- **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

  (Please refer to "CPU Support List" for more information.)
- **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 / 3000 / 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

  (Please refer "Memory Support List" for more information.)
- **Onboard Graphics**

  Integrated Graphics Processor-Intel® HD Graphics support:
  1. 1 x USB Type-C® port, supporting USB Type-C® and DisplayPort video outputs and a maximum resolution of 4096x2304@60 Hz.

    * Support for drawing tablets and 20V@3A of power delivery.
    *Support for DisplayPort 1.2 version and HDCP 2.3
  2. 1 x HDMI port, supporting a maximum resolution of 4096x2160@30 Hz
    * Support for HDMI 1.4 version and HDCP 2.3.
(Supported graphics specifications may vary depending on CPU or graphics card used.)

- **Audio**
  1. Realtek® ALC4080 codec
  2. High Definition Audio
  3. 2/4/5.1/7.1-channel
  4. Support for S/PDIF Out
- **LAN**
  1. Intel® 2.5GbE LAN chip (2.5 Gbit/1 Gbit/100 Mbit
- **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 shares bandwidth with the M2B_CPU and M2C_CPU connectors. The PCIEX16 slot operates at up to x8 mode when a device is installed in the M2B_CPU or M2C_CPU connector. (The PCIEX16 slot conforms to PCI Express 4.0 standard.)*
     *Supported by 11th Generation processors only.
  2. 2 x PCI Express x16 slots, running at x4 (PCIEX4_1/PCIEX4_2)
     (The PCIEX4 slot conforms 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 2260/2280/22110 PCIe 4.0 x4/x2 SSD support) (M2A_CPU)*
     * Supported by 11th Generation processors only.
  2. 2 x M.2 connectors (Socket 3, M key, type 2260/2280/22110 PCIe 4.0* x4/x2 SSD support) (M2B_CPU)(M2C_CPU)
  Chipset:
  3. 1 x M.2 connector (Socket 3, M key, type 2260/2280/22110 SATA and PCIe 3.0 x4/x2 SSD support) (M2P_SB)
  4. 6 x SATA 6Gb/s connectors
  Support for RAID 0, RAID 1, RAID 5, and RAID 10
  * Refer to "1-7 Internal Connectors," for the installation notices for the

M.2 and SATA connectors.
Intel® Optane™ Memory Ready

- **USB**
  Chipset:
    1. 2 x USB Type-C® ports, with USB 3.2 Gen 2x2 support (1 port on the back panel, 1 port available through the internal USB header)
    2. 1 x USB Type-C® port on the back panel, with USB 3.2 Gen 1 support
    3. 2 x USB 3.2 Gen 2 Type-A ports (red) on the back panel
    4. 2 x USB 3.2 Gen 1 ports available through the internal USB header
    5. 2 x USB 2.0/1.1 ports on the back panel
  Chipset+USB 3.2 Gen 1 Hub:
    6. 4 x USB 3.2 Gen 1 ports on the back panel
  Chipset+USB 2.0 Hub:
    7. 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 addressable LED strip headers
    8. 2 x RGB LED strip headers
    9. 6 x SATA 6Gb/s connectors
    10. 4 x M.2 Socket 3 connectors
    11. 1 x front panel header
    12. 1 x front panel audio header
    13. 1 x S/PDIF Out header
    14. 1 x USB Type-C® header, with USB 3.2 Gen 2x2 support
    15. 1 x USB 3.2 Gen1 header
    16. 2 x USB 2.0/1.1 headers
    17. 1 x Trusted Platform Module header (For the GC-TPM2.0 SPI / GC-TPM2.0 SPI 2.0 module only)
    18. 2 x Thunderbolt™ add-in card connectors
    19. 1 x serial port header
    20. 1 x Clear CMOS jumper
    21. 1 x Q-Flash Plus button
    22. 1 x noise detection header
  ＊All fan headers are subject to support AIO_Pump, Pump and high performance fan with the capability of delivering up to 2A/12V @ 24W.
- **Back Panel Connectors**

1. 2 x USB 2.0/1.1 ports
2. 1 x PS/2 keyboard/mouse port
3. 4 x USB 3.2 Gen 1 ports
4. 1 x DisplayPort In port
5. 1 x HDMI port
6. 2 x USB 3.2 Gen2 Type-A ports
7. 1 x USB Type-C® port, with USB 3.2 Gen 2x2 support
8. 1 x USB Type-C® port, with USB 3.2 Gen 1 support
9. 1 x RJ-45 port
10. 6 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 speed control function is supported will depend on the cooler you install.
    7. Noise detection
- **BIOS**
    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
- **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.
       @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**
    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