B450MH Motherboard

- Supports AMD Ryzen CPU / APU
- AMD B450 single chip architecture
- Supports 2-DIMM DDR4 up to 64GB maximum capacity
- Supports Realtek Gigabit LAN
- Supports USB 3.2 Gen1
- Supports PCIe M.2
- Supports HDMI®

Specifcation	
CPU SUPPORT	Socket AM4 supports AMD® Ryzen APU / Ryzen CPU *Please refer to www.biostar.com.tw for CPU support list.
MEMORY	Support Dual Channel DDR4 1866/ 2133/ 2400/ 2667/ 2933/ 3200(OC) MHz 2 x DDR4 DIMM Memory Slot, Max. Supports up to 64GB Memory Each DIMM supports non-ECC 8/16/32 GB DDR4 module *Please refer to www.biostar.com.tw for Memory support list.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP
STORAGE	4 x SATA III Connector (6Gb/s) : Supports AHCI & RAID 0, 1, 10 1 x M.2 (32Gb/s): Supports PCI-E & SATA SSD
LAN	Realtek RTL 8111H 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
AUDIO CODEC	ALC897 7.1 Channels, High Definition Audio
USB	6 x USB 3.2 Gen1 ports (4 on rear I/Os and 2 via internal headers) 6 x USB 2.0 ports (2 on rear I/Os and 4 via internal headers)
EXPANSION SLOT	2 x PCIe 2.0 x1 Slots 1 x PCIe 3.0 x16 Slot (When using APU, the bandwidth is x8 speed)
REAR I/O	1 x PS/2 Keyboard/Mouse 4 x USB 3.2 Gen1 (5Gb/s) Ports 2 x USB 2.0 Ports 1 x HDMI® Port 1 x VGA Port 1 x LAN Port 3 x Audio Jacks

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INTERNAL I/O	4 x SATA III 6.0Gb/s Connectors 2 x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1 x USB 3.1 Gen1 (5Gb/s) Header (each header supports 2 USB 3.1 Gen1 ports) 1 x 8-Pin Power Connector 1 x 24-Pin Power Connector 1 x CPU Fan Connector 1 x System Fan Connector 1 x Front Panel Header 1 x Front Audio Header 1 x COM Serial Header 1 x Clear CMOS Header
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU Fan Control CPU/DDR Voltage Monitoring
DIMENSION	Micro ATX Form Factor Dimension: 19.8cm x 24.4cm (W x L)
OS SUPPORT	Supports Windows 7(64bit) / 10(64bit) ※Biostar reserves the right to add or remove support for any OS with or without notice.
BUNDLE SOFTWARE	BullGuard
ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide

OVERVIEW

AMD B450 chipset

AMD B450 is the high-end chipset for overclockers and tweakers who need robust platforms. This chip provides the ultimate low-level control to its users and delivers ultimate graphics card bandwidth.

HD Audio

Provides high quality sound with minimal loss of audio fidelity.

HDMI® 4K2K

The new 4K2K resolution enables high-definition image display with four times the resolution of full HD, 4K2K display is faithfully express bright, highly detailed content that fills the entire screen with lifelike images. Connectivity with PCs via a single HDMI® cable for displaying 4K2K data.

DX12

DirectX 12 introduces the next version of Direct3D, the graphics API at the heart of DirectX. Direct3D is one of the most critical pieces of a game or game engine, and we've redesigned it to be faster and more efficient than ever before. Direct3D 12 enables richer scenes, more objects, and full utilization of modern GPU hardware.

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Integrated HDMI® with HDCP

Onboard HDMI® connector allows full video & audio support. It has industry-leading high definition video quality.

SmartSpeedLAN

SmartSpeedLAN is a free software application which monitors and manages your PC's network behavior. With user-friendly GUI, it allows you to select and prioritize different types of network traffic, including gaming, media streaming, communications or web surfing.You can also set any specific applications, choosing to prioritize or block accordingly. SmartSpeedLAN can feature automatic management options that use adaptive networking intelligence to ensure that you are getting the best online experience possible.

PCIe M.2

PCIe M.2 32Gb/s delivers the highest bandwidth and lower latency. It is 3 times faster compared with PCIe M.2 10Gb/s.

PCIe 3.0

PCIe 3.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 8GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 2.0, while preserving compatibility with software and mechanical interfaces.

SATAIII 6Gbps

SATAIII 6Gbps provides a higher bandwidth to retrieve and transfer HD media. With this super speed data transfer, SATAIII allows an incredible data boost which is 2x faster than the SATA II.

USB 3.2 Gen1 Type-A

USB 3.2 Gen1 delivers a compelling performance boosts and can be used to connect multiple devices without worrying about compatibility. It is capable of data transfer speeds up to 5Gbps and backwards compatible with all existing USB products.

Super LAN Surge Protection

Super LAN Surge Protection, providing LAN port with more advanced antistatic protection capabilities by adding an integrated chip to strengthen electrical stability and prevent damage from lightning strikes and electrical surges. SLSP (Super LAN Surge Protection) series motherboard upgrades the existing system protection standards with maximum 4X protection comparing to other board makers.

ESD Protection

ESD (Electrostatic Discharge) is the major factor to destroy the PC by electrical overstress (EOS) condition. ESD occurred by PC users when touch any devices connect to a PC, which may result in damage to the motherboard or parts. ESD protection is designed to protect the motherboard and equipment from damage by EOS.

USB Polyswitch

On board dedicated power fuse to help prevent USB port failure. It prevents USB Port overcurrent and safe guard your system and device lifespan.

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	OC / OV / OH Protection OC / OV / OH Protection design detects overvoltage conditions and prevents voltage surges from spreading in real time. It also actively cuts off the overvoltage supply to protect your system.
	BullGuard Internet Security (90 days FREE trial) BullGuard Internet Security comes with the broadest line-up of internet security features on the market, including: a cutting-edge dual Antivirus engine, Online Backup for your precious files, PC Tune Up to speed up your system, a Game Mode for a seamless gaming experience, Parental Control, Firewall, Safe Browsing and many more. Make the most of your digital life with Bullguard!
	BIO-Flasher BIO-Flasher is a convenient BIOS update tool. Just launch this tool and put the BIOS on USB pen driver before entering the OS. You can update your BIOS with only a few clicks without preparing an additional floppy disk or other complicated flash utility.
	eHot-Line Utiltiy Integrated e-service automatically sends your technical support request to Biostar Globe tech support without any delay.
	BIOScreen Utility Personalize your desktop with customizable boot logo. BIOScreen is the new feature that lets you personalize and create your own style with unique, custom-made boot logo.
	HDMI® The terms HDMI® and HDMI® High-Definition Multimedia Interface, and the HDMI® Logo are trademarks or registered trademarks of HDMI® Licensing Administrator, Inc. in the United States and other countries.

*The specification and pictures are subject to change without notice and the package contents may differ by area or your motherboard version!

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