

ASUS PRIME B850M-A WIFI - motherboard - micro ATX - Socket AM5 - AMD B850(90MB1LN0-M0EAY0)

ASUS PRIME B850M-A WIFI - Motherboard - micro ATX - Socket AM5 - AMD B850 Chipset - USB 3.2 Gen 2, USB 3.2 Gen 1, USB-C 3.2 Gen 1 - Wi-Fi 6E, Bluetooth, 2.5 Gigabit LAN - onboard graphics (CPU required) - HD Audio (8-channel)



The ASUS PRIME B850M-A WIFI motherboard is designed to deliver performance for the modern user. Featuring support for AMD Ryzen processors, this micro ATX motherboard includes multiple expansion slots such as PCIe 5.0 x16 and PCIe 4.0 x16, ensuring connectivity for high-performance components. The motherboard supports DDR5 SDRAM with speeds reaching up to 4000 MHz, allowing for efficient multitasking and improved system responsiveness.

Utilizing features like AMD RAID Xpert2 Technology, the PRIME B850M-A enables optimized storage options to ensure data integrity and security. The integrated high definition audio support delivers a sound experience, while a well-designed power management system, composed of an 8+2+1 Phase Power Design and heat dissipation mechanisms, ensures stability during high-demand scenarios. With built-in Wi-Fi 6E and 2.5 Gigabit Ethernet, this motherboard ensures high-speed connectivity for online gaming and streaming, providing a foundation for building a powerful system.

Key Selling Points

- Supports AMD Ryzen processors including the 7000/8000/9000 series
- Equipped with DDR5 RAM technology for enhanced performance
- Includes connectivity options with PCIe 5.0 and Wi-Fi 6E
- Features reliable power management for stable operation under load
- Offers multiple storage interfaces for versatility and expansion

Product Features

Robust audio capabilities

Equipped with high definition audio support, the motherboard provides 8-channel audio output for a sound experience, ideal for gaming and multimedia applications.

Versatile storage options

The ASUS PRIME B850M-A is designed with 4 x SATA-600 (RAID) and 3 x M.2 sockets to accommodate multiple storage devices, enhancing system performance and data management.

Extensive connectivity

This motherboard provides a range of connectivity ports, including USB 3.2 Gen 2, HDMI, DisplayPort, and 2.5 Gigabit Ethernet, ensuring compatibility with various peripherals and high-speed networks.

Customizable bios features

Features such as ASUS EZ Flash 3 and CrashFree BIOS 3 allow for easy system management and recovery, providing users with an experience while maintaining optimal performance.

Enhanced thermal management

The motherboard includes a VRM heatsink design, chipset heatsink, and a dedicated M.2 heatsink, ensuring cooling under heavy workloads for sustained performance.

Main Specifications

Product Description	ASUS PRIME B850M-A WIFI - motherboard - micro ATX - Socket AM5 - AMD B850
Product Type	Motherboard - micro ATX
Chipset Type	AMD B850
Processor Socket	1 x Socket AM5
Compatible Processors	Ryzen (supports Ryzen 7000/8000/9000 Series)
Max RAM Size	256 GB
RAM Supported	4 DIMM slots - DDR5, on-die ECC, non-ECC, ECC, unbuffered
Storage Ports	4 x SATA-600 (RAID), 3 x M.2

USB / FireWire Ports	2 x USB 3.2 Gen 2 + 2 x USB 3.2 Gen 1 + 4 x USB 2.0 + (1 x USB-C 3.2 Gen 1 + 2 x USB 3.2 Gen 1 + 4 USB 2.0 via headers)
Audio	HD Audio (8-channel)
LAN	802.11a/b/g/n/ac/ax (Wi-Fi 6E), Bluetooth 5.3, 2.5 Gigabit Ethernet

Extended Specification

General

Product Type	Motherboard - micro ATX
Chipset Type	AMD B850
Processor Socket	Socket AM5
Max Processors Qty	1
Compatible Processors	Ryzen (supports Ryzen 7000/8000/9000 Series)

Expansion / Connectivity

Expansion Slots	1 x CPU 4 x DIMM 288-pin 1 x PCIe 5.0 x16 1 x PCIe 4.0 x16 2 x M.2 socket (2280 M.2 Key M slot) 1 x M.2 socket (2230/2242/2260/2280 M.2 Key M slot)
Storage Interfaces	SATA-600 -connectors: 4 x 7pin Serial ATA - RAID 0 / RAID 1 / RAID 10 / RAID 5 PCIe 5.0 -connectors: 1 x M.2 PCIe 4.0 -connectors: 2 x M.2
RAID Features	AMD RAID Xpert2 Technology
Interfaces	1 x LAN (2.5Gigabit Ethernet) 1 x HDMI 1 x DisplayPort 2 x USB 3.2 Gen 2 2 x USB 3.2 Gen 1 4 x USB 2.0 1 x audio line-out - mini-jack 1 x audio line-in - mini-jack 1 x audio line-out (rear) - mini-jack 2 x aerial
Internal Interfaces	1 x USB-C 3.2 Gen 1 - header 2 x USB 3.2 Gen 1 - header 4 x USB 2.0 - header 1 x SPDIF out - header 1 x SPI - header 1 x audio - header 1 x serial - header
Power Connectors	24-pin main power connector, 8-pin ATX12V connector, 4-pin ATX12V connector

Miscellaneous

Included Accessories	ASUS Wi-Fi Q-antenna, 1 x M.2 rubber package, 2 x M.2 screw package
Cables Included	2 x Serial ATA cable
Software Included	Adobe Creative Cloud (free trial), Armoury Crate, ASUS AURA Creator, ASUS DriverHub, ASUS Fan Xpert 4, ASUS GlideX, ASUS TUF GAMING CPU-Z, Norton 360 for Gamers (60 days trial), TurboV Core, WinRAR (40 days trial), DTS Audio Processing
Width	24.4 cm
Depth	24.4 cm

Audio

Type	HD Audio (8-channel)
Compliant Standards	High Definition Audio

Features

BIOS Type	AMI
BIOS Features	UEFI BIOS, ASUS EZ Flash 3, ASUS UEFI BIOS EZ Mode
Sleep / Wake Up	Wake on LAN (WOL), wake on PME
Hardware Features	ASUS Enhanced Memory Profile (AEMP), CrashFree BIOS 3, Preboot eXecution Environment (PXE), ASUS Aura Sync, TUF LANGuard, ASUS DIGI+ VRM, ASUS EZ DIY, ASUS Overvoltage Protection, ASUS ProCool, ASUS Q-Design, ASUS SafeDIMM, ASUS SafeSlot, ASUS Stainless Steel Back I/O, ASUS TUF Protection, BIOS FlashBack button, BIOS FlashBack LED, M.2 heatsink, M.2 Q-Latch, PCIe Slot Q-Release, pre-mounted I/O shield, Q-Antenna, Q-Dashboard, Q-DIMM, Q-LED, VRM heatsink design, 8+2+1 Phase Power Design, DIY Friendly Design, chipset heatsink, 8 Layer PCB, TUF 5K black metallic capacitors, PCH heatsink

LAN

Network Interfaces	802.11a/b/g/n/ac/ax (Wi-Fi 6E), Bluetooth 5.3, 2.5 Gigabit Ethernet
--------------------	---

Supported RAM

Max Size	256 GB
Technology	DDR5
Bus Clock	4000 MHz (O.C.)
Supported RAM Integrity Check	On-die ECC, non-ECC, ECC
Registered or Buffered	Unbuffered
Features	Dual channel memory architecture, AMD EXPO technology

What's in the box

- ASUS PRIME B850M-A WIFI
- 2 x Serial ATA cable
- 1 x M.2 rubber package, 2 x M.2 screw package, ASUS Wi-Fi Q-antenna
- Software

Product data is provided by CNET, we do not warrant the accuracy and completeness of the material contained in this data sheet