B550GTA 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)/3200/2933/2667/2400/2133/1866 up to 128GB maximum capacity
- Supports USB 3.2 Gen2
- Supports PCIe M.2 4.0 (64Gb/s)
- Supports HDMI® 4K resolution
- Supports Realtek 2.5GbE LAN

Specifcation

CPU SUPPORT	Socket AM4 support AMD 3rd Gen AMD Ryzen™ (Matisse / Renoir) processors 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	3rd Gen AMD Ryzen Processors (Matisse CPUs) Support for 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) Support for 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 * DDR4 - 2667 only for Ryzen CPU. * Please refer to www.biostar.com.tw for Memory support list.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP
STORAGE	Total supports 2x M.2 socket and 6 x SATA III (6Gb/s) ports 1x M.2 (M Key) Socket (M2_PCIE_SATA1): 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_PCIE_SATA2): Supports M.2 Type 2242/ 2260/ 2280 SSD module Supports PCIe 3.0 x 4 (32Gb/s) & SATA III (6.0Gb/s) SSD 6 x SATA III Connector (6Gb/s) : Supports AHCI & RAID 0, 1, 10 * M.2 (M2_PCIE_SATA1) 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_PCIE_SATA2) Socket is occupied by SATA mode, the SATA_2L connector will be disabled. * When M.2 (M2_PCIE_SATA2) Socket is occupied by PCIe mode, the SATA_2U/SATA_2L connector will be disabled.

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ESG

LAN	RTL8125 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) Type-A 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	1 x PCI 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 x 16 Slot (x4 mode) 3 x PCIe 3.0 x 1 Slot * According to different CPUs will have different speeds. * PCIe 4.0 speed only for AMD® Ryzen™ 3rd Gen Matisse. * When using PCIe x 1 slots (PEX1_1/ PEX1_2/ PEX1_3), PCIe x 16 slot (PEX16_SB_1) will be adjusted to x1 lanes.
REAR I/O	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) Type-A Port 4 x USB 3.2 (Gen1) Port 2 x USB 2.0 Port 3 x Audio Jack
INTERNAL I/O	6 x SATA III (6.0Gb/s) Connector 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 (OPT_FAN1) 2 x System Fan Connector 1 x Front Panel Header 1 x Front Audio 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)
H/W MONITORING	CPU / System Temperature Monitoring CPU / System Fan Monitoring Smart / Manual CPU Fan Control System Voltage Monitoring
DIMENSION	ATX Form Factor Dimension: 30.5cm 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

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ACCESSORIES	4 x SATA Cable 1 x DVD Driver 1 x User Manual
FEATURES	VIVID LED DJ M.2 Cooling Protection A.I FAN Iron Slot Protection 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.

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.

Hi-Fi Sound

BIOSTAR Hi-Fi series motherboards have a sampling rate of 192kHz/24-bit which delivers a high quality audio through an analog connection to your home theater system, multi-channel speakers and high-end headphone. You can enjoy real Blu-ray grade high-definition sound that you've never experienced before.

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.

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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.

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 .

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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.

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.

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.

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.

Iron Slot Protection

The exclusive Iron Slot Protection can reinforce PCI-E x16 slots to handle heavier graphics cards, prevent bending, and extend longevity of the slot, making the new-gen RACING Series much more robust.

M.2 Cooling Protection

M.2 heatsink features ultra-high cooling efficiency for protecting the M.2 SSD from thermal problems, extending the M.2 SSD lifespan for long-term usage and stable operation. To top it off, this cooling design makes the performance of certain M.2 (PCI-e 3.0x4) products most efficient even under high-temperature operating.

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.

PROTAR
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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!

Armor Gear

The new Armor Gear, which offers more stability and durability, comes with I/O Armor to protect I/O interfaces from static electricity. It is equipped with full-color RGB LED light that users can use VIVID LED DJ to synchronize it and build your own color gaming lights.

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.

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.

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