A520MHP Motherboard

- Support AMD RyzenTM 5000/5000G/4000G/3000/3000G series Processors
- AMD A520 single chip architecture
- Supports 2-DIMM DDR4 up to 64 GB Memory
- Supports USB 3.2 Gen1
- Supports PCIe M.2
- Supports HDMI® 4K resolution

Specifcation

CPU SUPPORT	Support AMD Ryzen 5000/5000G/4000G/3000/3000G series 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 - 4266+(OC)/4133(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/2667/ 2400/2133 4th Gen AMD Ryzen with Radeon Graphics Processors (Cezanne APUs): Supports Dual Channel DDR4 - 4400+(OC)/ 4266(OC)/4133(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/2933/ 2667/ 2400/2133 3rd Gen AMD Ryzen Processors (Matisse CPUs): Supports Dual Channel DDR4 - 4266+(OC)/4133(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/ 2933/2667/ 2400/2133 3rd Gen AMD Ryzen with Radeon Graphics Processors (Renoir APUs): Supports Dual Channel DDR4 - 4400+(OC)/ 4266(OC)/4133(OC)/ 4000(OC)/ 3800(OC)/ 3600(OC)/ 3200/2933/ 2667/ 2400/2133 2 x DDR4 DIMM Memory Slot, Max. Supports up to 64 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
STORAGE	Total supports 1 x M.2 socket and 4 x SATA III (6Gb/s) ports AMD Ryzen 5000/5000G/4000G/3000/3000G Processors 1 x M.2 (M Key) Socket: Supports M.2 Type 2260/ 2280 SSD module Supports PCIe 3.0 x4 (32Gb/s) - NVMe/ AHCI SSD Supports SATA III (6.0Gb/s) SSD AMD A520 Chipset 4 x SATA III Connector (6Gb/s): Supports AHCI & RAID 0, 1, 10
LAN	Realtek RTL8111H 10/ 100/ 1000 Mb/s auto negotiation, Half / Full duplex capability

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AUDIO CODEC	Realtek ALC897 7.1 Channels, High Definition Audio, Hi-Fi (Front)
USB	4 x USB 3.2 (Gen1) port (2 on rear I/Os and 2 via internal headers) 8 x USB 2.0 port (4 on rear I/Os and 4 via internal headers)
EXPANSION SLOT	AMD Ryzen 5000/3000 Processors 1 x PCIe 3.0 x16 Slot (x16 or x4/x4/x4/x4 mode) AMD Ryzen 5000G/4000G/3000G Processors 1 x PCIe 3.0 x16 Slot (x16 or x8/x4/x4 mode) AMD A520 Chipset 2 x PCIe 3.0 x1 Slot * According to different CPUs will have different speeds.
REAR I/O	1 x PS/2 Keyboard/ Mouse 1 x VGA Port 1 x HDMI® Port 1 x LAN port 2 x USB 3.2 (Gen1) Port 4 x USB 2.0 Port 3 x Audio Jack
INTERNAL I/O	4 x SATA III 6.0Gb/s Connector 1 x USB 3.2 (Gen1) Header (each header supports 2 USB 3.2 (Gen1) ports) 2 x USB 2.0 Header (each header supports 2 USB 2.0 ports) 1 x 4-Pin Power Connector 1 x 24-Pin Power Connector 1 x CPU Fan Connector 1 x System Fan Connector 1 x Front Panel Header 1 x Front Audio Header 1 x Clear CMOS Header 1 x COM Serial Header 1 x Speaker Header
DIMENSION	Micro ATX Form Factor Dimension: 19.0 cm x 23.5 cm (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.
ACCESSORIES	2 x SATA Cable 1 x I/O Shield 1 x DVD Driver 1 x Quick Guide

OVERVIEW

AMD A520 chipset

AMD A520 chipset provides a simple, stable platform and more than enough connectivity and bandwidth options to satisfy both demanding home users and media aficionados.

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HD Audio

Provides high quality sound with minimal loss of audio fidelity.

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.

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.

Integrated HDMI® with HDCP

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

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.

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.

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Super Durable Solid Caps

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

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.

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!

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.

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.

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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