



Model

TUF GAMING B850M-PLUS WIFI

News & Updates

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CPU

AMD Socket AM5 for AMD Ryzen™ 9000 & 8000 & 7000 Series Desktop Processors*

* Refer to <https://www.asus.com/support/download-center/> for CPU support list.

Chipset

AMD B850 Chipset

Memoria

4 x DIMM slots, max. 256GB, DDR5

Supports up to 8000+MT/s (OC) with Ryzen™ 9000 & 8000 & 7000 Series Processors, ECC and Non-ECC Un-buffered DIMM*

Dual channel memory architecture

Supports AMD Extended Profiles for Overclocking (EXPO™)

ASUS Enhanced Memory Profile (AEMP)

* Adjustments will be made based on the specifications of mass-produced memory products available on the market.

* Supported memory types, data rate (speed), and number of DRAM modules vary depending on the CPU and memory configuration, for more information please refer to CPU/Memory Support list under the Support tab of product information site or visit <https://www.asus.com/support/download-center/>.

* Non-ECC, un-buffered DDR5 memory supports On-Die ECC function.

Gráficos

1 x DisplayPort**

1 x HDMI™ port***

* Graphics specifications may vary between CPU types. Please refer to AMD CPU specifications.

** Supports max. 8K@30Hz as specified in DisplayPort 1.4.

*** Supports 4K@60Hz as specified in HDMI 2.1.

Ranuras de expansión

AMD Ryzen™ 9000 & 7000 Series Desktop Processors*

1 x PCIe 5.0 x16 slot (supports x16 mode)

AMD Ryzen™ 8000 Series Desktop Processors

1 x PCIe 4.0 x16 slot (supports x8/x4 mode)**

AMD B850 Chipset

1 x PCIe 4.0 x1 slot

* Please check the PCIe bifurcation table on the support site

(<https://www.asus.com/support/FAQ/1037507/>).

** Specifications vary by CPU types.

- To ensure compatibility of the device installed, please refer to <https://www.asus.com/support/download-center/> for the list of supported peripherals.

Almacenamiento

Total supports 3 x M.2 slots and 4 x SATA 6Gb/s ports

AMD Ryzen™ 9000 & 7000 Series Desktop Processors

M.2_1 slot (Key M), type 2280 (supports PCIe 5.0 x4 mode)

M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4 mode)

AMD Ryzen™ 8000 Series Desktop Processors

M.2_1 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)

M.2_2 slot (Key M), type 2242/2260/2280 (supports PCIe 4.0 x4/x2 mode)*

AMD B850 Chipset

M.2_3 slot (Key M), type 2280 (supports PCIe 4.0 x4 mode)

4 x SATA 6Gb/s ports

* Specifications vary by CPU types.

AMD RAIDXpert2 Technology

Ryzen™ 9000 Series Processors: RAID 0/1/5/10

Ryzen™ 8000 Series Processors: RAID 0/1

Ryzen™ 7000 Series Processors: RAID 0/1/10

Ethernet

1 x Realtek 2.5Gb Ethernet

TUF LANGuard

WiFi & Bluetooth

Wi-Fi 6E

2x2 Wi-Fi 6E (802.11ax)

Supports 2.4/5/6GHz frequency band*

Bluetooth® v5.3**

* Wi-Fi 6E 6GHz regulatory may vary between countries, supported only in Windows 11 or later.

** The Bluetooth® version may vary, please refer to the Wi-Fi module manufacturer's website for the latest specifications.

USB

Rear USB (Total 12 ports)

1 x USB 20Gbps port (1 x USB Type-C®)

3 x USB 10Gbps ports (3 x Type-A)

4 x USB 5Gbps ports (4 x Type-A)

4 x USB 2.0 ports (4 x Type-A)

Front USB (Total 6 ports)

1 x USB 10Gbps connector (supports USB Type-C®)

1 x USB 5Gbps header supports 2 additional USB 5Gbps ports

2 x USB 2.0 headers support 3 additional USB 2.0 ports

* USB Type-C® power delivery output: max. 5V/3A.

Audio

Realtek ALC1220P 7.1 Surround Sound High Definition Audio CODEC

- Impedance sense for front and rear headphone outputs
- Internal audio Amplifier to enhance the highest quality sound for headphone and speakers
- Supports: Jack-detection, Multi-streaming, Front Panel Jack-retasking
- High quality 120 dB SNR stereo playback output and 113 dB SNR recording input (Line-in)
- Supports up to 32-Bit/192 kHz playback*

Audio Features

- Audio Shielding
- Premium audio capacitors
- Dedicated audio PCB layers

- Audio cover

- Unique de-pop circuit

* Due to limitations in HDA bandwidth, 32-Bit/192 kHz is not supported for 7.1 Surround Sound audio.

Puertos E/S traseros

1 x USB 20Gbps port (1 x USB Type-C®)

3 x USB 10Gbps ports (3 x Type-A)

4 x USB 5Gbps ports (4 x Type-A)

4 x USB 2.0 ports (4 x Type-A)

1 x DisplayPort

1 x HDMI™ port

1 x Wi-Fi module

1 x Realtek 2.5Gb Ethernet port

5 x Audio jacks

1 x BIOS FlashBack™ button

Puertos E/S internos

Fan and Cooling Related

1 x 4-pin CPU Fan header

1 x 4-pin CPU OPT Fan header

1 x 4-pin AIO Pump header

3 x 4-pin Chassis Fan headers

Power Related

1 x 24-pin Main Power connector

2 x 8-pin +12V CPU Power connectors

Storage Related

3 x M.2 slots (Key M)

4 x SATA 6Gb/s ports

USB

1 x USB 10Gbps connector (supports USB Type-C®)

1 x USB 5Gbps header supports 2 additional USB 5Gbps ports

2 x USB 2.0 headers support 3 additional USB 2.0 ports

Miscellaneous

3 x Addressable Gen 2 headers

1 x Clear CMOS header

1 x Chassis Intrusion header

1 x COM Port header

1 x Front Panel Audio header (F_AUDIO)

1 x 10-1 pin Front Panel System header

Tecnologías especiales

ASUS TUF PROTECTION

- DIGI+ VRM (- Digital power design with DrMOS)
- ESD Guards
- TUF LANGuard
- Overvoltage protection
- SafeSlot
- Stainless-steel back I/O

ASUS Q-Design

- M.2 Q-Latch
- PCIe Slot Q-Release
- Q-Antenna
- Q-Dashboard
- Q-DIMM
- Q-LED (CPU [red], DRAM [yellow], VGA [white], Boot Device [yellow green])

ASUS Thermal Solution

- M.2 heatsink
- VRM heatsink design

ASUS EZ DIY

- BIOS FlashBack™ button
- BIOS FlashBack™ LED
- ProCool
- Pre-mounted I/O shield
- SafeDIMM

Aura Sync

- Addressable Gen2 headers

Software

ASUS Exclusive Software

Armoury Crate

- Aura Creator
- Aura Sync
- Fan Xpert 4
- Power Saving

ASUS DriverHub

ASUS GlideX

TurboV Core

TUF GAMING CPU-Z

DTS Audio Processing

Adobe Creative Cloud (Free Trial)

Norton 360 for Gamers (60 Days Free Trial)

WinRAR (40 Days Free Trial)

UEFI BIOS

ASUS EZ DIY

- ASUS CrashFree BIOS 3

- ASUS EZ Flash 3

- ASUS UEFI BIOS EZ Mode

- ASUS MyHotkey

BIOS

256 Mb Flash ROM, UEFI AMI BIOS

Manejabilidad

WOL by PME, PXE

Accesorios

Cables

2 x SATA 6Gb/s cables

Miscellaneous

1 x ASUS WiFi Q-Antenna

1 x TUF GAMING sticker

2 x M.2 rubber packages

1 x Screw package for M.2 SSD

Documentation

1 x Quick start guide

Sistema operativo

Windows 11, Windows 10 64-bit

Factor de forma

micro-ATX Form Factor

9.6 inch x 9.6 inch (24.4 cm x 24.4 cm)