating System	1. Support for Windows 10 64-bit
Form Factor	1. 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-GZ590VD-WT-Gigabyte-Z590-Vision-D-Z590-Express-Chipset-Buy-p-252419.php>

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