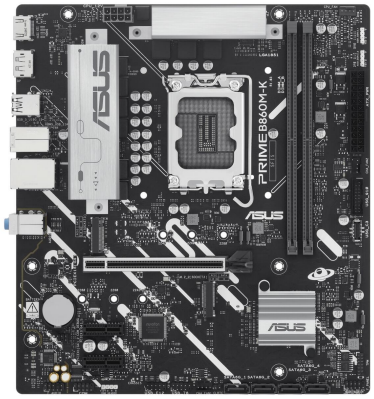
ComX Computers
Product Specification Sheet

PRIME B860M-K

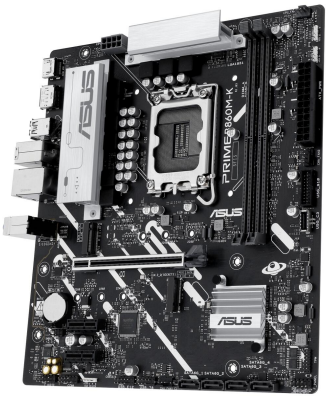
Asus Prime B860M-K Intel Core Ultra Socket LGA 1851 mATX Motherboard

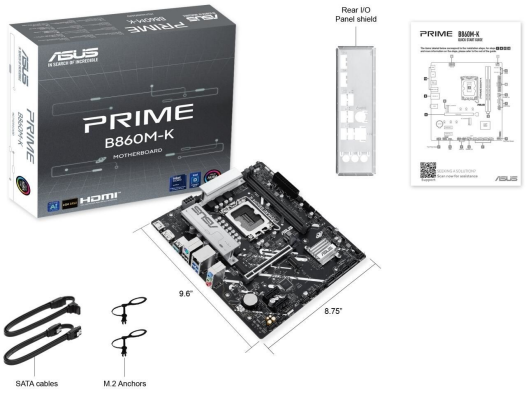
Product Overview

Asus Prime B860M-K Intel Core Ultra Socket LGA 1851 mATX Motherboard, Intel B860 Chipset, 2x DDR5 DIMM Memory slots, 1x DisplayPort, 1x HDMI Port, 1x PCI-e 4.0 x16 slot, 2x PCI-e 4.0 x1 slots, 2x M.2 slots support up to PCI-e 5.0 x4 mode, 4x SATA 6Gb/s Ports, 1x Realtek 2.5Gb Ethernet, USB 10Gbps Port (Type-A), USB 5Gbps Ports (Type-A), USB 2.0 Ports (Type-A), 3x audio jacks, 1x PS/2 Keyboard/Mouse Combo Port











Specifications

Overview:

B860M-K

ASUS PRIME series motherboards are expertly engineered to unleash the full potential of the latest Intel Core Ultra Processors (Series 2). Boasting a robust power design, comprehensive cooling solutions and intelligent tuning options, the PRIME B860M-K motherboard provides users and PC DIY builders with a range of performance optimizations via intuitive software and firmware features. It's designed to be Advanced AI PC-ready, offering the power and connectivity needed for demanding AI applications.

AEMP III for Ultimate DDR5 Performance

ASUS Enhanced Memory Profile III (AEMP III) is an advanced firmware feature that empowers users to achieve unparalleled memory performance with cutting-edge CUDIMM memory. Through a two-phase comprehensive tuning process, AEMP III first optimizes the clock driver and then the memory frequency. This results in the best balance between performance and stability, even at cutting-edge speeds of DDR5-7600 or higher.

DIMM Fit

DIMM Fit is an ASUS-exclusive BIOS feature that precisely analyzes individual memory modules to optimize performance and pinpoint potential issues. This offers peak efficiency, compatibility, and system stability. Whether you are an overclocker seeking ultimate performance, a competitor pursuing the most responsive gameplay, or a content creator prioritizing rock-solid stability, DIMM Fit provides optimizations tailored to your needs and your hardware configuration.

Two M.2 slots (up to 128Gbps)

PRIME B860M-K offers a total of two M.2 slots, including one that supports data-transfer speeds of up to 128Gbps via PCIe 5.0, one that supports 64Gbps via PCIe 4.0. This enables quicker boot-up and app load times with OS or application drives.

Cooling - Cooler by design

The PRIME B860M-K motherboard is engineered with multiple onboard heatsinks and an array of hybrid fan headers to help ensure your rig stays cool and stable under intense workloads.

ASUS Fan Xpert 2+

ASUS Fan Xpert 2+ software provides comprehensive control over fans. 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 can also be controlled via the UEFI BIOS.

Empowering connections

This motherboard offers a versatile range of connectivity, including support for PCIe 5.0 M.2, PCIe 4.0 slot and an arsenal of USB ports which includes Type-Cconnection.

- 2.5Gb Ethernet
- USB 10Gbps Type-A
- PCIe 5.0 M.2

- PCIe 4.0 slot
- USB 5Gbps

Realtek 2.5Gb Ethernet

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

USB 5Gbps Type-C

A batch of USB ports support high-end rigs loaded with peripherals, including a front USB Type-C connector with ultrafast USB 5Gbps for transmission speeds of up to 5Gbps.

Personalization

The PRIME B860M-K enhances the user experience across the board, from simplifying BIOS setting adjustments to offering customizable RGB lighting controls for a uniquely personal system aesthetic.

DIY friendly

The PRIME B860M-K motherboard features EZ PC DIY innovations that simplify and speed up the PC building process, making DIY easy and convenient.

SafeSlot Core+

SafeSlot Core+ is a one-piece stainless-steel brace that shields the slot to protect it from damage. The metal cover is tightly secured to the slot with hooks, and the entire assembly is firmly anchored to the PCB with strengthened solder points to provide a secure foundation for heavyweight graphics cards.

Specifications:

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Specifications	
Product Code	PRIME B860M-K
Model	PRIME B860M-K
CPU	Supports Intel Core Ultra Processors (Series 2), LGA1851
	Supports Intel Turbo Boost Technology 2.0 and Intel Turbo Boost Max Technology 3.0
	** Intel Turbo Boost Max Technology 3.0 support depends on the CPU types.
Chipset	Intel B860 Chipset
Memory	2 x DIMM slots, max. 128GB, DDR5
	Supports up to 8800+MT/s (OC), Non-ECC, Un-buffered ,Clocked Unbuffered DIMM (CUDIMM)
	Dual channel memory architecture
	DIMM Fit
	Supports Intel Extreme Memory Profile (XMP) memory module
	ASUS Enhanced Memory Profile III(AEMPIII)
	Adjustments will be made based on the specifications of mass-produced memory products available on the market.
	** Non-ECC, un-buffered DDR5 memory supports On-Die ECC function.

Graphics	1 x DisplayPort
	1 x HDMI port
	* Graphics specifications may vary between CPU types.
	** Supports max. 4K@60Hz as specified in DisplayPort 1.4.
	* Supports 4K@60Hz as specified in HDMI 2.1.
	** VGA resolution support depends on processors' or graphic cards' resolution.
Expansion Slots	Intel Core Ultra Processors (Series 2)
	1 x PCIe 4.0 x16 slot
	Intel B860 Chipset
	2 x PCIe 4.0 x1 slots
Storage	Total supports 2 x M.2 slots and 4 x SATA 6Gb/s ports
	Intel Core Ultra Processors (Series 2)
	M.2_1 slot (Key M), type 2242/2260/2280 (supports PCIe 5.0 x4 mode)
	Intel B860 Chipset
	M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)
	4 x SATA 6Gb/s ports
	* Intel Rapid Storage Technology supports SATA RAID 0/1/5/10.
Ethernet	1 x Realtek 2.5Gb Ethernet
	ASUS LANGuard
USB	Rear USB (Total 6 ports)
	1 x USB 10Gbps port (1 x Type-A)
	2 x USB 5Gbps ports (2 x Type-A)
	3 x USB 2.0 ports (3 x Type-A)
	Front USB (Total 7 ports)
	1 x USB 5Gbps connector (supports USB Type-C)
	1 x USB 5Gbps header supports 2 additional USB 5Gbps ports
	2 x USB 2.0 headers support 4 additional USB 2.0 ports
	* USB Type-C power delivery output: max. 5V/3A.
	** USB_E1 port, USB_E2 port, USB_E3 port and USB_E4 port share the bandwidth.

Audio	Realtek 7.1 Surround Sound High Definition Audio CODEC
	- Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking
	- Supports up to 24-Bit/192 kHz playback
	Audio Features
	- Audio Shielding
	- Premium audio capacitors
	- Dedicated audio PCB layers
	* A chassis with an HD audio module in the front panel is required to support 7.1 Surround Sound audio output.
Back Panel I/O Ports	1 x USB 10Gbps port (1 x Type-A)
	2 x USB 5Gbps ports (2 x Type-A)
	3 x USB 2.0 ports (3 x Type-A)
	1 x DisplayPort
	1 x HDMI TM port
	1 x Realtek 2.5Gb Ethernet port
	3 x Audio jacks
	1 x PS/2 Keyboard/Mouse combo port

Internal I/O Connectors	Fan and Cooling Related
	1 x 4-pin CPU Fan header
	2 x 4-pin Chassis Fan headers
	Power Related
	1 x 24-pin Main Power connector
	1 x 8-pin +12V CPU Power connector
	Storage Related
	2 x M.2 slots (Key M)
	4 x SATA 6Gb/s ports
	USB
	1 x USB 5Gbps connector (supports USB Type-C)
	1 x USB 5Gbps header supports 2 additional USB 5Gbps ports
	2 x USB 2.0 headers support 4 additional USB 2.0 ports
	Miscellaneous
	2 x Addressable Gen2 headers
	1 x Aura RGB header
	1 x Clear CMOS header
	1 x COM Port header
	1 x Front Panel Audio header (F_AUDIO)
	1 x S/PDIF Out header
	1 x SPI TPM header (14-1 pin)
	1 x 10-1 pin Front Panel System header

Special Features	ASUS 5X PROTECTION III
	- DIGI+VRM
	- LANGuard
	- Overvoltage protection
	- SafeSlot Core+
	- Stainless-steel back I/O
	ASUS Q-Design
	- Q-Dashboard
	- Q-DIMM
	- Q-LED Core
	- Q-Slot
	ASUS Thermal Solution
	- VRM heatsink design
	ASUS EZ DIY
	- ProCool
	Aura Sync
	- Aura RGB header
	- Addressable Gen2 headers
Software Features	ASUS Exclusive Software
	Armoury Crate
	- Aura Sync
	- Fan Xpert 2+
	- Power Saving
	ASUS AI Advisor
	ASUS DriverHub
	ASUS CPU-Z
	Norton 360 Deluxe (60 Days Free Trial)
	WinRAR (40 Days Free Trial)
	UEFI BIOS
	ASUS EZ DIY
	- ASUS CrashFree BIOS 3
	- ASUS EZ Flash
	- ASUS UEFI BIOS EZ Mode
	- ASUS MyHotkey
BIOS	256(128+128) Mb Flash ROM, UEFI AMI BIOS
Manageability	WOL by PME, PXE

Accessories	Cables
	2 x SATA 6Gb/s cables
	Miscellaneous
	1 x I/O Shield
	1 x M.2 anchor package
	Documentation
	1 x Quick start guide
Operating System	Windows 11(22H2 & later), Windows 10 64-bit(21H2 & later)
Form Factor	micro-ATX Form Factor
	9.6 inch x 8.75 inch (24.4cm x 22.2cm)

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:
https://www.comx.co.za/PRIME-B860M-K-Asus-Prime-B860M-K-Intel-Core-Ultra-Socket-LGA-1851-mATX-Motherboard-p-321032.php

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