

## B550T-SILVER Motherboard



- Supports AMD Ryzen 3<sup>rd</sup> Gen (Matisse / Renoir) and 4<sup>th</sup> Gen (Vermeer) processors
- AMD B550 single chip architecture
- Supports 2-DIMM DDR4-4933+(OC)/4800(OC)/4600(OC)/4400(OC)/4000(OC)/3800(OC)/3600(OC)/3200/2933/2667/2400/2133 up to 64GB maximum capacity
- Supports USB 3.2 Gen2
- Supports PCIe M.2 4.0 (64Gb/s)
- Supports HDMI 2.1 4K resolution
- Supports WiFi 6 module(No WiFi 6 card included)

### Specification

CPU SUPPORT	Socket AM4 support AMD Ryzen 3 <sup>rd</sup> Gen (Matisse/ Renoir) and Ryzen 4 <sup>th</sup> Gen (Vermeer/ Future) processors Support for future AMD Ryzen processors with BIOS update * Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for CPU support list.
MEMORY	4 <sup>th</sup> Gen AMD Ryzen Processors (Vermeer/ Future CPUs): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/2133 3 <sup>rd</sup> Gen AMD Ryzen Processors (Matisse CPUs): Supports Dual Channel DDR4 4400+(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/ 2667/ 2400/2133 3 <sup>rd</sup> 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 2 x DDR4 DIMM Memory Slots, Max. Supports up to 64 GB Memory Each DIMM supports non-ECC and ECC Un-buffered 8/ 16/ 32 GB DDR4 module * Please refer to <a href="http://www.biostar.com.tw">www.biostar.com.tw</a> for Memory support list.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP
STORAGE	Total supports 1 x M.2 socket and 4 x SATA III (6Gb/s) ports 1 x M.2 (M Key) Socket (M2_PCIEG4_64G_SATA): Supports M.2 Type 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 4 x 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.
LAN	Realtek RTL8125B 10/ 100/ 1000/ 2500 Mb/s auto negotiation, Half / Full duplex capability
AUDIO CODEC	ALC897 7.1 Channels, High Definition Audio, Hi-Fi (Front)






USB	<ul style="list-style-type: none"> <li>1 x USB 3.2 (Gen2) Type-C port (1 on rear I/O)</li> <li>1 x USB 3.2 (Gen2) port (1 on rear I/O)</li> <li>6 x USB 3.2 (Gen1) ports (4 on rear I/Os and 2 via internal headers)</li> <li>2 x USB 2.0 ports (2 via internal headers)</li> </ul>
EXPANSION SLOT	<ul style="list-style-type: none"> <li>AMD Ryzen 5000/3000 Series Processors 1 x PCIe 4.0 x16 Slot (x16 or x4/x4/x4/x4 mode)</li> <li>or</li> <li>AMD Ryzen 5000 G/4000 G Series Processors 1 x PCIe 3.0 x16 Slot (x16 or x8/x4/x4 mode) * According to different CPUs will have different speeds * PCIe 4.0 speed only for AMD Ryzen 3rd Gen Matisse and 4th Gen Vermeer CPUs</li> </ul>
REAR I/O	<ul style="list-style-type: none"> <li>2 x WIFI Antenna Ports</li> <li>1 x PS/2 Mouse/ Keyboard Port</li> <li>1 x HDMI Port</li> <li>1 x DP Port</li> <li>1 x LAN port</li> <li>1 x USB 3.2 (Gen2) Type-C Port</li> <li>1 x USB 3.2 (Gen2) Port</li> <li>4 x USB 3.2 (Gen1) Ports</li> <li>3 x Audio Jack</li> </ul>
INTERNAL I/O	<ul style="list-style-type: none"> <li>4 x SATA III (6.0Gb/s) Connectors</li> <li>1 x M.2 (E Key) Socket : Supports 2230 type Wi-Fi &amp; Bluetooth module</li> <li>1 x USB 2.0 Header (each header supports 2 USB 2.0 ports)</li> <li>1 x USB 3.2 (Gen1) Header (each header supports 2 USB 3.2 (Gen1) ports)</li> <li>1 x 8-Pin Power Connector</li> <li>1 x 24-Pin Power Connector</li> <li>1 x CPU Fan Connector</li> <li>1 x CPU water cooling connector (CPU_OPT)</li> <li>1 x System Fan Connector</li> <li>1 x Front Panel Header</li> <li>1 x Front Audio Header</li> <li>1 x Internal Stereo Speaker Header</li> <li>1 x Clear CMOS Header</li> <li>1 x LED Header (5V)</li> <li>1 x LED Header (12V)</li> <li>* M.2 (E key) Wi-Fi card is not provided</li> </ul>
H/W MONITORING	<ul style="list-style-type: none"> <li>CPU / System Temperature Monitoring</li> <li>CPU / System Fan Monitoring</li> <li>Smart / Manual CPU Fan Control</li> <li>System Voltage Monitoring</li> </ul>
DIMENSION	Mini ITX Form Factor Dimension: 17cm x 17cm ( W x L )
OS SUPPORT	<ul style="list-style-type: none"> <li>Supports Windows 10(64bit) / 11(64bit)</li> <li>*Biostar reserves the right to add or remove support for any OS with or without notice.</li> </ul>
BUNDLE SOFTWARE	<ul style="list-style-type: none"> <li>Racing GT Utility</li> <li>BullGuard</li> </ul>
ACCESSORIES	<ul style="list-style-type: none"> <li>4 x SATA Cable</li> <li>1 x I/O Shield</li> <li>1 x DVD Driver</li> <li>1 x Quick Guide</li> <li>1 x WiFi antenna accessories</li> </ul>
FEATURES	<ul style="list-style-type: none"> <li>VIVID LED DJ</li> <li>A.I FAN</li> <li>PCIe M.2 4.0</li> <li>LED ROCK ZONE</li> </ul>

# OVERVIEW

	<p><b>AMD B550 chipset</b></p> <p>AMD B550 is the high-end chipset for overclockers and tweekers 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.</p>
	<p><b>HD Audio</b></p> <p>Provides high quality sound with minimal loss of audio fidelity.</p>
	<p><b>Hi-Fi Ground</b></p> <p>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.</p>
	<p><b>Smart Ear</b></p> <p>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.</p>
	<p><b>Hi-Fi Cap</b></p> <p>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.</p>
	<p><b>HDMI 4K2K</b></p> <p>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.</p>
	<p><b>DisplayPort</b></p> <p>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.</p>
	<p><b>DX12</b></p> <p>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.</p>
	<p><b>PCIe M.2</b></p> <p>PCIe M.2 32Gb/s delivers the highest bandwidth and lower latency. It is 3 times faster compared with PCIe M.2 10Gb/s.</p>

	<h3>SATAIII 6Gbps</h3> <p>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.</p>
	<h3>Dual DDR4</h3> <p>The primary advantages of DDR4 over DDR3, include higher module density, lower voltage requirements, coupled with higher data transfer rate.</p>
	<h3>PCIe 4.0</h3> <p>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.</p>
	<h3>PCIe 4.0 M.2</h3> <p>PCIe 4.0 M.2 delivers the highest bandwidth and lower latency. It is 2 times faster compared with PCIe 3.0 M.2 .</p>
	<h3>USB 3.2 Gen2 Type-C</h3> <p>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.</p>
	<h3>USB 3.2 Gen1 Type-A</h3> <p>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.</p>
	<h3>Dr. MOS</h3> <p>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.</p>
	<h3>Digital PWM</h3> <p>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.</p>
	<h3>Super Durable Solid Caps</h3> <p>The best quality solid state capacitors with ultra low ESR design, the Super Durable Solid Caps doubles the lifespan.</p>

	<h3>Iron Bar Protection</h3> <p>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.</p>
	<h3>ESD Protection</h3> <p>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.</p>
	<h3>OC / OV / OH Protection</h3> <p>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.</p>
	<h3>2.5Guard</h3> <p>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.</p>
	<h3>VIVID LED DJ</h3> <p>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.</p>
	<h3>UEFI BIOS</h3> <p>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.</p>
	<h3>EZ Mode</h3> <p>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.</p>
	<h3>A.I FAN</h3> <p>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.</p>
	<h3>LED ROCK ZONE</h3> <p>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.</p>

	<p><b>CPU OPT</b></p> <p>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.</p>
	<p><b>BIOSTAR RGB SYNC</b></p> <p>BIOSOTAR RGB SYNC is designed to create your personalized lighting effects. Let all the RGB peripherals and components sync together.</p>
	<p><b>Debug LED</b></p> <p>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.</p>
	<p><b>Smart Update</b></p> <p>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.</p>
	<p><b>HDMI</b></p> <p>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.</p>

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