



184.95 EUR  
incl. 19% VAT, plus [shipping](#)

- Gigabyte Features !
- 2x M.2 slot !
- USB Type-C !
- Displayport/HDMI !



- Supports 9th and 8th Gen Intel® Core™ Processors
- Dual Channel Non-ECC Unbuffered DDR4, 2 DIMMs
- Intel® Optane™ Memory Ready
- 6 Phases IR Digital VRM Solution with PowIRstage
- Advanced Thermal Design with Extended Fin Heatsink
- Onboard Intel® CNVi 802.11ac 2x2 Wave 2 Wi-Fi
- ALC1220-VB Enhance 114dB(Rear)/ 110dB(Front) SNR in Microphone with NICHICON Audio Capacitors
- Intel® Gigabit LAN with cFosSpeed
- RGB FUSION 2.0 with Multi-Zone Addressable LED Light Show Design, Supports Addressable LED & RGB LED Strips
- Smart Fan 5 features Multiple Temperature Sensors and Hybrid Fan Headers with FAN STOP
- Front USB 3.1 Gen 1 Type-C™ Header
- Dual Ultra-Fast M.2 with PCIe Gen3 x4 interface, one with Thermal Guard
- CEC 2019 Ready, Save Power With a Simple Click

**CPU**

1. Support for 9th and 8th Generation Intel® Core™ i9 processors/Intel® Core™ i7 processors/Intel® Core™ i5 processors/Intel® Core™ i3 processors/Intel® Pentium® processors/Intel® Celeron® processors in the LGA1151 package
2. L3 cache varies with CPU  
(Please refer "CPU Support List" for more information.)

**Chipset**

1. Intel® Z390 Express Chipset

<b>Memory</b>	<ol style="list-style-type: none"><li>2 x DDR4 DIMM sockets supporting up to 32 GB of system memory</li><li>Dual channel memory architecture</li><li>Support for DDR4 4400(O.C.) / 4333(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.) / 2800(O.C.) / 2666 / 2400 / 2133 MHz memory modules</li><li>Support for ECC Un-buffered DIMM 1Rx8/2Rx8 memory modules (operate in non-ECC mode)</li><li>Support for non-ECC Un-buffered DIMM 1Rx8/2Rx8/1Rx16 memory modules</li><li>Support for Extreme Memory Profile (XMP) memory modules (Please refer "Memory Support List" for more information.)</li></ol>
<b>Onboard Graphics</b>	<p>Integrated Graphics Processor+MegaChips MCDP2800 chip:</p> <ol style="list-style-type: none"><li>1 x HDMI port, supporting a maximum resolution of 4096x2160@60 Hz * Support for HDMI 2.0 version, HDCP 2.2, and HDR.</li></ol> <p>Integrated Graphics Processor-Intel® HD Graphics support:</p> <ol style="list-style-type: none"><li>1 x DisplayPort, supporting a maximum resolution of 4096x2304@60 Hz * Support for DisplayPort 1.2 version, HDCP 2.2, and HDR.</li></ol> <p>Maximum shared memory of 1 GB Actual support may vary by CPU.</p>
<b>Audio</b>	<ol style="list-style-type: none"><li>Realtek® ALC1220-VB codec * The back panel line out jack supports DSD audio.</li><li>High Definition Audio</li><li>2/4/5.1/7.1-channel</li><li>Support for S/PDIF Out</li></ol>
<b>LAN</b>	<ol style="list-style-type: none"><li>Intel® GbE LAN chip (10/100/1000 Mbit)</li></ol>
<b>Wireless Communication module</b>	<ol style="list-style-type: none"><li>Intel® CNVi interface Wi-Fi 802.11a/b/g/n/ac, supporting 2.4/5 GHz Dual-Band</li><li>BLUETOOTH 5</li><li>Support for 11ac 160 MHz wireless standard and up to 1.73 Gbps data rate * Actual data rate may vary depending on environment and equipment.</li></ol>
<b>Expansion Slots</b>	<ol style="list-style-type: none"><li>1 x PCI Express x16 slot, running at x16</li><li>1 x M.2 Socket 1 connector for an Intel® CNVi wireless module only (CNVI)</li></ol> <p>Chipset:</p> <ol style="list-style-type: none"><li>1 x M.2 connector (Socket 3, M key, type 2242/2260/2280 SATA and PCIe x4/x2 SSD support) (M2P)</li><li>1 x M.2 connector on the back of the motherboard (Socket 3, M key, type 2260/2280 SATA and PCIe x4/x2 SSD support) (M2M)</li></ol>
<b>Storage Interface</b>	<ol style="list-style-type: none"><li>4 x SATA 6Gb/s connectors</li><li>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.</li></ol> <p>Intel® Optane™ Memory Ready</p>

	Chipset:
<b>USB</b>	<ol style="list-style-type: none"><li>1 x USB Type-C™ port with USB 3.1 Gen 1 support, available through the internal USB header</li><li>1 x USB Type-C™ port on the back panel, with USB 3.1 Gen 2 support</li><li>1 x USB 3.1 Gen 2 Type-A port (red) on the back panel</li><li>6 x USB 3.1 Gen 1 ports (4 ports on the back panel, 2 ports available through the internal USB header)</li><li>2 x USB 2.0/1.1 ports available through the internal USB header</li></ol>
<b>Internal I/O Connectors</b>	<ol style="list-style-type: none"><li>1 x 24-pin ATX main power connector</li><li>1 x 8-pin ATX 12V power connector</li><li>1 x CPU fan header</li><li>2 x system fan headers</li><li>1 x digital LED strip header</li><li>1 x digital LED strip power select jumper</li><li>1 x RGB LED strip header</li><li>4 x SATA 6Gb/s connectors</li><li>2 x M.2 Socket 3 connectors</li><li>1 x front panel header</li><li>1 x front panel audio header</li><li>1 x speaker header</li><li>1 x USB Type-C™ port, with USB 3.1 Gen 1 support</li><li>1 x USB 3.1 Gen 1 header</li><li>1 x USB 2.0/1.1 header</li><li>1 x Trusted Platform Module (TPM) header (2x6 pin, for the GC-TPM2.0_S module only)</li><li>1 x Clear CMOS jumper</li><li>1 x chassis intrusion header</li></ol>
<b>Back Panel Connectors</b>	<ol style="list-style-type: none"><li>1 x DisplayPort</li><li>1 x HDMI port</li><li>1 x USB Type-C™ port, with USB 3.1 Gen 2 support</li><li>1 x USB 3.1 Gen 2 Type-A port (red)</li><li>4 x USB 3.1 Gen 1 ports</li><li>1 x RJ-45 port</li><li>2 x SMA antenna connectors (2T2R)</li><li>1 x optical S/PDIF Out connector</li><li>5 x audio jacks</li></ol>
<b>I/O Controller</b>	<ol style="list-style-type: none"><li>iTE® I/O Controller Chip</li></ol>
<b>H/W Monitoring</b>	<ol style="list-style-type: none"><li>Voltage detection</li><li>Temperature detection</li><li>Fan speed detection</li><li>Overheating warning</li><li>Fan fail warning</li><li>Fan speed control</li></ol> <p>* Whether the fan speed control function is supported will depend on the cooler you install.</p>
<b>BIOS</b>	<ol style="list-style-type: none"><li>2 x 128 Mbit flash</li><li>Use of licensed AMI UEFI BIOS</li><li>Support for DualBIOS™</li><li>PnP 1.0a, DMI 2.7, WfM 2.0, SM BIOS 2.7, ACPI 5.0</li></ol>

**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  
AutoGreen  
Cloud Station  
EasyTune  
Easy RAID  
Fast Boot  
Game Boost  
ON/OFF Charge  
Platform Power Management  
RGB Fusion  
Smart Backup  
Smart Keyboard  
Smart TimeLock  
Smart HUD  
Smart Survey  
System Information Viewer  
USB Blocker

**Bundle Software**

2. Support for Q-Flash
  3. Support for Xpress Install
1. Norton® Internet Security (OEM version)
  2. cFosSpeed

**Operating System**

1. Support for Windows 10 64-bit

**Form Factor**

1. Mini-ITX Form Factor; 17.0cm x 17.0cm

**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.