



## ASUS PRIME B760-PLUS D4 Intel B760 LGA 1700 ATX



Model: 90MB1CW0-M1EAY0

Manufacturer: ASUS

EAN: 4711081970309

Product Code: 475746

# R4,040

ASUS Prime series motherboards are expertly engineered to unleash the full potential of 13th Gen Intel® Core™ Processors. Boasting a robust power design, comprehensive cooling solutions and intelligent tuning options, PRIME B760-PLUS D4 provides users and PC DIY builders with a range of performance optimizations via intuitive software and firmware features.

### FLEXIBILITY

Comprehensive controls form the foundation of the ASUS PRIME series. The PRIME B760-PLUS D4 motherboard packs flexible tools to tune every aspect of your system, enabling performance tweaks to perfectly match the way you work to maximize productivity.

### Intelligent Control

ASUS Intelligent Control makes your PC smart. Along with taking care of complex tuning and dynamically optimizing essential aspects of your system, it offers intelligently simplified options for newcomers to PC DIY, as well as more comprehensive features for seasoned veterans.

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## **All-Around Energy Efficiency**

The Power Saving function contains several settings can easily optimize power consumption and maximize energy savings. You can enable a CPU power limit, darken Aura lighting, and set the fan profile to a power saving mode. You can also toggle the Power Saver plan that is built into Microsoft Windows.

## **Flexible Air- and Liquid-Cooling Controls**

ASUS Fan Xpert 2+ software provides comprehensive control over fans and all-in-one (AIO) coolers. Whether cooling with air or water, an Auto-Tuning mode intelligently configures all parameters with a single click. There's also an Extreme Quiet mode that reduces chassis fan speeds to below the default minimum to keep your system whisper-quiet when performing light tasks. Fans and AIO coolers can also be controlled via the UEFI BIOS.

## **Precise Digital Power Control**

The Digi+ voltage-regulator module (VRM) delivers real-time control over voltage droop, automatically switching frequency and power-efficiency settings. It also allows you to fine-tune your CPU for ultimate stability and performance.

## **UEFI BIOS**

The renowned ASUS UEFI BIOS provides everything you need to configure, tweak and tune your system. It offers intelligently simplified options for PC DIY beginners, as well as comprehensive features for seasoned veterans.

## **Advanced Tuning for Serious Tweakers**

An intuitive Advanced mode offered via the UEFI lets you take complete control. A built-in search feature makes it easy to find options, and various advanced functions let you intelligently make nuanced adjustments so you can dial in performance just the way you want.

## **Quick and Simple Setup**

EZ mode displays vital settings and stats and also offers guided wizards, drag-and-drop functionality, and one-click application of important settings — all to help you get your rig up and running in no time.

## **Intuitive Graphical Fan Control**

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Fine-tune individual fan settings simply by dragging a curve with the mouse.

### **Aura On/Off Mode (Stealth)**

Easily enable or disable Aura RGB lighting or every onboard LED, for a subdued aesthetic touch.

## **COOLING**

PRIME B760-PLUS D4 motherboard is engineered with multiple onboard heatsinks and an array of hybrid fan headers to ensure your rig stays cool and stable under intense workloads.

### **Heatsinks**

#### **M.2 Heatsink**

M.2 heatsink wards off throttling that can occur with M.2 storage during sustained transfers. The heatsink is held in place by captive screws, and these removable captive screws help reduce risk of drops or loss during heatsink removal.

#### **VRM Heatsinks and Thermal Pads**

VRM heatsinks and thermal pads improve heat transfer from the MOSFETs for better cooling performance.

#### **Cooler by Design**

PRIME B760-PLUS D4 features comprehensive cooling controls that are configurable via Fan Xpert 2+ software or via the UEFI BIOS.

#### **Multiple Temperature Sources**

Each header can dynamically reference three thermal sensors. Fan Xpert 2+ allows you to map the temperature of supported ASUS graphics cards to optimize cooling for GPU- and CPU-intensive tasks.

#### **AIO Pump Header**

A dedicated PWM/DC header for self-contained water-cooling setups.

#### **Smart Protection**

A dedicated integrated circuit protects each fan header from overheating and overcurrent.

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## 4-Pin PWM/DC Fan

Each onboard header supports auto-detection of PWM or DC fans.

## PERFORMANCE

The PRIME B760-PLUS D4 motherboard is built to handle the high core counts and bandwidth demands of 13th Gen Intel® Core™ Processors. ASUS B760 motherboard provides all the fundamentals to boost daily productivity, so your system will be ready for action with stable power, intuitive cooling and flexible data transfer options.

### Robust Power Design

Stable power is essential to extract every last bit of performance out of Intel® processors. The PRIME B760-PLUS D4 is geared to cater to the demands of these high-core-count CPUs.

## Memory

### DDR4 Support

Improvements to trace routing design provide the latest Intel® processors with enhanced access to memory bandwidth. ASUS OptiMem technology carefully maps memory signal pathways across different PCB layers to reduce path distance, and it adds shielding zones that significantly reduce crosstalk.

### ASUS OptiMem

Revisions to the motherboard's trace routing provide the latest Intel® processors with unrestricted access to memory bandwidth. ASUS OptiMem technology carefully maps memory signal pathways across different PCB layers to reduce vias and adds shielding zones that significantly reduce crosstalk.

### ASUS OptiMem benefits:

Improved memory stability and compatibility

Allows lower memory latencies at equivalent voltages

Improved memory frequency margin

Motherboards with OptiMem technology were tested with Synopsys HSPICE simulation software

## Storage

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### **Three M.2 Slots (up to 64 Gbps)**

PRIME B760-PLUS D4 offers a total of three M.2 slots that support data-transfer speeds of up to 64 Gbps via PCIe 4.0, enabling quicker boot-up and app load times with OS or application drives.

\*Actual transmission speeds will be lower than the theoretical maximum speed.

\*The M.2\_1 and M.2\_2 support PCIe 4.0 x4 mode, M.2\_3 supports PCIe 4.0 x2 mode.

### **PCIe 5.0 Slot**

PCIe 5.0 offers twice the data transfer speed of PCIe 4.0, making it robust enough to handle new data-heavy tasks. PCIe 5.0 also brings other benefits, such as electrical changes to improve signal integrity, backward-compatible CEM connectors for add-in cards, and compatibility with previous versions of PCI Express.

### **USB 3.2 Gen 2x2 Type-C®**

A batch of USB ports support high-end rigs loaded with peripherals, including the rear USB Type-C® connector with ultrafast USB 3.2 Gen 2x2 for transmission speeds of up to 20 Gbps.

### **Front USB Type-C®**

A full complement of USB ports support high-end rigs loaded with peripherals, including a front-panel USB 3.2 Gen 1 Type-C® connector that provides data transfer speeds of up to 5 Gbps.

### **Thunderbolt™ 4 (USB4® compliant)**

PRIME B760-PLUS D4 motherboard features USB4® support via a Thunderbolt™ (USB4®) header. With an ASUS add-on card\*, PRIME motherboards can enable bi-directional speeds of up to 40 Gbps on a single cable, while providing power to fast-charge device. Additionally, this card has a daisy-chain function for multi-screen connection and supports up to dual displays with 4K resolution.

\*ASUS add-on card is sold separately.

### **Realtek 2.5 Gb Ethernet**

Realtek 2.5 Gb Ethernet reduces CPU overhead and offers exceptionally high TCP and UDP throughput for faster, smoother data transfers.

### **LANGuard**

ASUS LANGuard is a hardware-level network protection feature that integrates advanced signal-coupling technology and premium anti-EMI surface-mounted capacitors to improve throughput and

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ensure a more reliable connection.

### **Combined onboard features deliver elevated audio**

Intelligent design and premium hardware create audio quality unlike anything you've ever experienced.

#### **Audio Shielding**

Audio shielding ensures precision analog/digital separation and greatly reduced multi-lateral interference.

#### **Dedicated Audio PCB Layers**

Separate layers for left and right tracks ensures both channels deliver consistent, equal quality.

#### **Premium Audio Capacitors**

Provides warm, natural, and immersive sound with exceptional clarity and fidelity.

Aura Sync

#### **Outshine the Competition**

A well-tuned enthusiast system deserves a matching aesthetic. ASUS Aura offers full RGB lighting control with a variety of functional presets for the built-in RGB LEDs as well as strips and devices connected to the onboard RGB headers — and it can all be synced with an ever-growing portfolio of Aura-capable hardware.

#### **Addressable Gen 2 Headers**

Three Addressable Gen 2 headers are capable of detecting the number of LEDs on second-gen addressable RGB devices, allowing the software to automatically tailor lighting effects to specific devices. The new headers also offer backward-compatibility with existing Aura RGB gear.

#### **Armoury Crate**

Within a single intuitive interface, Armoury Crate offers easily customized Aura Sync RGB settings for every compatible device in your arsenal , plus controls for an ever-growing family of ASUS products, including keyboard and mouse preferences. Armoury Crate also integrates product registration and a news feed so that you never miss updates of interest to the ASUS community.

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## **Q-LED Core**

The Q-LED Core display produces light patterns by power LED during the Power-On Self-Test (POST) that can help users troubleshoot potential issues.

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