

- CPU
  1. Support for 7<sup>th</sup>/6<sup>th</sup> Generation Intel<sup>®</sup> Core™ i7 processors/Intel<sup>®</sup> Core™ i5 processors/ Intel<sup>®</sup> Core™ i3 processors/Intel<sup>®</sup> Pentium<sup>®</sup> processors/ Intel<sup>®</sup> Celeron<sup>®</sup> processors in the LGA1151 package
    - \* For 7<sup>th</sup> Generation Intel<sup>®</sup> Core™ processors support need to update the latest BIOS.
  2. L3 cache varies with CPU

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

- Chipset
  1. Intel<sup>®</sup> Z170 Express Chipset
- Memory
  1. 4 x DDR4 DIMM sockets supporting up to 64 GB of system memory
    - \* Due to a Windows 32-bit operating system limitation, when more than 4 GB of physical memory is installed, the actual memory size displayed will be less than the size of the physical memory installed.
  2. Dual channel memory architecture
  3. Support for DDR4 3866(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.) /2800(O.C.) /2666(O.C.) /2400(O.C.) /2133 MHz memory modules
  4. Support for ECC UDIMM 1Rx8/2Rx8 memory modules (operate in non-ECC mode)
  5. Support for non-ECC UDIMM 1Rx8/2Rx8/1Rx16 memory modules
  6. Support for Extreme Memory Profile (XMP) memory modules

(Please refer "Memory Support List" for more information.)

- Onboard Graphics

Integrated Graphics Processor-Intel<sup>®</sup> HD Graphics support:

1. 1 x DisplayPort, supporting a maximum resolution of 4096x2304@60 Hz
  - \* Support for DisplayPort 1.2 version.

Š Š Integrated Graphics Processor+MegaChips MCDP2800 chip:

2. 1 x HDMI 2.0 port
  - Requires the latest Intel<sup>®</sup> Graphic Driver from [GIGABYTE website](#).

Maximum shared memory of 1024 MB

- Audio
  1. Creative<sup>®</sup> Sound Core 3D chip
  2. Support for Sound Blaster Recon3Di
  3. TI Burr Brown<sup>®</sup> OPA2134 operational amplifier

4. High Definition Audio
  5. 2/5.1-channel
  6. Support for S/PDIF Out
- LAN
    1. 1 x Intel® GbE LAN chip (10/100/1000 Mbit)(LAN1)
    2. 1 x Killer E2400 chip (10/100/1000 Mbit) (LAN2)
      - \* Teaming is not supported.
  - 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 will operate at up to x8 mode.
    3. 1 x PCI Express x16 slot, running at x4 (PCIEX4)
      - \* The PCIEX4 slot shares bandwidth with the M2H\_32G connector. The PCIEX4 slot will become unavailable when an SSD is installed in the M2H\_32G connector.
    4. 3 x PCI Express x1 slots
      - (All of the PCI Express slots conform to PCI Express 3.0 standard.)
  - Storage Interface

Chipset:

1. 2 x M.2 Socket 3 connectors (Socket 3, M key, type 2242/2260/2280 SATA & PCIe x4/x2/x1 SSD support)
2. 3 x SATA Express connectors
3. 6 x SATA 6Gb/s connectors (SATA3 0~5)
4. Support for RAID 0, RAID 1, RAID 5, and RAID 10
  - \* Refer to "1-10 Internal Connectors," for the supported configurations with the M.2, SATA Express, and SATA connectors.

ASMedia® ASM1061 chip:

5. 2 x SATA 6Gb/s connectors (SATA3 6~7), supporting AHCI mode only
- Multi-Graphics Technology
    1. Support for NVIDIA® Quad-GPU SLI™ and 2-Way NVIDIA® SLI™ technologies
    2. Support for AMD Quad-GPU CrossFireX™ and 3-Way/2-Way AMD CrossFire™ technologies
  - USB

Chipset:

1. 5 x USB 3.0/2.0 ports on the back panel
2. 4 x USB 2.0/1.1 ports (available through the internal USB headers)

Chipset+Renesas<sup>®</sup> USB 3.0 Hub:

3. 4 x USB 3.0/2.0 ports (available through the internal USB headers)

Chipset+Intel<sup>®</sup> Thunderbolt™ 3 Controller:

4. 1 x USB Type-C™ port on the back panel, with USB 3.1 support
  5. 1 x USB 3.1 Type-A port (red) on the back panel
- Internal I/O Connectors
    1. 1 x 24-pin ATX main power connector
    2. 1 x 8-pin ATX 12V power connector
    3. 2 x M.2 Socket 3 connectors
    4. 3 x SATA Express connectors
    5. 8 x SATA 6Gb/s connectors
    6. 1 x I/O shield audio LED power connector
    7. 1 x CPU fan header
    8. 1 x water cooling fan header (CPU\_OPT)
    9. 3 x system fan headers
    10. 1 x front panel header
    11. 1 x front panel audio header
    12. 2 x USB 3.0/2.0 headers
    13. 2 x USB 2.0/1.1 headers
    14. 1 x Trusted Platform Module (TPM) header
    15. 1 x serial port header
    16. 1 x Clear CMOS jumper
    17. 1 x power button
    18. 1 x reset button
    19. 1 x Clear CMOS button
    20. 1 x ECO button
    21. 1 x OC button
    22. 1 x audio gain control switch
    23. Voltage Measurement Points
    24. 1 x BIOS switch
  - Back Panel Connectors
    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 3.1 support
    5. 1 x USB 3.1 Type-A port (red)
    6. 5 x USB 3.0/2.0 ports
    7. 2 x RJ-45 ports
    8. 1 x optical S/PDIF Out connector
    9. 5 x audio jacks (Center/Subwoofer Speaker Out, Rear Speaker Out, Line In/Mic In, Line Out, Headphone)
  - I/O Controller
    1. iTE<sup>®</sup> I/O Controller Chip

- H/W Monitoring
  1. System voltage detection
  2. CPU/System/Chipset temperature detection
  3. CPU/CPU OPT/System fan speed detection
  4. CPU/System/Chipset overheating warning
  5. CPU/CPU OPT/System fan fail warning
  6. CPU/CPU OPT/System fan speed control
    - \* Whether the fan speed control function is supported will depend on the cooler you install.
- BIOS
  1. 2 x 128 Mbit flash
  2. Use of licensed AMI UEFI BIOS
  3. Support for DualBIOS™
  4. PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0
- Unique Features
  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.
    - 3D OSD
    - @BIOS
    - Ambient LED
    - AutoGreen
    - Cloud Station
    - EasyTune
    - Easy RAID
    - Fast Boot
    - Smart TimeLock
    - Smart Keyboard
    - Smart Backup
    - System Information Viewer
    - USB Blocker
  2. Support for Q-Flash
  3. Support for Smart Switch
  4. Support for Xpress Install
- Bundle Software
  1. Norton® Internet Security (OEM version)
  2. Intel® Smart Response Technology
- Operating System
  1. Windows® 10 64-bit (for 7<sup>th</sup> Generation Intel® Processors)
  2. Windows® 10 64-bit / Windows® 8.1 64-bit / Windows® 7 32-bit / 64-bits (for 6<sup>th</sup> Generation Intel® Processors)
    - \* Please download the "Windows USB Installation Tool" from GIGABYTE's website and install it before installing Windows 7.
- Form Factor
  1. ATX Form Factor; 30.5cm x 24.4cm

- Box Contents
  1. GA-Z170X-Gaming 7 motherboard
  2. Motherboard driver disk
  3. User's Manual
  4. Quick Installation Guide
  5. Four SATA cables
  6. I/O Shield
  7. One 2-Way SLI bridge connector
  8. One G Connector
  9. One pack of back I/O dust covers
- Remark
  1. Due to different Linux support condition provided by chipset vendors, please download Linux driver from chipset vendors' website or 3rd party website.
  2. Most hardware/software vendors may no longer offer drivers to support Win9X/ME/2000/XP. If drivers are available from the vendors, we will update them on the GIGABYTE website.

\* 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.

\* All trademarks and logos are the properties of their respective holders.

\* 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.