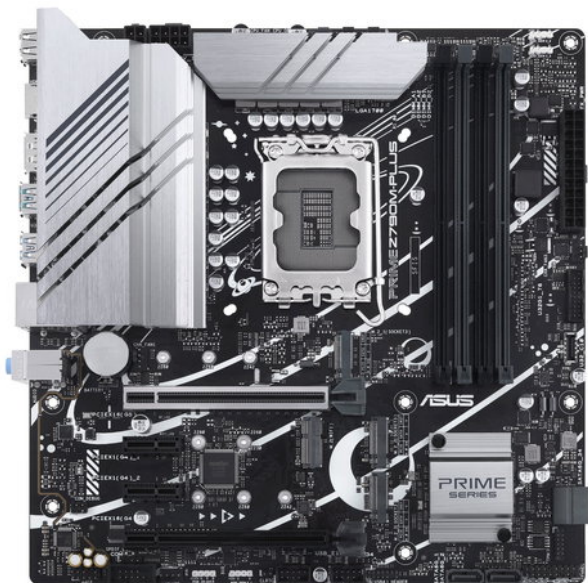




# ASUS PRIME Z790M-PLUS Intel Z790 LGA 1700 micro ATX



Model: 90MB1E70-M1EAY0

Manufacturer: ASUS

EAN: 4711387025741

Product Code: 475759

## R5,664

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 Z790M-PLUS 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 Z790M-PLUS 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

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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.

### **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 4 software provides comprehensive control over fans, water pumps 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 all fan speeds to below the default minimum to keep your system whisper-quiet when performing light tasks. Fans, water pumps 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.

### **AI Cooling II**

AI Cooling II balances the thermals and acoustics of any build with a single click. A proprietary ASUS algorithm slashes unnecessary noise while running a quick stress test, and then it monitors CPU temperatures to dynamically adjust fans to optimal speeds.

### **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.

### **Search Function**

Quickly and easily find the option or setting you need.

### **ASUS User Profile**

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Port configuration settings between different BIOS versions or share them with friends.

## COOLING

PRIME Z790M-PLUS 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.

### VRM Heatsinks and Thermal Pads

The extensive surface area of the massive heatsinks cover the VRMs and chokes to improve heat dissipation. Together with specially engineered thermal pads, they improve heat transfer from the MOSFETs and chokes for better cooling performance.

### Cooler by Design

PRIME Z790M-PLUS features comprehensive cooling controls that are configurable via Fan Xpert 4 software or via the UEFI BIOS.

### Multiple Temperature Sources

Each header can dynamically reference three thermal sensors. Fan Xpert 4 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

### 4-Pin PWM/DC Fan

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

## PERFORMANCE

The PRIME Z790M-PLUS motherboard is built to handle the high core counts and bandwidth demands of 13th Gen Intel® Core™ Processors. ASUS Z790 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 Z790M-PLUS is geared to cater to the demands of these high-core-count CPUs.

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## **AEMP II for Ultimate DDR5 Performance**

ASUS Enhanced Memory Profile II (AEMP II) is an exclusive firmware feature for PMIC-restricted memory modules. AEMP II is based on a CPU and memory module's ability to train the memory chips on your kit, and it presents an optimized clock speed that can effortlessly unleash performance.

Built through a flexible training method, AEMP II makes it easy to not only tune the memory above baseline settings but also maintain the stability of system operation, whether getting the most out of an entry-level module or priming a high-speed kit for ultimate performance.

## **ASUS OptiMem II**

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

Benefits of ASUS OptiMem II:

Improved memory stability and compatibility

Allows lower memory latencies at equivalent voltages

Improved memory frequency margin

## **Outstanding Audio**

### **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

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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.

### **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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