BIOSTAR
WWW.BIOSTAR.COM.TW

B550MX/E PRO Motherboard

- Supports AMD Ryzen 3rd Gen (Matisse / Renoir) and 4th Gen (Vermeer) processors
- AMD B550 single chip architecture
- Supports 4-DIMM DDR4-4933+(OC)/4800(OC)/4600(OC)/4400(OC)/4000(OC)/3800(OC)/3600(OC)/3200/2933/2667/2400/2133 up to 128GB maximum capacity
- Supports PCIe M.2 4.0 (64Gb/s)
- Supports HDMI 2.1 4K resolution
- Supports WiFi 6 module (No WiFi 6 card included)

B550MX/E PRO Specifcation

CPU SUPPORT	Socket AM4 support AMD Ryzen 3rd Gen (Matisse/ Renoir) and Ryzen 4th Gen (Vermeer/ Future) processors Support for future AMD Ryzen processors with BIOS update * Please refer to www.biostar.com.tw for CPU support list.
MEMORY	4th Gen AMD Ryzen Processors (Vermeer CPUs/ Future APUs): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/ 2133 3rd Gen AMD Ryzen Processors (Matisse CPUs): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/ 2133 3rd Gen AMD Ryzen with Radeon Graphics Processors (Renoir APUs): Supports Dual Channel DDR4 4933+(OC)/ 4800(OC)/ 4600(OC)/ 4400(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/ 2133 4 x DDR4 DIMM Memory Slot, Max. Supports up to 128 GB Memory Each DIMM supports non-ECC and ECC Un-buffered 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	-- Total supports 2 x M.2 socket and 4 x SATA III (6Gb/s) ports 4 x SATA III Connectors (6Gb/s) : Supports AHCI & RAID 0, 1, 10 1 x M.2 (M Key) Socket (M2_PCIEG4_64G_SATA): Supports M.2 Type 2242/ 2260/ 2280 SSD module Supports PCIe 4.0 x4 (64Gb/s)/ 3.0 x4 (32Gb/s) - NVMe/ AHCI & SATA III (6.0Gb/s) SSD 1 x M.2 (M Key) Socket (M2_PCIEG3_32G_SATA): Supports M.2 Type 2242/ 2260/ 2280 SSD module Supports PCIe 3.0 x4 (32Gb/s) - NVMe/ AHCI & SATA III (6.0Gb/s) SSD * M.2 (M Key) Socket (M2_PCIEG4_64G_SATA) : The bandwidth is depended on CPU. Supports PCIe 4.0 x4 (64Gb/s) speed, which depends only on Ryzen 3rd Gen Matisse and 4th Gen Vermeer CPUs.
LAN	Realtek RTL8111H 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
AUDIO CODEC	ALC897 7.1 Channels, High Definition Audio, Hi-Fi (Front)
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	1 x PCIe 4.0/ 3.0 x16 Slot (PCIEG4X16): Supports PCIe 3.0 x16/ 4.0 x16 mode with AMD Ryzen processors. Supports PCIe 3.0 x16 mode AMD Ryzen with Radeon Vega Graphics processors. 1 x PCIe 3.0 x16 Slot (PCIEG3X4) : Supports x4 mode 1 x PCIe 3.0 x1 Slot (PCIEG3X1) * According to different CPUs will have different speeds. * PCIe 4.0 speed only for AMD Ryzen 3rd Gen Matisse and 4th Gen Vermeer CPUs. * When using PCIe x1 slot (PCIEG3X1), PCIe x16 slot (PCIEG3X4) will be adjusted to x2 lanes.
REAR I/O	2 x WIFI Antenna Ports 1 x PS/2 Keyboard / Mouse 1 x DVI-D Port 1 x VGA Port 1 x HDMI Port 1 x LAN port 4 x USB 3.2 (Gen1) Ports 2 x USB 2.0 Ports 3 x Audio Jack
INTERNAL I/O	4 x SATA III (6.0Gb/s) Connectors 1 x M.2 (E Key) Socket : Supports 2230 type Wi-Fi & Bluetooth module 2 x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1 x USB 3.2 (Gen1) Header (each header supports 2 USB 3.2 (Gen1) ports) 1 x 8-Pin Power Connector 1 x 24-Pin Power Connector 1 x CPU Fan Connector 2 x System Fan Connectors 1 x Front Panel Header 1 x Front Audio Header 1 x Internal Stereo Speaker Header 1 x Clear CMOS Header 1 x S/PDIF out Connector 1 x COM Port Header 1 x TPM Header 1 x SYSTEM Status LED * M.2 (E key) Wi-Fi card is not provided
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU Fan Control System Voltage Monitoring
DIMENSION	Micro ATX Form Factor Dimension: 24.4cm x 24.4cm (W x L)
OS SUPPORT	Supports Windows 10(64bit) / 11(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 1 x WiFi antenna accessories
FEATURES	A.I FAN PCIe M.2 4.0

B550MX/E PRO OVERVIEW

CPU-Chipset

AMD SOCKET AM4 B550	**AMD B550 chipset** AMD B550 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.It also supports PCI-E Gen4 bandwidth

Audio+

HD Audio

Provides high quality sound with minimal loss of audio fidelity.

Hi-Fi Ground

BIOSTAR Hi-Fi Ground (Golden Line) is noise-blocking multi-layer PCB design to isolates analog audio signals from digital sources. Unique PCB layout is ideal for exceptional clarity and high fidelity sound.

Video+

NEW HDMI 2.0

HDMI 2.0 supports true 4K resolution- 4096*2160@60hz. A significant increase in bandwidth is up to 18mbps, and significant enhancements are added to support the continued increase consumer demands on video and audio experience.

DVI

DVI is better than VGA for LCD displays since it is digital while VGA is analog. For LCD displays, the picture is digitized pixel per pixel. Through DVI, the panel gets data for each pixel, so the picture generated in the Graphics device matches the pixels on the panel itself.

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.

Integrated HDMI with HDCP

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

Speed+

PCIe M.2

PCIe M.2 32Gb/s is the latest storage interface, it delivers the highest bandwidth and lower latency. It's 3 times faster compared with PCIe M.2 10Gb/s.

PCIe Gen 3.0

PCIe 3.0 is the next evolution of 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 3G.

Dual DDR4

The primary advantages of DDR4 over DDR3, include higher module density, lower voltage requirements, coupled with higher data transfer rate.

PCIe 4.0

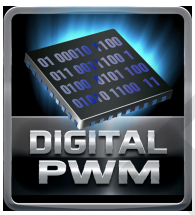
PCIe 4.0 is the next evolution of the ubiquitous and general-purpose PCI Express I/O standard. At 16GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 3.0, while preserving compatibility with software and mechanical interfaces.

PCIe M.2 4.0

PCIe M.2 4.0 is the latest storage interface, it delivers the highest bandwidth and lower latency. It is 2 times faster compared with PCIe M.2 3.0.

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.



Digital PWN

Digital PWM controller is with dual-output multiphase that faster transient performance and accurately regulated frequency control. It can be enabled to greatly increase system efficiency.

Durable+

Super Durable Solid Caps

The best quality solid state capacitors with ultra low ESR design, the Super Durable Solid Caps doubles the lifespan.

Moistureproof of PCB

The popularity of PC usage and working environment is getting deteriorating and moist (rural, coastal, etc.). The PCB will be oxidizing easily by damp or absorbed moisture, and ionic migration or CAF (Conductive Anodic Filament) will be generated. Moisture-proof PCB meets high density and high reliability requirements for moisture proof.

Protection+

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.

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

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!

DIY+

UEFI BIOS

Unified Extensible Firmware Interface (UEFI) is a brand new framework that provides a revolutionary interface. It is a modern clear and easy-to-use graphical user interface. The UEFI comes with a colorful easy-understand icons leads users into the setup layer directly.

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.

A.I FAN

With A.I FAN users can ensure that their gaming PC can maintain its performance while staying cool. According to different cooling needs and usage scenarios, users can control speed modes. Allows users to have more customizability of fan modes and automatically detects different temperatures to make fan operate at defined speed for optimal cooling performance. Furthermore, A.I FAN support both PWM and DC voltage fans for more cooling options.

Debug LED

Debug LED helps you identify any issues going with your board or hardware. When error occurs, the corresponding LED lights will inform you on the status of your board or hardware to shorten the test time effectively.

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