CPU

- LGA1700 socket: Support for 12th Generation Intel Core™ i9 processors/Intel Core™ i7 processors/Intel Core™ i5 processors
- 2. L3 cache varies with CPU

(Please refer to "CPU Support List" for more information.)

Chipset

Memory

1. Intel Z690 Express Chipset

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 / 3000 / 2933 / 2800 / 2666 / 2400 /

1. Support for DDR4 5333(O.C.)/ DDR4 5133(O.C.)/DDR4

- 2133 MHz memory modules
- 2. 4 x DDR DIMM sockets supporting up to 128 GB (32 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

(Go to GIGABYTE's website for the latest supported memory speeds and memory modules.)

Integrated Graphics Processor-Intel HD Graphics support:

Onboard Graphics

- 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 Hz
 - * Support for DisplayPort 1.2 version and HDCP 2.3

(Graphics specifications may vary depending on CPU support.)

- 1. Realtek Audio CODEC
- 2. High Definition Audio
- 3. 2/4/5.1/7.1-channel

Audio

- * To configure 7.1-channel audio, you need to open the audio software and select Device advanced settings > Playback Device to change the default setting first. Please visit GIGABYTE's website for details on configuring the audio software.
- 4. Support for S/PDIF Out

1. Realtek 2.5GbE LAN chip (2.5 Gbps/1 Gbps/100 Mbps)

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.

(The PCIEX16 slot conforms to PCI Express 5.0 standard.)

- 2. 1 x PCI Express x16 slot, running at x4 (PCIEX4)
- 3. 1 x PCI Express x16 slot, running at x1 (PCIEX1 4)
- 4. 2 x PCI Express x1 slots (The PCIEX4 and PCIEX1 slots conform to PCI Express 3.0 standard.)

Multi-Graphics Technology

1. Support for AMD Quad-GPU CrossFire™ and 2-Way AMD CrossFire™ technologies

CPU:

1. 1 x M.2 connector (Socket 3, M key, type 2260/2280/22110 PCIe 4.0 x4/x2 SSD support) (M2A CPU)

Chipset:

Storage Interface

USB

- 1. 1 x M.2 connector (Socket 3, M key, type 2260/2280 PCIe 4.0 x4/x2 SSD support) (M2P_SB)
- 2. 1 x M.2 connector (Socket 3, M key, type 2260/2280 PCIe 4.0 x4/x2 SSD support) (M2Q SB)
- 3. 6 x SATA 6Gb/s connectors

Support for RAID 0, RAID 1, RAID 5, and RAID 10

Intel Optane™ Memory Ready

 * System acceleration with Intel Optane $^{\top}$ Memory can only be enabled on the M.2 connectors supported by the Chipset.

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 1 support, available through the internal USB header
- 3. 1 x USB 3.2 Gen 2 Type-A ports (red) on the back panel
- 4. 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 S/PDIF Out header
- 15. 1 x USB Type-C header, with USB 3.2 Gen 1 support
- 16. 1 x USB 3.2 Gen 1 header
- 17. 2 x USB 2.0/1.1 headers
- 18. 1 x serial port header
- 19. 2 x Thunderbolt™ add-in card connectors
- 20. 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI/GC-TPM2.0 SPI 2.0 module only)
- 21. 1 x reset button
- 22. 1 x reset jumper
- 23. 1 x Q-Flash Plus button
- 24. 1 x Clear CMOS jumper

 \star All fan headers are subject to support AIO_Pump, Pump and high performance fan with the capability of delivering up to 2A/12V @ 24W.

- 1. 1 x PS/2 keyboard/mouse port
- 2. 1 x DisplayPort
- 3. 1 x HDMI port
- 4. 1 x USB Type-C port, with USB 3.2 Gen 2x2 support
- 5. 1 x USB 3.2 Gen 2 Type-A port (red)
- 6. 4 x USB 3.2 Gen 1 ports
- 7. 4 x USB 2.0/1.1 ports
- 8. 1 x RJ-45 port
- 9. 3 x audio jacks

I/O Controller

Back Panel

Connectors

1. iTE I/O Controller Chip

- 1. Voltage detection
- 2. Temperature detection
- 3. Fan speed detection
- 4. Water cooling flow rate detection
- H/W Monitoring
- 5. Fan fail warning6. Fan speed control
 - * Whether the fan (pump) speed control function is supported will depend on the fan (pump) you install.

- 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

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

Bundled Software

Unique Features

- 1. Norton Internet Security (OEM version)
- 2. Realtek Gaming LAN Bandwidth Control Utility

Operating System

- 1. Support for Windows 11 64-bit
- 2. Support for Windows 10 64-bit

Form Factor

1. ATX Form Factor; 30.5cm x 24.4cm

^{*} The entire materials provided herein are for reference only. GIGABYTE reserves the right to modify or revise the content at anytime without prior notice.

^{*} Advertised performance is based on maximum theoretical interface values from respective Chipset vendors or organization who defined the interface specification. Actual performance may vary by system configuration.

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^{*} Due to standard PC architecture, a certain amount of memory is reserved for system usage and therefore the actual memory size is less than the stated amount.