B550M-SILVER Motherboard

- Supports AMD Ryzen 3rd Gen (Matisse/ Renoir) and 4th Gen (Vermeer) processors
- AMD B550 single chip architecture
- Supports 4-DIMM DDR4 By Renoir Processors-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 USB 3.2 Gen2
- Supports PCIe M.2 4.0 (64Gb/s)
- Supports HDMI® 2.1 4K resolution
- Supports WiFi 6 (No Wifi 6 card included)

Specifcation	
CPU SUPPORT	Socket AM4 support AMD Ryzen™ 3rd Gen (Matisse/ Renoir) and Ryzen™ 4th Gen (Vermeer) 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): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/ 2133/ 1866 3rd Gen AMD Ryzen Processors (Matisse CPUs): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/ 2133/ 1866 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/ 1866 4 x DDR4 DIMM Memory Slot, Max. Supports up to 128 GB 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

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STORAGE	Total supports 2x M.2 socket and 6 x SATA III (6Gb/s) ports 1x M.2 (M Key) Socket (M2_PCIEG4_64G_SATA): Supports M.2 Type 2242/ 2260/ 2280 SSD module AMD Ryzen 5000/3000 Series Processors Supports PCIe 4.0 x 4 (64Gb/s) & SATA III (6.0Gb/s) SSD AMD Ryzen 5000 G/4000 G Series Processors Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6.0Gb/s) SSD AMD B550 Chipset 1x M.2 (M Key) Socket (M2_PCIEG3_32G_SATA): Supports M.2 Type 2242/ 2260/ 2280 SSD module Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6.0Gb/s) SSD 6x SATA III Connector (6Gb/s) : Supports AHCI & RAID 0, 1, 10 * 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. * When M.2 (M2_PCIEG3_32G_SATA) Socket is occupied by SATA mode, the SATA_5 connector will be disabled. * When M.2 (M2_PCIEG3_32G_SATA) socket is occupied by PCI-E mode, the SATA_5/ SATA_6 connector will be disabled.
LAN	Realtek RTL8125B 10/ 100/ 1000/ 2500 Mb/s auto negotiation, Half / Full duplex capability Supports Realtek 2.5GbE LAN
AUDIO CODEC	ALC1150 7.1 Channels, High Definition Audio, Hi-Fi (Front)
USB	1 x USB 3.2 (Gen2) Type-C port (1 on rear I/O) 1 x USB 3.2 (Gen2) port (1 on rear I/O) 6 x USB 3.2 (Gen1) port (4 on rear I/Os and 2 via internal headers) 6 x USB 2.0 port (2 on rear I/Os and 4 via internal headers)
EXPANSION SLOT	AMD Ryzen 5000/3000 Series Processors 1 x PCIe 4.0 x16 Slot (x16 or x4/x4/x4/x4 mode) or AMD Ryzen 5000 G/4000 G Series Processors 1 x PCIe 3.0 x16 Slot (x16 or x8/x4/x4 mode) AMD B550 Chipset 1 x PCIe 3.0 x16 Slot (x4 mode) 1 x PCIe 3.0 x1 Slot * 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 Port 1 x PS/2 Keyboard / Mouse 1 x DVI-D Port 1 x DP Port 1 x HDMI® Port 1 x LAN port 1 x USB 3.2 (Gen2) Type-C Port 1 x USB 3.2 (Gen2) Port 4 x USB 3.2 (Gen1) Port 2 x USB 2.0 Port 3 x Audio Jack

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INTERNAL I/O	6 x SATA III (6.0Gb/s) Connector 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 1 x CPU water cooling connector (CPU_OPT) 2 x System Fan Connector 1 x Front Panel Header 1 x Front Audio Header 1 x Speaker Header 1 x Clear CMOS Header 1 x S/PDIF out Connector 1 x COM Port Header 2 x LED Header (5V) 1 x LED Header (12V) * 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	Racing GT Utility BullGuard
ACCESSORIES	4 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide
FEATURES	VIVID LED DJ A.I FAN PCIe M.2 4.0 LED ROCK ZONE

OVERVIEW

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

HD Audio

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.

Smart Ear

Smart EAR is a windows-based audio utility which allows you to easily adjust system volume. With its user-friendly GUI, you can also increase or decrease impedance setting (Low/High Gain) to optimize your headphone performance. You can easily enjoy high-quality and awesome sound.

Hi-Fi Cap

Hi-Fi Cap delivers low noise, low distortion, and wide bandwidth to achieve the highest sound resolution and sound expansion. It ensures the most realistic sound effects to gaming enthusiasts.

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.

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.

DisplayPort

DisplayPort is a digital display interface developed by the Video Electronics Standards Association (VESA). The interface is primarily used to connect a video source to a display device such as a computer monitor, though it can also be used to carry audio.

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.

ATI CrossFire X™ Technology

ATI CrossFireX™ is the ultimate multi-GPU performance gaming platform. With game-dominating power, ATI CrossFireX technology enables two or more discrete graphics processors to work together to improve system performance. It supports up to four ATI Radeon™ HD graphics cards, making it the most scalable gaming platform ever!

Integrated HDMI® with HDCP

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

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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.

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 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.

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.

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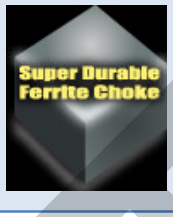
Dr. MOS

Dr. MOS integrates driver ICs and high-side / low-side MOSFETs into a small package to reduce switching losses that enables superior efficiency and performance at higher switching frequencies.

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 Ferrite Choke

Super Durable Ferrite Choke brings the benefits of higher current capacity, lower energy loss and better power stability.

Super Durable Solid Caps

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

Iron Bar Protection

BIOSTAR's exclusive Iron Bar Protection can reinforce PCI-E x16 slots to handle heavier graphics cards, prevent bending, and extend longevity of the slot, making the new-gen BIOSTAR motherboards much more robust.

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.

2.5Guard

2.5GUARD features 2.5G having higher data transfer speeds and can strengthen electrical stability and prevent damage from lightning strikes and electrical surges. It's 2.5X improvement than standard Ethernet connections.

VIVID LED DJ

New VIVID LED DJ with more customizability and options to control multiple RGB/ARGB LED lighting zones independently. Users can control color, speed and brightness for different modes at ease.

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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 lead users into the setup layer directly.

EZ Mode

BIOSTAR EZ Mode makes everything as simple and efficient as possible. It has an attractive easy-to-use BIOS system interface that guides users to solve their problems with ease. It lays out the things which you often do in BIOS system to make the flow smooth and seamless.

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.

CPU OPT

BIOSTAR offers one more fan header which is called CPU OPT. Users can use it to connect any kind of water coolers for a liquid cooling system. Keep your computer stable and enjoy your machine at the utmost potential.

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.

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HDMI®

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*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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