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Safety information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.
- Your motherboard should only be used in environments with ambient temperatures between $0^\circ C$ and $40^\circ C$. 
About this guide
This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized
This guide contains the following parts:

- **Chapter 1: Product Introduction**
  This chapter describes the features of the motherboard and the new technology it supports. It includes description of the switches, jumpers, and connectors on the motherboard.

- **Chapter 2: Basic Installation**
  This chapter lists the hardware setup procedures that you have to perform when installing system components.

- **Chapter 3: BIOS and RAID Support**
  This chapter tells how to boot into the BIOS, upgrade BIOS using the EZ Flash Utility and support on RAID.

Where to find more information
Refer to the following sources for additional information and for product and software updates.

1. **ASUS website**
   The ASUS website (www.asus.com) provides updated information on ASUS hardware and software products.

2. **Optional documentation**
   Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Conventions used in this guide
To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.

- **CAUTION:** Information to prevent damage to the components and injuries to yourself when trying to complete a task.

- **IMPORTANT:** Instructions that you MUST follow to complete a task.

- **NOTE:** Tips and additional information to help you complete a task.
## ROG STRIX Z490-I GAMING specifications summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
</table>
| **CPU**               | Intel® Socket LGA1200 for 10th Gen Intel® Core™, Pentium® Gold and Celeron® processors*  
|                       | Supports Intel® 14 nm CPU  
|                       | Supports Intel® Turbo Boost Technology 2.0 and Intel® Turbo Boost Max Technology 3.0**  
|                       | * Refer to [www.asus.com](http://www.asus.com) for CPU support list.  
|                       | ** Intel® Turbo Boost Max Technology 3.0 support depends on the CPU types.                                                                                                                           |
| **Chipset**           | Intel® Z490 Chipset                                                                                                                                                                                   |
| **Memory**            | 2 x DIMM, Max. 64GB, DDR4 4800(O.C) / 4600(O.C) / 4500(O.C) / 4400(O.C) / 4333(O.C) / 4266(O.C) / 4133(O.C) / 4000(O.C) / 3866(O.C) / 3733(O.C) / 3600(O.C) / 3466(O.C) / 3400(O.C) / 3200(O.C) / 3000(O.C) / 2933(O.C) / 2800(O.C) / 2666 / 2400 / 2133 MHz Non-ECC, Un-buffered Memory*  
|                       | Dual Channel Memory Architecture  
|                       | Supports Intel® Extreme Memory Profile (XMP)  
|                       | OptiMem II  
|                       | * 10th Gen Intel® Core™ i9/i7 CPUs support 2933/2800/2666/2400/2133 natively. Refer to [www.asus.com](http://www.asus.com) for the Memory QVL (Qualified Vendors Lists). |
| **Graphics**          | 1 x DisplayPort 1.4*  
|                       | 1 x HDMI™ 2.0a  
|                       | * Support DisplayPort 1.4 with max. resolution of 4096 x 2304 @60Hz. Please refer to [www.intel.com](http://www.intel.com) for any update.  
|                       | ** Graphics specifications may vary between CPU types.                                                                                                                                                   |
| **Expansion Slots**   | Intel® 10th Gen Processors*  
|                       | 1 x PCIe 3.0 x16 slot (support x16)  
|                       | * Support PCIe bifurcation for RAID on CPU function.                                                                                                                                                    |
| **Storage**           | Total supports 2 x M.2 slots and 4 x SATA 6Gb/s ports  
|                       | Intel® Z490 Chipset  
|                       | M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 & SATA modes)  
|                       | M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 3.0 x4 & SATA modes)*  
|                       | 4 x SATA 6Gb/s ports*  
|                       | Intel® Rapid Storage Technology supports Raid 0, 1, 5, 10  
|                       | Intel® Optane™ Memory Ready  
|                       | * When the M.2_2 Socket is operating in SATA mode, SATA port 2 will be disabled.                                                                                                                     |
| **Ethernet**          | 1 x Intel® I225-V Ethernet  
|                       | ASUS LANGuard                                                                                                                                                                                          |
| **Wireless & Bluetooth** | Intel® Wi-Fi 6 AX201  
|                       | 2x2 Wi-Fi 6 (802.11 a/b/g/n/ac/ax) support 1024QAM/OFDMA/MU-MIMO  
|                       | Supports up to 2.4Gbps max data rate  
|                       | Supports 2.4/5GHz Dual-Band  
|                       | Supports channel bandwidth: HT20/HT40/HT80/HT160  
|                       | Bluetooth v5.1*  
|                       | * BT 5.1 function will be ready in Windows 10 build 19041 or later.                                                                                                                                  |

(continued on the next page)
## ROG STRIX Z490-I GAMING specifications summary

<table>
<thead>
<tr>
<th>USB</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| Rear USB (Total 8 ports) | 4 x USB 3.2 Gen 2 ports (3 x Type-A + 1 x USB Type-C®)  
2 x USB 3.2 Gen 1 ports (2 x Type-A)  
2 x USB 2.0 ports (2 x Type-A) |
| Front USB (Total 5 ports) | 1 x USB 3.2 Gen 2 front panel connector (supports USB Type-C®)  
1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports  
1 x USB 2.0 header supports additional 2 USB 2.0 ports |

<table>
<thead>
<tr>
<th>Audio</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| ROG SupremeFX 8-Channel High Definition Audio CODEC S1220A | - Impedance sense for front and rear headphone outputs  
- Jack-detection, Multi-streaming, Front Panel Jack-retasking  
- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input  
- Supports up to 32-Bit/192kHz playback*  
Audio Features:  
- Dual OP Amplifiers  
- LED-illuminated audio jacks**  
- Premium Japanese audio capacitors  
- Audio Shielding  
* Due to limitations in HDA bandwidth, 32-Bit/192kHz is not supported for 8-Channel audio.  
** A chassis with an HD audio module in the front panel is required to support 8-channel audio output. |

<table>
<thead>
<tr>
<th>Back Panel I/O Ports</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| 4 x USB 3.2 Gen 2 ports (3 x Type-A + 1 x USB Type-C®)  
2 x USB 3.2 Gen 1 ports (2 x Type-A)  
2 x USB 2.0 ports (2 x Type-A)  
1 x DisplayPort  
1 x HDMI™ port  
1 x ASUS Wi-Fi Module  
1 x Intel® I225-V Ethernet port  
3 x LED-illuminated audio jacks  
1 x BIOS FlashBack™ button |

<table>
<thead>
<tr>
<th>Internal I/O connectors</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| Fan and cooling related | 1 x 4-Pin CPU Fan header  
1 x 4-Pin AIO Pump header  
1 x 4-Pin Chassis Fan header |
| Power related | 1 x 24-pin Main Power connector  
1 x 8-pin +12V Power connector |
| Storage related | 2 x M.2 slots (Key M)  
4 x SATA 6Gb/s ports |

(continued on the next page)
### Internal I/O Connectors

**USB**
- 1 x USB 3.2 Gen 2 Front Panel connector (supports USB Type-C®)
- 1 x USB 3.2 Gen 1 header supports additional 2 USB 3.2 Gen 1 ports
- 1 x USB 2.0 header supports additional 2 USB 2.0 ports

**Miscellaneous**
- 1 x AURA Addressable Gen 2 header
- 1 x AURA RGB header
- 1 x Clear CMOS header
- 1 x Front Panel Audio header (AAFP)
- 1 x Speaker header
- 1 x 10-1 pin System Panel header
- 1 x Thermal Sensor header

### Special Features

**ASUS Q-Design**
- Q-DIMM
- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green])
- Q-Slot

**ASUS Thermal Solution**
- Aluminum M.2 heatsink

**ASUS EZ DIY**
- BIOS FlashBack™ button
- BIOS FlashBack™ LED
- Procool II
- Pre-mounted I/O shield
- SafeSlot

**AURA Sync**
- Standard RGB header
- Addressable Gen 2 RGB header

### Software Features

**ROG Exclusive Software**
- RAMCache III
- ROG CPU-Z
- GameFirst VI
- Sonic Studio III + Sonic Studio Virtual Mixer
- Sonic Radar III
- DTS® Sound Unbound
- Overwolf
- Anti-virus software

(continued on the next page)
<table>
<thead>
<tr>
<th>Software Features</th>
<th>ASUS Exclusive Software Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Armoury Crate</td>
</tr>
<tr>
<td></td>
<td>- Aura Creator</td>
</tr>
<tr>
<td></td>
<td>- Aura Sync</td>
</tr>
<tr>
<td></td>
<td>AI Suite 3</td>
</tr>
<tr>
<td></td>
<td>- 5-Way Optimization with AI Overclocking</td>
</tr>
<tr>
<td></td>
<td>TPU</td>
</tr>
<tr>
<td></td>
<td>EPU</td>
</tr>
<tr>
<td></td>
<td>DIGI+ VRM</td>
</tr>
<tr>
<td></td>
<td>Fan Xpert 4</td>
</tr>
<tr>
<td></td>
<td>Turbo APP</td>
</tr>
<tr>
<td></td>
<td>- EZ update</td>
</tr>
<tr>
<td></td>
<td>WinRAR</td>
</tr>
<tr>
<td></td>
<td><strong>UEFI BIOS</strong></td>
</tr>
<tr>
<td></td>
<td>AI Overclocking Guide</td>
</tr>
<tr>
<td></td>
<td>ASUS EZ DIY</td>
</tr>
<tr>
<td></td>
<td>- ASUS CrashFree BIOS 3</td>
</tr>
<tr>
<td></td>
<td>- ASUS EZ Flash 3</td>
</tr>
<tr>
<td></td>
<td>- ASUS UEFI BIOS EZ Mode</td>
</tr>
<tr>
<td></td>
<td>FlexKey</td>
</tr>
</tbody>
</table>

**BIOS**  
256 Mb Flash ROM, UEFI AMI BIOS

**Manageability**  
WOL by PME, PXE

**Operating System**  
Windows® 10 - 64 bit

**Form Factor**  
Mini-ITX Form Factor  
6.7 inch x 6.7 inch (17 cm x 17 cm)

Specifications are subject to change without notice. Please refer to the ASUS website for the latest specifications.
Connectors with Shared bandwidth

<table>
<thead>
<tr>
<th>Configuration</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.2_2</td>
<td>x4</td>
<td>-</td>
</tr>
<tr>
<td>SATA_2</td>
<td>-</td>
<td>V</td>
</tr>
</tbody>
</table>

The M.2_2 shares bandwidth with SATA_2.
## Package contents

Check your motherboard package for the following items.

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motherboard</td>
<td>1 x ROG STRIX Z490-I GAMING motherboard</td>
</tr>
<tr>
<td>Cables</td>
<td>1 x Addressable RGB extension cable</td>
</tr>
<tr>
<td></td>
<td>4 x SATA 6Gb/s cables</td>
</tr>
<tr>
<td></td>
<td>1 x Panel cable</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1 x Cable ties pack</td>
</tr>
<tr>
<td></td>
<td>2 x M.2 SSD screw packages</td>
</tr>
<tr>
<td></td>
<td>1 x ROG Strix stickers</td>
</tr>
<tr>
<td></td>
<td>1 x ROG Strix thank you card</td>
</tr>
<tr>
<td></td>
<td>1 x ASUS 2x2 dual band Wi-Fi moving antennas</td>
</tr>
<tr>
<td>Installation Media</td>
<td>1 x Support DVD</td>
</tr>
<tr>
<td>Documentation</td>
<td>1 x User manual</td>
</tr>
</tbody>
</table>

If any of the above items is damaged or missing, contact your retailer.
### Installation tools and components

<table>
<thead>
<tr>
<th>PC chassis</th>
<th>Power supply unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® LGA 1200 CPU</td>
<td>Intel® LGA 1200 compatible CPU Fan</td>
</tr>
<tr>
<td>DDR4 DIMM</td>
<td>SATA hard disk drive</td>
</tr>
<tr>
<td>SATA optical disc drive (optional)</td>
<td>Graphics card (optional)</td>
</tr>
<tr>
<td>M.2 SSD module (optional)</td>
<td>1 Bag of screws</td>
</tr>
</tbody>
</table>

The tools and components in the table above are not included in the motherboard package.
Product Introduction

1.1 Before you proceed
Take note of the following precautions before you install motherboard components or change any motherboard settings.

- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Hold components by the edges to avoid touching the ICs on them.
- Whenever you uninstall any component, place it on a grounded antistatic pad or in the bag that came with the component.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.
1.2 Motherboard layout
<table>
<thead>
<tr>
<th>Layout contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CPU socket</td>
<td>1-4</td>
</tr>
<tr>
<td>2. DIMM slots</td>
<td>1-5</td>
</tr>
<tr>
<td>3. Expansion slots</td>
<td>1-7</td>
</tr>
<tr>
<td>4. Fan and Pump headers</td>
<td>1-8</td>
</tr>
<tr>
<td>5. Power connectors</td>
<td>1-9</td>
</tr>
<tr>
<td>6. M.2 slot</td>
<td>1-10</td>
</tr>
<tr>
<td>7. SATA 6GB/s port</td>
<td>1-11</td>
</tr>
<tr>
<td>8. USB 3.2 Gen 2 Front Panel connector</td>
<td>1-12</td>
</tr>
<tr>
<td>9. USB 3.2 Gen 1 header</td>
<td>1-12</td>
</tr>
<tr>
<td>10. USB 2.0 header</td>
<td>1-13</td>
</tr>
<tr>
<td>11. AURA Addressable Gen2 header</td>
<td>1-14</td>
</tr>
<tr>
<td>12. AURA RGB header</td>
<td>1-15</td>
</tr>
<tr>
<td>13. Clear CMOS header</td>
<td>1-16</td>
</tr>
<tr>
<td>14. Front Panel Audio header</td>
<td>1-17</td>
</tr>
<tr>
<td>15. M.2 Heatsink Cover LED connector</td>
<td>1-17</td>
</tr>
<tr>
<td>16. System Panel header</td>
<td>1-18</td>
</tr>
<tr>
<td>17. Thermal Sensor header</td>
<td>1-19</td>
</tr>
<tr>
<td>18. Q-LEDs</td>
<td>1-19</td>
</tr>
</tbody>
</table>
1. CPU socket

The motherboard comes with a LGA1200 socket designed for 10th Gen Intel® Core™, Pentium® Gold and Celeron® processors.

- Ensure that you install the correct CPU designed for LGA1200 socket only. DO NOT install a CPU designed for other sockets on the LGA1200 socket.
- The CPU fits in only one correct orientation. DO NOT force the CPU into the socket to prevent bending the connectors on the socket and damaging the CPU.
- Ensure that all power cables are unplugged before installing the CPU.
- Upon purchase of the motherboard, ensure that the PnP cap is on the socket and the socket contacts are not bent. Contact your retailer immediately if the PnP cap is missing, or if you see any damage to the PnP cap/socket contacts/motherboard components. ASUS will shoulder the cost of repair only if the damage is shipment/transit-related.
- Keep the cap after installing the motherboard. ASUS will process Return Merchandise Authorization (RMA) requests only if the motherboard comes with the cap on the LGA1200 socket.
- The product warranty does not cover damage to the socket contacts resulting from incorrect CPU installation/removal, or misplacement/loss/incorrect removal of the PnP cap.
2. DIMM slots

The motherboard comes with Dual Inline Memory Modules (DIMM) slots designed for DDR4 (Double Data Rate 4) memory modules.

A DDR4 memory module is notched differently from a DDR, DDR2, or DDR3 module. DO NOT install a DDR, DDR2, or DDR3 memory module to the DDR4 slot.

Recommended memory configurations
Memory configurations
You may install 4 GB, 8 GB, 16 GB, and 32 GB unbuffered and non-ECC DDR4 DIMMs into the DIMM sockets.

You may install varying memory sizes in Channel A and Channel B. The system maps the total size of the lower-sized channel for the dual-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation.

- The default memory operation frequency is dependent on its Serial Presence Detect (SPD), which is the standard way of accessing information from a memory module. Under the default state, some memory modules for overclocking may operate at a lower frequency than the vendor-marked value.

- For system stability, use a more efficient memory cooling system to support a full memory load or overclocking condition.

- Always install the DIMMS with the same CAS Latency. For an optimum compatibility, we recommend that you install memory modules of the same version or data code (D/C) from the same vendor. Check with the vendor to get the correct memory modules.

- Visit the ASUS website for the latest QVL.
3. Expansion slots

Unplug the power cord before adding or removing expansion cards. Failure to do so may cause you physical injury and damage motherboard components.

Please refer to the following table for the Hyper M.2 configurations.

**Hyper M.2 X16 series card configuration**

<table>
<thead>
<tr>
<th>Slot Description</th>
<th>2 Intel® SSD on CPU support</th>
<th>3 Intel® SSD on CPU support</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PCIe 3.0 x16</td>
<td>x4+x4</td>
<td>x8+x4+x4</td>
</tr>
</tbody>
</table>

- Hyper M.2 X16 series card sold separately.
- Enable the Hyper M.2 X16 series card under BIOS settings.
4. **Fan and Pump headers**

   The Fan and Pump headers allow you to connect fans or pumps to cool the system.

   - DO NOT forget to connect the fan cables to the fan headers. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan headers!

   - Ensure the cable is fully inserted into the header.

   For water cooling kits, connect the pump connector to the **AIO_PUMP** header.

<table>
<thead>
<tr>
<th>Header</th>
<th>Max. Current</th>
<th>Max. Power</th>
<th>Default Speed</th>
<th>Shared Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU_FAN</td>
<td>1A</td>
<td>12W</td>
<td>Q-Fan Controlled</td>
<td>-</td>
</tr>
<tr>
<td>CHA_FAN</td>
<td>1A</td>
<td>12W</td>
<td>Q-Fan Controlled</td>
<td>-</td>
</tr>
<tr>
<td>AIO_PUMP</td>
<td>1A</td>
<td>12W</td>
<td>Full-Speed</td>
<td>-</td>
</tr>
</tbody>
</table>
5. **Power connectors**

These Power connectors allow you to connect your motherboard to a power supply. The power supply plugs are designed to fit in only one orientation, find the proper orientation and push down firmly until the power supply plugs are fully inserted.

Ensure to connect the 8-pin power plug.

- For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12V Specification 2.0 (or later version) and provides a minimum power of 350 W.
- We recommend that you use a PSU with a higher power output when configuring a system with more power-consuming devices. The system may become unstable or may not boot up if the power is inadequate.
6. **M.2 slot**

The M.2 slot allows you to install M.2 SSD modules.

- M.2_1 and M.2_2 slots support PCIe 3.0 x4 and SATA mode Key M design and type 2242 / 2260/ 2280 storage devices.
- When the M.2_2 Socket is operating in SATA mode, SATA port 2 will be disabled.
- M.2 slots supports IRST (Intel® Rapid Storage Technology).

The M.2 SSD module is purchased separately.
7. SATA 6Gb/s ports

The SATA 6Gb/s ports allows you to connect SATA devices such as optical disc drives and hard disk drives via a SATA cable.

If you installed SATA storage devices, you can create a RAID 0, 1, 5, and 10 configuration with the Intel® Rapid Storage Technology through the onboard Intel® Z490 chipset.

- The slots are set to [AHCI] by default. If you intend to create a SATA RAID set using these connectors, set the SATA Mode item in the BIOS to [Intel RST Premium with Intel Optane System Acceleration (RAID)].
- When the M.2_2 Socket is operating in SATA mode, SATA port 2 will be disabled.
- Before creating a RAID set, refer to the RAID Configuration Guide. You can download the RAID Configuration Guide from the ASUS website.
8. **USB 3.2 Gen 2 Front Panel connector**

The USB 3.2 Gen 2 connector allows you to connect a USB 3.2 Gen 2 module for additional USB 3.2 Gen 2 ports. The USB 3.2 Gen 2 connector provides data transfer speeds of up to 10 Gb/s.

The USB 3.2 Gen 2 module is purchased separately.

9. **USB 3.2 Gen 1 header**

The USB 3.2 Gen 1 header allows you to connect a USB 3.2 Gen 1 module for additional USB 3.2 Gen 1 ports. The USB 3.2 Gen 1 header provides data transfer speeds of up to 5 Gb/s.

The USB 3.2 Gen 1 module is purchased separately.
10. **USB 2.0 header**

The USB 2.0 header allows you to connect a USB module for additional USB 2.0 ports. The USB 2.0 header provides data transfer speeds of up to 480 Mb/s connection speed.

---

**DO NOT** connect a 1394 cable to the USB connectors. Doing so will damage the motherboard!

---

The USB 2.0 module is purchased separately.
11. **AURA Addressable Gen2 header**

The Addressable Gen2 header allows you to connect individually addressable RGB WS2812B LED strips or WS2812B based LED strips.

The Addressable Gen2 header supports WS2812B addressable RGB LED strips (5V/Data/Ground), with a maximum power rating of 3A (5V), and the addressable headers on this board can handle a combined maximum of 500 LEDs.

Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

- Actual lighting and color will vary with LED strip.
- If your LED strip does not light up, check if the addressable RGB LED strip is connected in the correct orientation, and the 5V connector is aligned with the 5V header on the motherboard.
- The addressable RGB LED strip will only light up when the system is powered on.
- The addressable RGB LED strip is purchased separately.
12. **AURA RGB header**

The AURA RGB header allows you to connect RGB LED strips.

The AURA RGB header supports 5050 RGB multi-color LED strips (12V/G/R/B), with a maximum power rating of 3A (12V).

Before you install or remove any component, ensure that the power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.

- Actual lighting and color will vary with LED strip.
- If your LED strip does not light up, check if the RGB LED extension cable and the RGB LED strip is connected in the correct orientation, and the 12V connector is aligned with the 12V header on the motherboard.
- The LED strip will only light up when the system is powered on.
- The LED strip is purchased separately.
13. **Clear CMOS header**

The Clear CMOS header allows you to clear the Real Time Clock (RTC) RAM in the CMOS, which contains the date, time, system passwords, and system setup parameters.

To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Short-circuit pin 1-2 with a metal object or jumper cap for about 5-10 seconds.
3. Plug the power cord and turn ON the computer.
4. Hold down the <Del> key during the boot process and enter BIOS setup to re-enter data.

**Warning:** DO NOT short-circuit the pins except when clearing the RTC RAM. Short-circuiting or placing a jumper cap will cause system boot failure!

**Note:** If the steps above do not help, remove the onboard button cell battery and move the jumper again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the button cell battery.
14. **Front Panel Audio header**

The front panel audio header is for a chassis-mounted front panel audio I/O module that supports HD Audio. Connect one end of the front panel audio I/O module cable to this header.

We recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard’s high-definition audio capability.

15. **M.2 Heatsink Cover LED connector**

The M.2 Heatsink Cover LED connector is for connecting the LED strips on your M.2 heatsink cover.

Be careful when connecting the M.2 heatsink cover to the M.2 Heatsink Cover LED connector. Ensure the LED connector on the M.2 heatsink cover is aligned with the M.2 Heatsink Cover LED connector before installing the M.2 heatsink cover. Failure to do so may cause damage to the connector pins.
16. **System Panel header**  
The System Panel header supports several chassis-mounted functions.

- **System Power LED header (PLED)**  
The 2-pin header allows you to connect the System Power LED. The System Power LED lights up when the system is connected to a power source, or when you turn on the system power, and blinks when the system is in sleep mode.

- **Storage Device Activity LED header (HDLED)**  
The 2-pin header allows you to connect the Storage Device Activity LED. The Storage Device Activity LED lights up or blinks when data is read from or written to the storage device or storage device add-on card.

- **System Warning Speaker header (SPEAKER)**  
The 4-pin header allows you to connect the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

- **Power Button/Soft-off Button header (PWRBTN)**  
The 3-1 pin header allows you to connect the system power button. Press the power button to power up the system, or put the system into sleep or soft-off mode (depending on the operating system settings).

- **Reset button header (RESET)**  
The 2-pin header allows you to connect the chassis-mounted reset button. Press the reset button to reboot the system.
17. **Thermal Sensor header**

The Thermal Sensor header allows you to connect a sensor to monitor the temperature of the devices and the critical components inside the motherboard. Connect the thermal sensor and place it on the device or the motherboard's component to detect its temperature.

The thermal sensor is purchased separately.

18. **Q-LEDs**

The Q-LEDs check key components (CPU, DRAM, VGA, and booting devices) during the motherboard booting process. If an error is found, the critical component’s LED stays lit up until the problem is solved.

The Q-LEDs provide the most probable cause of an error code as a starting point for troubleshooting. The actual cause may vary from case to case.
Basic Installation

2.1 Building your PC system

The diagrams in this section are for reference only. The motherboard layout may vary with models, but the installation steps are the same for all models.

2.1.1 CPU installation

- Ensure that you install the correct CPU designed for LGA1200 socket only. DO NOT install a CPU designed for LGA1155, LGA1156, and LGA1151 sockets on the LGA1200 socket.

- ASUS will not cover damages resulting from incorrect CPU installation/removal, incorrect CPU orientation/placement, or other damages resulting from negligence by the user.

![Diagram of CPU installation steps]
Chapter 2: Basic Installation
2.1.2 Cooling system installation

Apply Thermal Interface Material to the CPU cooling system and CPU before you install the cooling system, if necessary.

To install a CPU heatsink and fan assembly

1. Apply Thermal Interface Material (A) to the heatsink and fan assembly.
2. Align and attach the heatsink and fan assembly (B) to the CPU socket.
3. Secure the heatsink and fan assembly with the retention mechanism (X).
4. Connect the power connector (O) to the CPU.
To install an AIO cooler

If you wish to install an AIO cooler, we recommend installing the AIO cooler after installing the motherboard into the chassis.

1

2
2.1.3 DIMM installation

1. Dimensions of the DIMM slot.

2. Aligning the DIMM with the slot.

3. Pushing the DIMM into the slot.

To remove a DIMM:

1. Lift the retaining clips.
2. Pull out the DIMM.
2.1.4 M.2 installation

Bottom view
• Removing the pre-installed M.2 rubber pad is optional for when installing a double sided M.2 storage device. Ensure to remove the pre-installed M.2 rubber pad screw before installing your double sided M.2 storage device.

• DO NOT remove the pre-installed M.2 rubber pad screw when installing a single-sided M.2 storage device. The pre-installed rubber pad screw is compatible with single-sided M.2 storage devices.
The M.2 is purchased separately.
2.1.5 Motherboard installation

1. Place the motherboard into the chassis, ensuring that its rear I/O ports are aligned to the chassis' rear I/O panel.

2. Place four (4) screws into the holes indicated by circles to secure the motherboard to the chassis.

---

DO NOT over tighten the screws! Doing so can damage the motherboard.
2.1.6 ATX power connection

1

2

Ensure to connect the 8-pin power plug.
2.1.7 SATA device connection

1

2

OR
2.1.8 Front I/O connector

To install the front panel connector

To install USB 3.2 Gen 2 connector

This connector will only fit in one orientation. Push the connector until it clicks into place.

To install USB 3.2 Gen 1 connector

To install USB 2.0 connector

To install front panel audio connector

To install system speaker connector
2.1.9 Expansion card installation

To install PCIe x16 cards
2.1.10 Wi-Fi antenna installation

Installing the ASUS 2x2 dual band Wi-Fi antenna

Connect the bundled ASUS 2x2 dual band Wi-Fi antenna connector to the Wi-Fi ports at the back of the chassis.

- Ensure that the ASUS 2x2 dual band Wi-Fi antenna is securely installed to the Wi-Fi ports.
- Ensure that the antenna is at least 20 cm away from all persons.

The illustration above is for reference only. The I/O port layout may vary with models, but the Wi-Fi antenna installation procedure is the same for all models.
2.2 BIOS update utility

BIOS FlashBack™

BIOS FlashBack™ allows you to easily update the BIOS without entering the existing BIOS or operating system. Simply insert a USB storage device to the USB port (the USB port hole marked in green on the I/O shield) then press the BIOS FlashBack™ button for three seconds to automatically update the BIOS.

To use BIOS FlashBack™:

1. Insert a USB storage device to the BIOS FlashBack™ port.

   We recommend you to use a USB 2.0 storage device to save the latest BIOS version for better compatibility and stability.

2. Visit https://www.asus.com/support/ and download the latest BIOS version for this motherboard.

3. Manually rename the file as RSZ490IG.CAP, or launch the BIOSRenamer.exe application to automatically rename the file, then copy it to your USB storage device.

   The BIOSRenamer.exe application is zipped together with your BIOS file when you download a BIOS file for a BIOS FlashBack™ compatible motherboard.

4. Shut down your computer.

5. Press the BIOS FlashBack™ button for three seconds until the BIOS FlashBack™ LED blinks three times, indicating that the BIOS FlashBack™ function is enabled.

   ![](image)

6. Wait until the light goes out, indicating that the BIOS updating process is completed.

   For more BIOS update utilities in BIOS setup, refer to the section Updating BIOS in Chapter 3.

   • Do not unplug portable disk, power system, or short the CLRTC header while BIOS update is ongoing, otherwise update will be interrupted. In case of interruption, please follow the steps again.

   • If the light flashes for five seconds and turns into a solid light, this means that the BIOS FlashBack™ is not operating properly. This may be caused by improper installation of the USB storage device and filename/file format error. If this scenario happens, please restart the system to turn off the light.

   • Updating BIOS may have risks. If the BIOS program is damaged during the process and results to the system’s failure to boot up, please contact your local ASUS Service Center.
2.3 Motherboard rear and audio connections

2.3.1 Rear I/O connection

We strongly recommend that you connect your devices to ports with matching data transfer rate. Please connect your USB 3.2 Gen 1 devices to USB 3.2 Gen 1 ports and your USB 3.2 Gen 2 devices to USB 3.2 Gen 2 ports for faster and better performance for your devices.

Due to the design of the Intel chipset, all USB devices connected to the USB 3.2 Gen 1 ports are controlled by the xHCI controller. Some legacy USB devices must update their firmware for better compatibility.

### Rear panel connectors

1. DisplayPort
2. USB 3.2 Gen 1 ports 9 and 10
3. Intel® I225-V Ethernet port
4. Wi-Fi 6 (802.11 a/b/g/n/ac/ax), Bluetooth V5.1
5. LED-illuminated audio jacks*
6. HDMI™ port
7. BIOS FlashBack™ button
8. USB 2.0 ports 12 and 13
9. USB 3.2 Gen 2 ports 5 and 6
10. USB 3.2 Gen 2 Type-A port 3
11. USB 3.2 Gen 2 Type-C® port C4

* Refer to the table on the next page for audio port definitions.
* Audio 2, 4, 5.1 or 7.1-channel configuration

<table>
<thead>
<tr>
<th>Port</th>
<th>Headset 2-channel</th>
<th>4-channel</th>
<th>5.1-channel</th>
<th>7.1-channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue LED (rear panel)</td>
<td>Line in</td>
<td>Line in</td>
<td>Line in</td>
<td>Side Speaker Out</td>
</tr>
<tr>
<td>Green LED (rear panel)</td>
<td>Line Out</td>
<td>Front Speaker Out</td>
<td>Front Speaker Out</td>
<td>Front Speaker Out</td>
</tr>
<tr>
<td>Red LED (rear panel)</td>
<td>Mic In</td>
<td>Mic In</td>
<td>Center / Subwoofer Speaker Out</td>
<td>Bass / Center</td>
</tr>
<tr>
<td>HEADPHONE (front panel)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>MIC (front panel)</td>
<td>N/A</td>
<td>Rear Speaker Out</td>
<td>Rear Speaker Out</td>
<td>Rear Speaker Out</td>
</tr>
</tbody>
</table>

2.3.2 Audio I/O connections

Audio I/O ports

Connect to Headphone and Mic
Connect to Stereo Speakers

Connect to 2-channel Speakers

Connect to 4-channel Speakers
Connect to 5.1-channel Speakers

Connect to 7.1-channel Speakers
2.4 Starting up for the first time

1. After making all the connections, replace the system case cover.
2. Ensure that all switches are off.
3. Connect the power cord to the power connector at the back of the system chassis.
4. Connect the power cord to a power outlet that is equipped with a surge protector.
5. Turn on the devices in the following order:
   a. Monitor
   b. External storage devices (starting with the last device on the chain)
   c. System power
6. After applying power, the system power LED on the system front panel case lights up. For systems with ATX power supplies, the system LED lights up when you press the ATX power button. If your monitor complies with the “green” standards or if it has a “power standby” feature, the monitor LED may light up or change from orange to green after the system LED turns on.

The system then runs the power-on self tests (POST). While the tests are running, the BIOS beeps (refer to the BIOS beep codes table) or additional messages appear on the screen. If you do not see anything within 30 seconds from the time you turned on the power, the system may have failed a power-on test. Check the jumper settings and connections or call your retailer for assistance.

<table>
<thead>
<tr>
<th>BIOS Beep</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>One short beep</td>
<td>VGA detected</td>
</tr>
<tr>
<td></td>
<td>Quick boot set to disabled</td>
</tr>
<tr>
<td></td>
<td>No keyboard detected</td>
</tr>
<tr>
<td>One continuous beep followed by two short beeps</td>
<td>No memory detected</td>
</tr>
<tr>
<td>then a pause (repeated)</td>
<td></td>
</tr>
<tr>
<td>One continuous beep followed by three short</td>
<td>No VGA detected</td>
</tr>
<tr>
<td>beeps</td>
<td></td>
</tr>
<tr>
<td>One continuous beep followed by four short</td>
<td>Hardware component failure</td>
</tr>
<tr>
<td>beeps</td>
<td></td>
</tr>
</tbody>
</table>

7. At power on, hold down the <Delete> key to enter the BIOS Setup. Follow the instructions in Chapter 3.

2.5 Turning off the computer

While the system is ON, press the power button for less than four seconds to put the system on sleep mode or soft-off mode, depending on the BIOS setting. Press the power button for more than four seconds to let the system enter the soft-off mode regardless of the BIOS setting.
BIOS and RAID Support

For more details on BIOS and RAID configurations, please refer to www.asus.com/support.

3.1 Knowing BIOS

The new ASUS UEFI BIOS is a Unified Extensible Interface that complies with UEFI architecture, offering a user-friendly interface that goes beyond the traditional keyboard-only BIOS controls to enable a more flexible and convenient mouse input. You can easily navigate the new UEFI BIOS with the same smoothness as your operating system. The term “BIOS” in this user manual refers to “UEFI BIOS” unless otherwise specified.

BIOS (Basic Input and Output System) stores system hardware settings such as storage device configuration, overclocking settings, advanced power management, and boot device configuration that are needed for system startup in the motherboard CMOS. In normal circumstances, the default BIOS settings apply to most conditions to ensure optimal performance. DO NOT change the default BIOS settings except in the following circumstances:

- An error message appears on the screen during the system bootup and requests you to run the BIOS Setup.
- You have installed a new system component that requires further BIOS settings or update.

Inappropriate BIOS settings may result to instability or boot failure. We strongly recommend that you change the BIOS settings only with the help of a trained service personnel.

- When downloading or updating the BIOS file, rename it as RSZ490IG.CAP for this motherboard.
- BIOS settings and options may vary due to different BIOS release versions. Please refer to the latest BIOS version for settings and options.
3.2 BIOS setup program

Use the BIOS Setup to update the BIOS or configure its parameters. The BIOS screen include navigation keys and brief onscreen help to guide you in using the BIOS Setup program.

Entering BIOS at startup

To enter BIOS Setup at startup, press <Delete> or <F2> during the Power-On Self Test (POST). If you do not press <Delete> or <F2>, POST continues with its routines.

Entering BIOS Setup after POST

To enter BIOS Setup after POST:

- Press <Ctrl>+<Alt>+<Delete> simultaneously.
- Press the reset button on the system chassis.
- Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.

After doing either of the three options, press <Delete> key to enter BIOS.

• Ensure that a USB mouse is connected to your motherboard if you want to use the mouse to control the BIOS setup program.

• If the system becomes unstable after changing any BIOS setting, load the default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu or press hotkey <F5>.

• If the system fails to boot after changing any BIOS setting, try to clear the CMOS and reset the motherboard to the default value.

• The BIOS setup program does not support Bluetooth devices.

BIOS menu screen

The BIOS Setup program can be used under two modes: EZ Mode and Advanced Mode. You can change modes from Setup Mode in Boot menu or by pressing the <F7> hotkey.

3.3 EZ Update

The EZ Update is a utility that allows you to update the motherboard BIOS in Windows® environment.

• EZ Update requires an Internet connection either through a network or an ISP (Internet Service Provider).

• This utility is available in the support USB drive that comes with the motherboard package.
3.4 ASUS EZ Flash 3
The ASUS EZ Flash 3 feature allows you to update the BIOS without using an OS-based utility.

Ensure to load the BIOS default settings to ensure system compatibility and stability. Select the **Load Optimized Defaults** item under the **Exit** menu or press hotkey **<F5>**.

To update the BIOS:

- This function can support devices such as a USB flash disk with FAT 32/16 format and single partition only.
- DO NOT shut down or reset the system while updating the BIOS to prevent system boot failure!

1. Insert the USB flash disk that contains the latest BIOS file to the USB port.
2. Enter the Advanced Mode of the BIOS setup program. Go to the **Tool** menu to select **ASUS EZ Flash 3 Utility** and press **<Enter>**.
3. Press **<Tab>** to switch to the **Drive** field.
4. Press the Up/Down arrow keys to find the USB flash disk that contains the latest BIOS, and then press **<Enter>**.
5. Press **<Tab>** to switch to the **Folder** field.
6. Press the Up/Down arrow keys to find the BIOS file, and then press **<Enter>** to perform the BIOS update process. Reboot the system when the update process is done.
3.5 ASUS CrashFree BIOS 3

The ASUS CrashFree BIOS 3 utility is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using the motherboard support DVD or a USB flash drive that contains the BIOS file.

The BIOS file in the motherboard support DVD may be older than the BIOS file published on the ASUS official website. If you want to use the newer BIOS file, download the file at https://www.asus.com/support/ and save it to a USB flash drive.

Recovering the BIOS

To recover the BIOS:

1. Turn on the system.
2. Insert the motherboard support DVD to the optical drive, or the USB flash drive containing the BIOS file to the USB port.
3. The utility automatically checks the devices for the BIOS file. When found, the utility reads the BIOS file and enters ASUS EZ Flash 3 automatically.
4. The system requires you to enter BIOS Setup to recover the BIOS setting. To ensure system compatibility and stability, we recommend that you press <F5> to load default BIOS values.

DO NOT shut down or reset the system while updating the BIOS! Doing so can cause system boot failure!
3.6 RAID configurations

The motherboard comes with the Intel® Rapid Storage Technology that supports RAID 0, RAID 1, RAID 5 and RAID 10 configuration.

For more information on configuring your RAID sets, please refer to the RAID Configuration Guide which you can find at https://www.asus.com/support.

RAID definitions

**RAID 0 (Data striping)** optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks. Two hard disks perform the same work as a single drive but at a sustained data transfer rate, double that of a single disk alone, thus improving data access and storage. Use of two new identical hard disk drives is required for this setup.

**RAID 1 (Data mirroring)** copies and maintains an identical image of data from one drive to a second drive. If one drive fails, the disk array management software directs all applications to the surviving drive as it contains a complete copy of the data in the other drive. This RAID configuration provides data protection and increases fault tolerance to the entire system. Use two new drives or use an existing drive and a new drive for this setup. The new drive must be of the same size or larger than the existing drive.

**RAID 5** stripes both data and parity information across three or more hard disk drives. Among the advantages of RAID 5 configuration include better HDD performance, fault tolerance, and higher storage capacity. The RAID 5 configuration is best suited for transaction processing, relational database applications, enterprise resource planning, and other business systems. Use a minimum of three identical hard disk drives for this setup.

**RAID 10** is data striping and data mirroring combined without parity (redundancy data) having to be calculated and written. With the RAID 10 configuration you get all the benefits of both RAID 0 and RAID 1 configurations. Use four new hard disk drives or use an existing drive and three new drives for this setup.
Appendix

Notices

FCC Compliance Information

Responsible Party: Asus Computer International
Address: 48720 Kato Rd., Fremont, CA 94538, USA
Phone / Fax No: (510)739-3777 / (510)608-4555

Identification of the assembled product: INTEL® WI-FI 6 AX201

Identification of the modular components used in the assembly:
Model Name: INTEL® WI-FI 6 AX201 FCC ID: PD9AX201NG

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.
Compliance Statement of Innovation, Science and Economic Development Canada (ISED)

This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

CAN ICES-3(B)/NMB-3(B)

Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : (1) l’appareil ne doit pas produire de brouillage, et (2) l’utilisateur de l’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

La bande 5150–5250 MHz est réservée uniquement pour une utilisation à l’intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

CAN ICES-3(B)/NMB-3(B)

VCCI: Japan Compliance Statement

Class B ITE

KC: Korea Warning Statement

B급 기기 (가정용 방송통신기자재)
이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

*말해 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니 다.
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See the License for the specific language governing permissions and limitations under the License.

NCC: Taiwan Wireless Statement

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或变更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

應避免影響附近雷達系統之操作。

Japan RF Equipment Statement

屋外での使用について
本製品は、5GHz帯域での通信に対応しています。電波法の定めにより5.2GHz、5.3GHz帯域の電波は屋外で使用が禁じられています。

法律および規制遵守
本製品は電波法及びこれに基づく命令の定めるところに従い使用してください。日本国外では、その国の法律または規制により、本製品の使用ができないことがあります。このような国では、本製品を運用した結果、罰せられることがありますが、当社は一切責任を負いかねますのでご了承ください。

Précautions d’emploi de l’appareil :

a. Soyez particulièrement vigilant quant à votre sécurité lors de l’utilisation de cet appareil dans certains lieux (les avions, les aéroports, les hôpitaux, les stations-service et les garages professionnels).

b. Évitez d’utiliser cet appareil à proximité de dispositifs médicaux implantés. Si vous portez un implant électronique (stimulateurs cardiaques, pompes à insuline, neurostimulateurs…), veuillez impérativement respecter une distance minimale de 15 centimètres entre cet appareil et l’implant pour réduire les risques d’interférence.

c. Utilisez cet appareil dans de bonnes conditions de réception pour minimiser le niveau de rayonnement. Ce n’est pas toujours le cas dans certaines zones ou situations, notamment dans les parkings souterrains, dans les ascenseurs, en train ou en voiture ou tout simplement dans un secteur mal couvert par le réseau.

d. Tenez cet appareil à distance du ventre des femmes enceintes et du bas-ventre des adolescents.
Declaration of compliance for product environmental regulation

ASUS follows the green design concept to design and manufacture our products, and makes sure that each stage of the product life cycle of ASUS product is in line with global environmental regulations. In addition, ASUS disclose the relevant information based on regulation requirements.

Please refer to [http://csr.asus.com/Compliance.htm](http://csr.asus.com/Compliance.htm) for information disclosure based on regulation requirements ASUS is complied with:

**EU REACH and Article 33**
Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at [http://csr.asus.com/english/REACH.htm](http://csr.asus.com/english/REACH.htm).

**EU RoHS**
This product complies with the EU RoHS Directive. For more details, see [http://csr.asus.com/english/article.aspx?id=35](http://csr.asus.com/english/article.aspx?id=35)

**India RoHS**
This product complies with the “India E-Waste (Management) Rules, 2016” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in concentrations exceeding 0.1% by weight in homogenous materials and 0.01% by weight in homogenous materials for cadmium, except for the exemptions listed in Schedule II of the Rule.

**Vietnam RoHS**
ASUS products sold in Vietnam, on or after September 23, 2011, meet the requirements of the Vietnam Circular 30/2011/TT-BCT.

 Cács sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm 2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

**Turkey RoHS**
AEEE Yönetmeliğine Uygundur

**ASUS Recycling/Takeback Services**
ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials. Please go to [http://csr.asus.com/english/Takeback.htm](http://csr.asus.com/english/Takeback.htm) for detailed recycling information in different regions.
DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.

DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

Regional notice for California

![WARNING]

Cancer and Reproductive Harm -
www.P65Warnings.ca.gov
Appendix
ASUS contact information

ASUSTeK COMPUTER INC.
Address 1F., No. 15, Lide Rd., Beitou Dist., Taipei City 112, Taiwan
Telephone +886-2-2894-3447
Fax +886-2-2890-7798
Web site https://www.asus.com

Technical Support
Telephone +86-21-38429911
Online support https://qr.asus.com/techserv

ASUS COMPUTER INTERNATIONAL (America)
Address 48720 Kato Rd., Fremont, CA 94538, USA
Telephone +1-510-739-3777
Fax +1-510-608-4555
Web site https://www.asus.com/us/

Technical Support
Support fax +1-812-284-0883
Telephone +1-812-282-2787
Online support https://qr.asus.com/techserv

ASUS COMPUTER GmbH (Germany and Austria)
Address Harkortstrasse 21-23, 40880 Ratingen, Germany
Website https://www.asus.com/de
Online contact https://www.asus.com/support/Product/ContactUs/Services/questionform/?lang=de-de

Technical Support
Telephone (DE) +49-2102-5789557
Telephone (AT) +43-1360-2775461
Online support https://www.asus.com/de/support