# B550MXC PRO Motherboard

- Supports AMD Ryzen 3rd Gen (Matisse / Renoir) and 4th Gen (Vermeer / Cezanne) processors
- AMD B550 single chip architecture
- Supports 4-DIMM DDR4 up to 128GB maximum capacity
- Supports PCIe M.2 4.0 (64Gb/s)
- Supports HDMI® 4K resolution
- Supports WiFi 6 module (No WiFi 6 card included)
- CEC Ready

| Specifcation | |
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| CPU SUPPORT | Socket AM4 support AMD Ryzen™ 3rd Gen (Matisse/ Renoir) and Ryzen™ 4th Gen (Vermeer/ Cezanne) processors<br>Support for future AMD Ryzen processors with BIOS update<br>* Please refer to www.biostar.com.tw for CPU support list. |
| MEMORY | 4th Gen AMD Ryzen Processors (Vermeer CPUs/ Cezanne APUs):<br>Supports Dual Channel DDR4 4533(OC)/ 3200/ 2933/ 2666/ 2400/ 2133/ 1866<br>3rd Gen AMD Ryzen Processors (Matisse CPUs):<br>Supports Dual Channel DDR4 1866/2133/2400/2666/2933/3200/4533(OC)<br>3rd Gen AMD Ryzen with Radeon Graphics Processors (Renoir APUs):<br>Supports Dual Channel DDR4 1866/2133/2400/2666/2933/3200/4533(OC)<br>4 x DDR4 DIMM Memory Slot, Max. Supports up to 128 GB Memory<br>Each DIMM supports non-ECC and ECC Un-buffered 8/ 16/ 32 GB DDR4 module<br>* Please refer to www.biostar.com.tw for Memory support list. Storage |
| INTEGRATED VIDEO | By CPU model<br>Supports DX12<br>Supports HDCP |

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| STORAGE | Total supports 2 x M.2 socket and 8 x SATA III (6Gb/s) ports<br>1x M.2 (M Key) Socket (M2_PCIEG4_64G_SATA):<br>Supports M.2 Type 2242/ 2260/ 2280 SSD module<br>AMD Ryzen 5000/3000 Series Processors<br>Supports PCIe 4.0 x 4 (64Gb/s) & SATA III (6.0Gb/s) SSD<br>AMD Ryzen 5000 G/4000 G Series Processors<br>Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6.0Gb/s) SSD<br>AMD B550 Chipset<br>1x M.2 (M Key) Socket (M2_PCIEG3_32G_SATA):<br>Supports M.2 Type 2280 SSD module<br>Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6.0Gb/s) SSD<br>4 x SATA III (6Gb/s) Support AHCI & RAID 0, 1, 5, 10 only for SATA1 ~ SATA4 ports<br>* M.2 (M2_PCIEG4_64G_SATA) Socket: The bandwidth is depended on CPU. Supports PCIe 4.0 x 4 (64Gb/s) speed, which depends only on Ryzen 3rd Gen Matisse & 4th Gen Vermeer.<br>*If use both M2 socket devices and SATA1~4 ports, are NOT disabled. |
| LAN | Realtek RTL8111H<br>10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability |
| AUDIO CODEC | Realtek ALC897<br>7.1 Channels, High Definition Audio, Hi-Fi (Front) |
| USB | 1 x USB 3.2 (Gen2) Type-C port (1 on rear I/O)<br>1 x USB 3.2 (Gen2) port (1 on rear I/O)<br>6 x USB 3.2 (Gen1) port (4 on rear I/Os and 2 via internal headers)<br>6 x USB 2.0 port (2 on rear I/Os and 4 via internal headers) |
| EXPANSION SLOT | AMD Ryzen 5000/3000 Series Processors<br>1 x PCIe 4.0 x16 Slot (x16 or x4/x4/x4/x4 mode)<br>or<br>AMD Ryzen 5000 G/4000 G Series Processors<br>1 x PCIe 3.0 x16 Slot (x16 or x8/x4/x4 mode)<br>AMD B550 Chipset<br>1 x PCIe 3.0 x16 Slot (x1 mode)<br>1 x PCIe 3.0 x16 Slot (x1 mode)<br>1 x PCIe 3.0 x16 Slot (x1 mode)<br>* According to different CPUs will have different speeds.<br>* PCIe 4.0 speed only for AMD Ryzen™ 3rd Gen Matisse and 4th Gen Vermeer CPUs. |
| REAR I/O | 2 x WIFI Antenna Port<br>1 x PS/2 Keyboard / Mouse<br>1 x HDMI® Port<br>1 x LAN port<br>4 x USB 3.2 (Gen1) Port<br>2 x USB 2.0 Port<br>3 x Audio Jack<br>1 x USB 3.2 (Gen2) Type-C port<br>1 x USB 3.2 (Gen2) port |

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| INTERNAL I/O | 8 x SATA III (6.0Gb/s) Connector<br>1 x M.2 (E Key) Socket : Supports 2230 type Wi-Fi & Bluetooth module<br>2 x USB 2.0 Header (each header supports 2 USB 2.0 ports)<br>1 x USB 3.2 (Gen1) Header (each header supports 2 USB 3.2 (Gen1) ports)<br>1 x 8-Pin Power Connector<br>1 x 24-Pin Power Connector<br>1 x CPU Fan Connector<br>2 x System Fan Connector<br>1 x Front Panel Header<br>1 x Front Audio Header<br>1 x Speaker Header<br>1 x Clear CMOS Header<br>1 x S/PDIF out Connector<br>1 x COM Port Header<br>1 x TPM Header<br>2 x LED Header (5V)<br>1 x LED Header (12V)<br>1 x Debug LED<br>* M.2 (E key) Wi-Fi card is not provided |
| H/W MONITORING | CPU / System Temperature Monitoring<br>CPU / System Fan Monitoring<br>Smart / Manual CPU Fan Control<br>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)<br>※Biostar reserves the right to add or remove support for any OS with or without notice. |
| BUNDLE SOFTWARE | BullGuard |
| ACCESSORIES | 2 x SATA Cable<br>1 x I/O Shield<br>1 x DVD Driver<br>1 x Quick Guide<br>1 x WiFi antenna accessories(Wi-Fi accessories are optional, contact your local dealer to purchase.) |
| FEATURES | VIVID LED DJ<br>BIO-FLASHER<br>A.I FAN<br>LED ROCK ZONE |

# OVERVIEW

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| AMD SOCKET AM4 B550 | **AMD B550 chipset**<br>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 |
| HD AUDIO | **HD Audio**<br>Provides high quality sound with minimal loss of audio fidelity. |

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## 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.

## 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.

## Integrated HDMI® with HDCP

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

## 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.

## 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 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.

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## PCIe 4.0 M.2

PCIe 4.0 M.2 delivers the highest bandwidth and lower latency. It is 2 times faster compared with PCIe 3.0 M.2 .

## USB 3.2 Gen2 Type-C

USB 3.2 Gen2 offers up to double the transfer speed of USB 3.2 Gen1 at 10 Gbps that allows for much higher data transfer rates and more efficient data transfer. And the Type-C connector is reversible so it's easier to plug in.

## USB 3.2 Gen2 Type-A

USB 3.2 Gen2 is a new standard called SuperSpeed USB 10Gbps to address increased performance and improve data transmission speed. It is for a max data transfer rate of 10Gbps and creates the best possible connection between your devices.

## Digital PWM

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.

## Super Durable Solid Caps

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

## Moistureproof PCB

The PCB will be oxidizing easily by damp or absorbed moisture, and ionic migration or CAF (Conductive Anodic Filament) will be generated. Moistureproof PCB meets high density and high reliability requirements for moisture proof.

## 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 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!

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## VIVID LED DJ

New VIVID LED DJ with more customizability and options to control multiple RGB LED lighting zones independently. Users can control color, speed and brightness for different modes at ease. Moreover,have more possibilities for users to create unlimited creativity with 5050 LED FUN ZONE which comes with dual RGB LED products.

## 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.

## LED ROCK ZONE

LED ROCK ZONE comes with the RGB 12V LED header and Digital 5V LED header which offer more colorful lighting options to DIY lovers. Adjusting the color of LED and changing system colors by VIVID LED DJ will make you fully enjoy the process of PC modding developing your personal style.

## BIOSTAR RGB SYNC

BISOTAR RGB SYNC is designed to create your personalized lighting effects. Let all the RGB peripherals and components sync together.

## 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.

## A.I TP Control

A.I TP Control is designed for overclockers. It provides a user-friendly BIOS environment that overclockers can adjust the temperature setting to keep your PC safe and enjoy extreme overclocking performance.

## Smart Update

Biostar Smart Update is a utility that can help users run online update. It can download the drivers for your motherboard from Biostar official website and install them automatically.

## 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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