X570GT8 Motherboard

- Supports AMD Ryzen 5000 Vermeer / Ryzen APU processors
- AMD X570 single chip architecture
- Supports 4-DIMM DDR4- 4400+(OC) / 4000(OC) / 3600(OC) / 3200(OC) / 2933(OC) / 2667 / 2400 / 2133 / 1866 up to 128GB maximum capacity
- Supports USB 3.1 Gen2 Type C
- Supports PCI-e M.2 4.0 (64Gb/s)
- Supports HDMI® 4K resolution

Specifcation	
CPU SUPPORT	Supports AMD AM4 Socket for 3rd and 2nd Gen Ryzen/3rd, 2nd and 1st Gen Ryzen with Radeon Vega Graphics Processors Supports AMD AM4 Socket for 4th Gen (Vermeer) processors
MEMORY	Supports Dual Channel DDR4 1866/ 2133/ 2400/ 2667 Supports Dual Channel DDR4 2933(OC)/ 3200(OC)/ 3600(OC)/ 4000(OC)/ 4400+(OC) 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 * DDR4 - 2667 only for Ryzen CPU. * Please refer to www.biostar.com.tw for Memory support list. • Please insert two memory modules into the matching slot numbers* in order to run in dual channel mode and we recommend you install them in the DDR4_A2 and DDR4_B2 sockets for optimum performance. *Please refer to the user manual. • The system stability that vary depending on the processor capability, no matter you run XMP at DDR4 3200MHz or higher. • If you'd like to insert two or four memory modules into the matching slot numbers in order to run in dual channel mode and we recommend you use the same memory capacities, brands, speeds, and chips. • Because there are varieties of memory modules on the market, we can only verify some of them. The list of all the memory modules shown above is for reference only.
INTEGRATED VIDEO	By CPU model Supports DX12 Supports HDCP

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STORAGE	6x SATA III Connector (6Gb/s) : Supports AHCI & RAID 0, 1, 10 2x M.2 (Key M) Slot (PCIE-M2_1/ PCIE-M2_3) : Supports M.2 Type 2242/ 2260/ 2280 SSD module Supports PCI-E Gen4 x4 (64Gb/s) & SATA III (6.0Gb/s) SSD 1x M.2 (Key M) Slot (PCIE-M2_2) : Supports M.2 Type 2242/ 2260/ 2280/ 22110 SSD module Supports PCI-E Gen4 x4 (64Gb/s) & SATA III (6.0Gb/s) SSD * M.2 (Key M) Slot (PCIE-M2_1) : Supports PCI-E Gen4 x4 (64Gb/s) speed, which depends only on Ryzen 3rd Gen Matisse. * When SATA3U/ SATA3L connector is occupied, the PCIE-M2_3 slot only supports SATA mode.
LAN	Intel i211AT 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability
AUDIO CODEC	ALC1220 7.1 Channels, High Definition Audio, Hi-Fi(Front + Rear)
USB	1x USB 3.1 Gen2 (10Gb/s) Type-C port (1 on rear I/Os) 1x USB 3.1 Gen2 (10Gb/s) Type-A port (1 on rear I/Os) 6x USB 3.1 Gen1 (5Gb/s) port (4 on rear I/Os and 2 via internal headers) 2x USB 3.1 Gen1 (5Gb/s) port (2 via internal headers) : Supports LIGHTNING CHARGER(not support USB wake up function) 4x USB 2.0 port (4 via internal headers)
EXPANSION SLOT	1x PCIe 4.0 x16 Slot (PEX16_1) * Note : Supports x16 (x16, x8) lanes with AMD Ryzen 2nd and 3rd Gen processors. Supports x8 lanes with AMD Ryzen with Radeon Vega Graphics processors. 1x PCIe 4.0 x16 Slot: Supports x8 mode (PEX16_2) * Note : Supports x8 lanes with AMD Ryzen 2nd and 3rd Gen processors. PEX16_2 slot only AMD Matisse and Pinnacle support. 1x PCIe 4.0 x16 Slot: Supports x4 mode (PEX16_SB_1) * Note 3x PCIe 4.0 x1 Slot * Note * According to different CPUs will have different speeds. * Note: PCIe 4.0 speed only for AMD Ryzen 3rd Gen Matisse.
REAR I/O	1x PS/2 Keyboard / Mouse 1x DVI-D Port 1x HDMI® Port 1x DP Port 1x LAN port 1x USB 3.1 Gen2 (10Gb/s) Type-C Port 1x USB 3.1 Gen2 (10Gb/s) Type-A Port 4x USB 3.1 Gen1 (5Gb/s) Port 5x Audio Jack 1x SPDIF_Out
INTERNAL I/O	6x SATA III (6.0Gb/s) Connector 2x USB 2.0 Header (each header supports 2 USB 2.0 ports) 2x USB 3.1 Gen1 (5Gb/s) Header (each header supports 2 USB 3.1 Gen1 ports) 1x 4-Pin Power Connector 1x 8-Pin Power Connector 1x 24-Pin Power Connector 2x CPU Fan Connector 3x System Fan Connector 1x Front Panel Header 1x Front Audio Header 1x Clear CMOS Header 2x LED Header (12V/ 5V)
DIMENSION	ATX Form Factor Dimension: 30.5 cm x 24.4 cm (W x L)

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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 EVO Utility BullGuard
ACCESSORIES	4 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x User Manual
FEATURES	VIVID LED DJ Digital Power+ Lightning Charger M.2 Cooling Protection Dual BIOS Supports 100% Solid capacitor A.I FAN Iron Slot Protection PCIe M.2 4.0 LED ROCK ZONE RACING ARMOR RGB Memory Sync RAZER Chroma Sync

OVERVIEW

AMD X570 chipset

AMD X570 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

Double Hi-Fi

Unlike the previous design thinking, once again BIOSTAR first to embed "Double Hi-Fi" AMP IC, in addition to retaining the exclusive Hi-Fi high-quality without change. "Double Hi-Fi" has brand new features with plug-and-play headphone to enjoy the same quality of sound; whether the sound source output set in the front or rear can have both high-quality Hi-Fi sound.

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.

S/P DIF Output on board

Onboard Optical & Coaxial connector supports your desktop in transferring the non-distortion digital audio output to the AV amplifier and professional speaker system.

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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.

Lightning Charger

BIOSTAR new H/W design Lightning Charger supports the functions of USB port and quick charge with the amazingly fast charging time to help your mobile devices achieve up to a 75% charge in just 30 minutes; meanwhile, it supports QC2.0 (up to 12V/1.5A output), APPLE mode (5V/2.4A), and BC1.2.

Intel GbE LAN

Unlike ordinary LAN solution, Intel® GbE LAN offers fewer CPU resource consumption and more bandwidth stability. Thus, Intel® LAN is the best choice for performance seekers.

USB 3.1 Gen 1 Type-A

Experience Fastest data transfers at 5 Gbps with USB 3.1 Gen 1--the new latest connectivity standard. Built to connect easily with next-generation components and peripherals, USB 3.1 Gen 1 transfers data 10X faster and backward compatible with previous USB 2.0 components.

USB 3.1 Gen 2 Type-A

USB 3.1 Gen 2 is a new standard known as SuperSpeed+, in order to highlight the improvement from USB3.1 Gen 1(SuperSpeed) transmission speed. The new standard doubles data transfer rate from 5Gbps to 10Gbps. It is also backward compatible with existing USB3.0 connectors and all the USB 2.0 devices.

USB 3.1 Gen 2 Type-C

USB 3.1 Gen 2 doubles the data transfer rate from 5Gbps to 10Gbps compared with USB 3.1 Gen 1. The Type-C connector is fully reversible which makes it convenient, and it also can save your charging time on portable devices up to 50% compared with Type-A connector.

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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.

PCIe 4.0

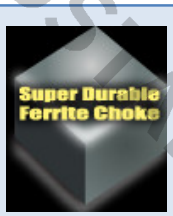
PCIe 4.0 is the ubiquitous and general-purpose PCI Express I/O standard. At 16GT/s bit rate, the interconnect performance bandwidth is doubled over PCIe 3.0, while preserving compatibility with software and mechanical interfaces.

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 .

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.

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.

12 Phase Power Design

8+4 phase VRM design with high quality power components such as low IR Direct FET MOSFETs for lower temperatures, Ferrite core chokes with lower hysteresis loss, and high quality Japanese-made solid capacitors all add up to ensure longer system life and lower power loss.

100% Solid Caps

With armor-plated Biostar Technology, all capacitors are placed with 100% solid capacitors that have a lasting life cycle, durability and stability for crucial components.

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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.

Tough Power Connectors

Tough Power Connectors are very robust that have larger area to ensure stable and reliable power supply. They can pack more power and durability to make your PC last longer.

Super Durable Inductor

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

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.

Dual BIOS

Dual BIOS technology offers a backup BIOS chip to take over the failed main BIOS and recover the system automatically without factory repair.

Super LAN Surge Protection

Super LAN Surge Protection, providing LAN port with more advanced antistatic protection capabilities by adding an integrated chip to strengthen electrical stability and prevent damage from lightning strikes and electrical surges. SLSP (Super LAN Surge Protection) series motherboard upgrades the existing system protection standards with maximum 4X protection comparing to other board makers.

Iron Heart Protection

Iron Heart Protection is to strengthen the back PCB of CPU, so that the motherboard would not be bended because of the pressure of heavy CPU cooler. This design could reduce the potential risk of damages on circuit as well as on PCB. Furthermore, the newly designed Iron Heart Protection could help remove thermal air out of VRM and other key components through its special metal material. Iron Heart Protection is perfect solution of cooling and reinforcing motherboard.

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.

PROTOTYPE
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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!

Racing Armor

The new Racing Armor comes with I/O Armor and Audio Armor to protect the I/O interfaces and audio electronic components from static electricity. What's better, it exclusively features the onboard RGB full-color LED lightings with BIOSTAR VIVID LED DJ application for DIY lovers to create their unique personal styles by changing PC color schemes.

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.

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.

Header Zone

Users can easily assemble their own computer, a simple-swap data discs and other accessories.

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.

Super Rapid Debug 3

Super Rapid Debug 3 posts critical POST code information on a vivid digital LED display.

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.

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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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