A620MP-E PRO Motherboard

- Supports AMD Ryzen 7000 / 8000 / 9000 series processors
- AMD A620 single chip architecture
- Supports 4-DIMM DDR5 up to 192 GB Memory
- Supports USB 3.2 Gen1
- Supports PCIe 4.0
- Supports PCIe 4.0 M.2 (64Gb/s)
- Supports HDMI 4K resolution

Specifcation

CPU SUPPORT	Socket AM5 supports AMD® Ryzen™ 7000 / 8000 / 9000 series processors Supports for future AMD Ryzen processors with BIOS update * Please refer to www.biostar.com.tw for CPU support list.
MEMORY	AMD Ryzen 7000 / 8000 / 9000 series Processors: Supports Dual Channel DDR5 4800 / 5200 / 5400(OC) / 5600(OC) / 6000+(OC) 4 x DDR5 DIMM Memory Slots, Max. Supports up to 192 GB Memory Each DIMM supports non-ECC 8/ 16/ 24/ 32/ 48 GB DDR5 module * Please refer to www.biostar.com.tw for Memory support list.
INTEGRATED VIDEO	Supports DX12 Supports HDCP
STORAGE	Total support 1 x M.2 Socket and 4 x SATA (6Gb/s) ports AMD Ryzen 7000 / 8000 / 9000 Series Processors 1 x M.2 (Key M) Socket (M2M_CPU): Supports M.2 Type 2242/ 2260/ 2280 SSD module Support PCIe 4.0 x4 (64Gb/s) - NVMe SSD AMD A620 Chipset 4 x SATA III Connectors (6Gb/s): Supports AHCI & RAID 0, 1, 10
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
USB	1 x USB 3.2 Gen2 Type-C port (1 via internal headers) 6 x USB 3.2 Gen1 ports (4 on rear I/Os and 2 via internal headers) 6 x USB 2.0 ports (2 on rear I/Os and 4 via internal headers)
EXPANSION SLOT	AMD Ryzen 7000 / 8000 / 9000 Series Processors 1 x PCIe 4.0 x16 Slot (x16 or x8/x8 mode) 2 x PCIe 4.0 x 1 Slot AMD A620 Chipset 1 x PCIe 3.0 x1 Slot

REAR I/O	2 x WiFi Antenna Ports 1 x PS/2 Keyboard/ Mouse Port 1 x BIOS update Button 1 x HDMI Port 1 x DP Port 4 x USB 3.2 (Gen1) Type-A Ports 2 x USB 2.0 Type-A Ports 1 x 2.5G LAN port 3 x Audio Jack
INTERNAL I/O	4 x SATA III Connectors (6Gb/s) 1 x M.2 (E Key) Socket : Supports 2230 type Wi-Fi & Bluetooth module 2 x USB 2.0 Headers (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 USB 3.2 (Gen2) Type-C Header (each header supports 1 USB 3.2 (Gen2) Type-C 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) 1 x System Fan Connector 1 x Front Panel Header 1 x Front Audio Header 1 x Internal Stereo Speaker Header 1 x Clear CMOS Header 1 x COM Port Header 1 x TPM 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 Smart / Manual CPU Fan Control CPU/DDR Voltage Monitoring
DIMENSION	Micro ATX Form Factor Dimension: 24.4cmx24.4cm (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
ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide 1 x WiFi antenna accessories

OVERVIEW

AMD A620 chipset

AMD A620 chipset provides a simple, stable platform and more than enough connectivity and bandwidth options to satisfy both demanding home users and media aficionados.

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 AMP
The built-in amplifier can drive major high-end headphones with over 100dB loads and offer wide band-width, low noise, high slew rate and low distortion audio source from front panel I/O. Gaming enthusiasts can enjoy a fuller range of dynamic sound with crisper details and less distortion.

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.

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.

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.

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.

DDR5

DDR5 provides 50% higher bandwidth than DDR4, the frequency can be up to 6000+(OC)MHz, and a single memory capacity can reach 48GB. It also supports dual channels and has lower power consumption, which can provide better performance and experience for overclockers.

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.

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 Solid Caps

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

Super Durable Inductor

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

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.

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 leads users into the setup layer directly.

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.

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.

SMART BIOS UPDATE

The easiest way to update the BIOS is provided.
Connect the USB driver to the SMART BIOS USB port to update.

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!